Cognitive Processing Therapy

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Cognitive processing therapy (CPT) is an evidence-based, cognitive-behavioral treatment designed specifically to treat posttraumatic stress disorder (PTSD) and comorbid symptoms. This chapter will first review the theoretical underpinnings of the intervention and then provide more details about the actual protocol including a clinical case description. We then will review several special considerations and challenges in administering the protocol to specific groups of trauma survivors and finally end with an overview of the published randomized controlled clinical trials demonstrating the efficacy of the therapy.

10.1 Theoretical Underpinnings

The theoretical basis of CPT is cognitive theory, one of the most prominent theories explaining the onset and maintenance of PTSD. A predominant notion underlying cognitive theory of PTSD is that PTSD is a disorder of non-recovery from a traumatic event (Resick et al. 2008b). Thus, PTSD is not a condition with a prodromal phase or one in which early signs and symptoms are observed. Rather, in the majority of cases, the widest variety and most severe symptoms of PTSD are experienced in the early days and weeks after exposure to the traumatic event has ended. With

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time, the majority of individuals who have been exposed to a traumatic event(s) will experience an abatement of PTSD symptoms, or a natural recovery from the trauma. In a substantial minority of cases, individuals will continue to experience symptoms consistent with a diagnosis of PTSD. In other words, for this minority of all trauma survivors, natural recovery from the trauma has been impeded.

According to cognitive trauma theory of PTSD, avoidance of thinking about the traumatic event, as well as problematic appraisals of the traumatic event when memories are faced, contributes to this non-recovery. More specifically, individuals who do not recover are believed to try to assimilate the traumatic event into previously held core beliefs that are comprised of positive or negative beliefs about the self, others, and the world. Assimilation serves as an attempt to construe the traumatic event in a way that makes it fit, or to be consistent, with these preexisting beliefs. A common example of assimilation in those with PTSD is just-world thinking, or the belief that good things happen to good people and bad things happen to bad people. In the case of traumatic events (i.e., bad things), the individual assumes that he/she did something bad that may have led to the event or that the event is punishment for something he/she may have done in the past. An example of this type of thinking by a sexual assault survivor: "If I just hadn't been drunk that night (i.e., bad behavior), then I wouldn't have been assaulted (i.e., bad consequence)." Another common type of assimilative thinking is hindsight bias, or evaluating the event based on information that is only known after the fact (Fischhoff 1975). At its essence, assimilation is an effort to exert predictability and control over the traumatic event after the fact that paradoxically leaves the traumatized individual with unprocessed traumatic material that is perpetually reexperienced.

Another tenant of cognitive trauma theory is that problematic historical appraisals about traumatic events (i.e., assimilation) lead to, or seemingly confirm, overgeneralized maladaptive schemas and core beliefs about the self, others, and the world after traumatization. In other words, individuals over-accommodate their beliefs based on the traumatic experience. Over-accommodation involves the modification of existing schemas based on appraisals about the trauma, but these modifications in schemas are too severe and overgeneralized. A common example of over-accommodation is when a traumatized individual comes to believe, based on his/her appraisals of his/her trauma, that the world is a completely unsafe and unpredictable place when he/she previously believed that the world was relatively benign or at least that bad things would not happen to him/her. Alternatively, traumatized individuals may have preexisting negative schemas, usually a result of a history of prior traumatization or other negative life events, that others cannot be trusted or that they have no control over bad things happening to them. In these cases, traumatic experiences are construed as proof for the preexisting negative schemas. Borrowing from earlier work by McCann and Pearlman (1990), cognitive trauma theory identifies beliefs related to the self and others that are often over-accommodated and contribute to non-recovery. These beliefs are related to safety, trust, power/control, esteem, and intimacy. A strength of cognitive trauma theory of PTSD is that it accounts for varying preexisting beliefs in each area that may have been positive or negative based on the client's prior trauma history. In CPT,

assimilated and over-accommodated beliefs are labeled "Stuck Points," describing thinking that interferes with natural recovery, thereby keeping people "stuck" in PTSD. Stuck Points are targeted in therapy.

According to cognitive trauma theory, clients must allow themselves to experience the natural emotions associated with the event that are typically avoided in the case of PTSD. Natural emotions are emotions that are considered to be hardwired and emanate directly from the traumatic event (perhaps sadness of loss of a loved one during trauma, fear of the danger associated with the trauma, etc.). Natural emotions that have been suppressed or avoided contribute to ongoing PTSD symptoms. According to cognitive trauma theory, natural emotions do not perpetuate themselves and, thereby, contrary to behavioral theories of PTSD (Foa and Kozak 1986), do not require systematic exposure to achieve habituation to them. The client is encouraged to approach and feel these natural emotions, which have a self-limiting course once they are allowed to be experienced.

In contrast, maladaptive misappraisals about the trauma in retrospect (i.e., assimilation), as well as current-day cognitions that have been disrupted (i.e., over-accommodation), are postulated to result in manufactured emotions. Manufactured emotions are the product of conscious appraisals about why the trauma occurred and the implications of those appraisals on here-and-now cognitions. In the case of a natural disaster survivor who believed that the outcomes of the disaster occurred because he/she or others did not do enough to protect himself/herself and his/her family (self or other blame), he/she is likely to feel ongoing guilt and/or anger and be distrustful of himself/herself or others. In this way, trauma-related appraisals are manufacturing ongoing negative emotions that will be maintained as long as he/she continues to think in this manner. The key to recovery with regard to manufactured emotions is to foster accommodation of the information about the traumatic event. In other words, clients are encouraged to change their minds enough to account for the event in a realistic manner without changing their minds too much resulting in overgeneralized and maladaptive beliefs.

Based on the results of a clinical trial (Resick et al. 2008a, b) that sought to dismantle the original CPT protocol, the cognitive component of CPT was given primacy in the most recent iteration of the treatment manual (Resick et al. 2017a). This conceptual evolution resulted in a shift in the protocol. Historically, the full treatment protocol had included a written trauma narrative that was termed "written exposure." Prior to this study, CPT was often classified as an exposure therapy in systemic reviews and practice guidelines. As the therapy evolved, it was noted that the "written exposure" that was standard in the original protocol did not meet the definition of an exposure intervention, typically described as repeated, sustained repetitions of the trauma memory in significant detail with the goal of habituation. Because this element of CPT did not meet the dose requirement of a true exposure, this terminology was changed to "written account" (Resick et al. 2017a). The dismantling trial (Resick et al. 2008a, b) sought to compare the full original CPT protocol (which included the written account) to each of the theorized active elements, cognitive therapy-only (termed CPT-C), and a version of the therapy that included only the written account (termed WA). The results of this trial revealed that the

cognitive-only version of the therapy resulted in the lowest drop-out rates and the fastest, most straightforward recovery. Essentially, more time is available to focus on the cognitive work over the course of the therapy in the cognitive-only condition. As a result of this study and others, CPT (without the written account) is now the standard protocol and clinicians have the option of adding a written account (CPT + A). This evolution is described in more detail in the latest published treatment manual (Resick et al. 2017a).

The shift in the standard format of the original protocol (making the written account optional) does not diminish the focus on the trauma. Notably, this shift affords the providers more opportunity to more quickly hone in on the trauma memory and less time spent in re-directing clients' avoidance of the trauma details which is often particularly pronounced in the writing of the trauma account. Clients engage in a number of avoidance strategies around this particular therapy element including simply not completing the assignment, writing effusively about events leading up to and following the trauma, but including very little detail about the trauma itself, writing about something else entirely, or writing the account as one would write a police report—in a very detached fashion (Galovski et al. 2020a). All of these avoidance strategies result in lost time within and between sessions. Relying more on cognitive techniques like Socratic questioning can facilitate a more expedient path to engaging with the trauma memory and, ultimately, recovery from PTSD (Farmer et al. 2017). That said, some clients may benefit from writing the trauma account. There is little data to predict for whom the addition of this element of therapy will be most effective, although one secondary analysis of the dismantling study (Resick et al. 2008a, b) found that women with higher levels of dissociation responded better to CPT with the written account (Resick et al. 2012a, b). Current guidelines recommend that clinicians offer the option of writing the trauma to the client. This shared decision-making may optimize client engagement in therapy irrespective of the choice.

10.2 Clinical Description of CPT

CPT has historically been administered over 12 sessions in individual, group, or combined formats. However, research (Galovski et al. 2012) has suggested that a more variable course of treatment may be most beneficial to clients. As a result, the length of therapy is dictated by client's progress and can end prior to session 12 if the patient has recovered or can continue for several additional sessions in the event the client has not yet achieved meaningful change. The administration of CPT can be most briefly explained in terms of phases of treatment. During the pretreatment phase (Phase 1), the clinician will assess the presence of PTSD as well as consider the host of usual treatment priorities (suicidality, homicidality) and the presence of potentially interfering comorbid conditions such as current mania, psychosis, and substance dependence. Special challenges to treatment will be discussed later in this chapter. The next phase (Phase 2, sessions 1–3) consists of education regarding

PTSD and the role of thoughts and emotions in accordance with cognitive theory described above. Phase 3 (sessions 4–5) consists of engaging with the memory of the actual traumatic event (as opposed to avoiding the memory) and providing the client the opportunity to feel his/her related natural emotions. The goals are the discovery of Stuck Points preventing the client's recovery and the expression of natural affect associated with the trauma memory. In Phase 4 of treatment (sessions 6 and 7), the clinician uses Socratic Dialogue to begin to aid the client in challenging Stuck Points. This process is complemented by clinical tools (a series of worksheets) that aid the client in implementing formal challenging of Stuck Points between sessions at home. Phase 5 (sessions 8–12) often marks the transition to a more specific focus on over-accommodated Stuck Points with individual sessions dedicated to the trauma themes of safety, trust, power and control, esteem, and intimacy. Phase 5 also includes "facing the future" and focuses on relapse prevention, specifically targeting Stuck Points that might interfere with the maintenance of therapeutic gains. The following provides an overview of a recent case in our clinic. Given the recent evolution of CPT to include the written account as optional versus standard, we provide an example of how Socratic Dialogue can help a patient engage fully with the trauma memory, elicit natural emotions associated with the event, and process assimilated Stuck Points that are keeping the client stuck in PTSD.

Heidi is a 48-year-old, divorced, White mother of two adult children who live outside the home. She had been employed as a long-haul trucker with her national trucking company for 20+ years prior to taking an extended leave. She sought treatment following an assault by her husband of 26 years. She described this relationship as full of "ups and downs" and that they had always been rough with each other. Over the years, the violence had escalated, particularly since her children had moved out and usually when her husband and she had been drinking. The last year had been particularly violent and had culminated in her husband nearly strangling her to death approximately 8 months ago. She was currently separated from her husband and living apart from him, although she reported that he was pressuring her to return home.

Heidi was diagnosed with PTSD and began CPT. She chose not to write the trauma account because she "hated writing" in general. Heidi understood the rationale for the therapy and the rest of the information provided in session 1. She wrote a fairly sparse Impact Statement and read it to the therapist in session 2. The goal of this assignment is to understand *why* the client thinks the trauma happened (and any assimilated Stuck Points) and the impact that the trauma has had on beliefs about oneself, the world, and others especially in terms of safety, trust, power/control, esteem, and intimacy (over-accommodated Stuck Points). The over-accommodated Stuck Points were readily apparent in Heidi's Impact Statement and centered largely around the meaningfulness of being diagnosed with PTSD and fears for her safety. Specifically, Heidi stated: "I must be weak," "The world is an unsafe place," "I clearly can't trust anyone, not even myself." Assimilated Stuck Points were less evident in her Impact Statement. Time was spent in session 2 to further develop the

Impact Statement and elicit assimilated Stuck Points. This discovery process is particularly important as it is critical to prioritize the challenging of assimilated Stuck Points before working on over-accommodated Stuck Points (Farmer et al. 2017; Galovski et al. 2020a).

Therapist (after Heidi reads her Impact Statement): *This is really good work. I can see how this trauma has clearly impacted your beliefs. I am hearing a lot of Stuck Points in here. Let's go back through and add these Stuck Points to your Stuck Point Log.* [Therapist and Heidi add to the Stuck Point Log.]

Therapist: *Looking down this list of Stuck Points, I am seeing several beliefs about yourself such as "I can't trust myself." and "I am weak." Can you give me a sense of when you started considering yourself to be weak?*

Heidi: *Well, I actually have always thought of myself as a tough person, have always been one of the guys. I actually have set several records at the local rodeo – I beat men regularly at some of the toughest events. Even with my husband, Joe, I was always able to take my knocks and even defend myself pretty well.*

Therapist: *That's really amazing – I don't know much about the rodeo but from what I've seen, those events are no joke! Where does this idea that you are weak come from?*

Heidi: *For the most part, I was pretty tough no matter what life threw at me. I needed to be tough in my job – I'm usually the only woman driver and those guys can be rough – great guys but you really can't show weakness. I could tell you some stories.*

Therapist (realizing that Heidi is avoiding the question a bit): *I can see that, for sure! It really does sound like you have extraordinary examples of being tough. I'm not hearing why you would consider yourself weak. Where was this idea of you being weak born?*

Heidi: *Honestly, feeling wound up and scared these last months, not sleeping, not being able to go to work, having nightmares – it's like I am falling apart. Tough guys don't fall apart.*

Therapist: *These last months? So since the last attack by Joe? This makes sense because the things you describe are symptoms of PTSD which we know developed from that attack. But can you explain to me where seeing yourself as weak comes from? Before Joe attacked you that night, you saw yourself as tough and now you see yourself as weak? What changed your view of yourself?*

Heidi: *Partly having PTSD, I think. It's hard for me to see myself as having a mental illness or being "fearful".*

Therapist: *Have you ever been fearful before?* [Heidi nods.] *And did you think of yourself as weak?*

Heidi: *No, not really.* [pauses for some time] *I think I'm weak because I didn't handle it. I didn't handle him that night. I didn't fight hard enough. I wasn't strong enough.*

Therapist: *OK. I am starting to understand. It sounds you are saying the reason why this attack happened the way it did on that night was because you were weak?*

Heidi [tearful for the first time]: *Yeah, I let it happen. I should have handled it. I was weak.*

Therapist: *I'm hearing what I think may be some Stuck Points here. Let's add some of these thoughts to your Stuck Points log so we can think more about them down the line a bit.*

Over the remainder of the session, the therapist and Heidi add a number of assimilated Stuck Points to the log including: "This happened because I was weak. I should have handled him. I should have fought harder. I should have known this would happen that night. I was not strong enough." In session 3, Heidi returned, and the process of gentle challenging of these Stuck Points began.

Therapist: *I'm really interested in this idea that you were quite strong in lots of ways prior to this assault and then this belief in your strength was shattered during and after the attack. Can we talk a bit more about this Stuck Point of "I am weak?" It might be helpful to start at the moment when this belief was born…*

Heidi: *It's hard to name the "moment" I started thinking this way. That whole night is a blur. Things just got out of control.*

Therapist: *Let's take it step by step. How did the evening start?*

Heidi [shifts a bit uncomfortably in her chair and looks away]: *I don't know – like any other night I guess.*

Therapist (getting Heidi started): *I remember you saying it was a Friday night and you had been on the road for the last three nights. Had you just gotten home?*

Heidi: *Yup, it had been a long week but nothing special. I was feeling a little run down and I remember that I was hoping to just grab something to eat and call it a night. But, as usual, when I'm on the road, nothing gets done and there was no food in the house. Joe wanted to go out to a dive bar that we often go to in the neighborhood and eat there. That usually means drinking and closing the place down. I was not really up for it but I wanted to avoid a fight so we went.* [softly] *Should've stuck to my guns.*

Therapist: *Hmmm, maybe. But it sounds like, at the time, you were choosing to go to avoid trouble?* [Heidi considers and nods.] *So you head over to the bar. What happened next?*

Heidi: *Not much – we order food and beers. I started feeling worse and worse and barely touched either. Joe made up for it and it was looking like he was making it an all-nighter. A bunch of his buddies showed up and he went over to the bar to drink with them. I realized I was running a fever by then and told him I was headed home. He was clearly pissed off and looked like he was itchin' to fight, but his friends were watching. I took the opportunity to get out of there.*

Therapist: *What happened next?*

Heidi: *I got home, took some aspirin for my fever, and crawled into bed and passed out. Next thing I knew, I was being dragged out of bed and the rest is history. I had never even locked the door. How stupid could I be?*

Therapist: *Did Joe have a key?* [Heidi does not look up but nods.] *Probably doesn't matter too much if you had locked the door then, right?* [Therapist inserts this gentle Socratic question to challenge the notion that this happened because Heidi was stupid, but wants Heidi to continue with her story. Heidi had clearly stopped at the most difficult part of the memory. The therapist wants her to be able to push through avoidance, experience any natural affect, discover any additional

assimilated Stuck Points, and gather information that will be helpful in challenging these Stuck Points.] *Do you remember much about being dragged out of bed?*

Heidi (continues to avoid eye contact and speaks slowly and quietly): *Yes. I was dead asleep at the time and woke up by being dragged by my hair in one of his hands and the other around my neck. My back was against him and my arms were pinned down. I remember kicking and twisting but not being able to loosen his grip. He dragged me the full length of the hall screaming at me. When we got to the top of the stairs, he flung me down. I remember the sensation of flying and then crashing down.*

Therapist: *That's awful. Were you badly hurt?*

Heidi (visibly crying and not making eye contact at all): *I didn't know it at the time. I actually remember thinking, "Now's my chance. I can escape out the front door." But when I tried to stand, I realized my leg was fractured. And then he was on me again. I blew my chance.*

Over the course of the next few minutes, Heidi describes the rest of her assault during which Joe repeatedly beat and choked her for nearly 30 min during which she lost consciousness at least twice. The second time, she played dead and he finally stepped away from her. She waited about 20 min and was able to drag herself to her neighbor's house. Her neighbor called the police.

This case example shows how a therapist can help a client engage with the trauma memory in a detailed manner. When avoidance is apparent, the therapist can help the client stay trauma-focused. The therapist provides ample opportunity for the client to feel the natural feelings that recalling the trauma evokes. At the same time, the therapist is able to discover new assimilated Stuck Points and even begin the process of gentle challenging. Finally, the therapist develops a complete picture of the details of the trauma. These can be very helpful in crafting Socratic questions to challenge the client's Stuck Points. In Heidi's case, evidence against the idea that the assault happened because she was weak or didn't "handle it" included the fact that she was woken from sleep in her own bed, was feverish, had her leg broken in the assault, and was choked to the point of loss of consciousness twice (all preventing her from fighting back). Despite all of this, she had the wherewithal to trick her husband and play dead in order to escape. She then had the strength to drag herself badly injured including a broken leg and crushed larynx to safety. In fact, there was little in her story to suggest that she was weak at all. Quite the opposite, she came to recognize that she showed enormous strength and fortitude despite great odds.

10.3 Special Challenges

We are frequently asked how long a therapist should work with a client prior to starting CPT. The answer changes depending on a number of variables. If this is a new client, CPT can start right away after an initial assessment definitively determining a diagnosis of PTSD. If the therapist has been working with the client for a long time using more supportive or unstructured therapy, it may be necessary to discuss how CPT will look different in terms of the structure of the session and the homework expectations than what was previously being done in therapy. We often

find that delaying the start of trauma treatment causes the client's avoidance to increase and reduces the likelihood that he/she will stay committed to the protocol. In fact, we commonly see that the therapist's avoidance or belief that the client "cannot tolerate" CPT is more often the reason for the delay of treatment than the client's desire to hold off.

Because the efficacy of CPT was tested with women who described complex trauma histories as well as a variety of comorbid psychological disorders, most clients can complete the treatment protocol as designed. For example, in clinical and research settings, we have implemented the protocol with individuals who were recently traumatized (days) and those who were 70 years posttrauma. In addition, the protocol has been utilized with those who are sub-threshold for PTSD diagnosis as well as those individuals who meet the full criteria for PTSD. Finally, we have successfully implemented the full protocol with individuals who have been additionally diagnosed with many Axis I and all Axis II disorders and comorbid conditions (Galovski et al. 2020a). Several examples include sleep impairment (e.g., Galovski et al. 2016a, b), traumatic brain injury (Chard et al. 2011), repeated head injuries and depression (Galovski et al. 2020b), alcohol use disorders (Kaysen et al. 2014; Pearson et al. 2019a, b), and personality disorders (Walter et al. 2012; Galovski et al. 2016a, b). Most typically, in our research trials, individuals can have a diagnosis of bipolar disorder or schizophrenia; however, we first stabilize any manic or psychotic symptoms prior to commencing the trauma-focused work. A recent non-randomized trial of CPT with individuals with a comorbid severe mental illness diagnosis demonstrated that it is possible to reduce PTSD symptoms in the context of these co-occurring disorders (Feingold et al. 2018). To our knowledge, CPT has not been tested with individuals diagnosed with dementia.

There are a few situations in which delaying the start of trauma-focused work, such as CPT, may be warranted (such as stabilizing a client physically or psychologically). Ensuring that the individual is not a danger to self or others and in personal danger due to a current abusive relationship is an important consideration before beginning any kind of therapy. If danger is a concern, then safety planning needs to be prioritized before CPT is considered. Conversely, we have successfully treated individuals who are likely to face trauma in their near future with CPT, e.g., military service members, police, and firefighters. The likelihood of experiencing trauma in the future is a universal risk, so the possibility of future violence or trauma exposure should not be a reason to delay trauma treatment but should be an area where additional Stuck Points can be identified and challenged. Additional areas of physical safety that may delay treatment include those individuals with an eating disorder (see Trim et al. 2017 for a review of treating comorbid PTSD and eating disorders with CPT) that places them at a severe health risk or those engaging in potentially lethal self-injurious behaviors. In both of these cases, attempts to stabilize the client should be made prior to starting CPT.

Another factor that may delay the start of CPT treatment is the client's psychological functioning. For example, if depression is so severe that the client is rarely attending sessions, if dissociation is so significant that he/she cannot sit through most of a therapy hour, or if severe panic attacks are preventing discussion of the

trauma even in remote detail, then other therapeutic interventions may need to precede CPT (e.g., coping skill building, panic control treatment (see Chap. 18 and Part IV "comorbidities"). With respect to concurrent substance use disorders, we have commonly implemented the CPT protocol with those who are abusing substances with great success, but typically not in an outpatient setting if they are substance dependent and requiring detoxification (Kaysen et al. 2014). However, once someone has stabilized after detoxification, the individual is typically able to engage in CPT. Recent clinical trials have demonstrated improvements in PTSD and substance use outcomes among PTSD/SUD patient populations (Haller et al. 2016; Pearson et al. 2019a, b). These results suggest that treating PTSD in the context of SUD is safe and effective. Both research studies and clinical effectiveness trials have found that symptoms of depression, anxiety, substance use, anger, and guilt all decrease after CPT and individuals maintain these gains at treatment follow-up (see Galovski et al. 2020a for a review of the relevant studies). If an individual has an unmedicated psychotic disorder or unmedicated bipolar disorder, it will likely be necessary to stabilize the individual on a medication regimen prior to starting CPT. Finally, an emerging literature also demonstrates the success of treating PTSD with CPT in the context of co-occurring medical complexities including elevated health-related concerns (Galovski et al. 2009), traumatic brain injury (Chard et al. 2011; Walter et al. 2012; Galovski et al. 2020b), sleep impairment (Galovski et al. 2016a, b; Pruiksma et al. 2016), and chronic pain (Galovski and Resick 2008).

Several studies have shown that individuals with comorbid personality disorders (including borderline personality disorder; BPD) do very well in CPT. Although their initial PTSD score may start higher than individuals without a comorbid personality disorder, participants with BPD features (Clarke et al. 2008) and with full BPD (Walter et al. 2012; Galovski et al. 2016a, b; Holder et al. 2017) show equivalent gains in therapy as compared to those without personality disorders. The challenge for many therapists working with clients who have a personality disorder and PTSD is keeping the treatment on track with the protocol and not getting derailed by non-trauma-related topics and issues that are salient to the client, but may detract from the PTSD recovery process. We have found that clients often have developed maladaptive cognitions and coping strategies to manage their reactions to the trauma. These beliefs and behavioral patterns most likely served a functional purpose at some point in the person's life and eventually became dogmatic schemas about the world. The client then began to view all experiences through these schemas, ignoring or distorting information that challenges these beliefs. Our goal is to remain trauma-focused and provide the client with additional skills for specifically challenging trauma-related cognitions in an effort to reduce posttraumatic distress.

Modifications of the protocol are most often not recommended. That being said, our studies have shown that specific modifications may occasionally be necessary to achieve optimal outcomes (Galovski et al. 2012; Resick et al. 2008b; Galovski et al. 2016a, b; Angelakis et al. 2020; Jak et al. 2019; Kozel et al. 2018; Pearson et al. 2019a, b). For example, we have used the protocol with individuals who have minimal formal education (fourth grade) and those with an IQ around 75. However, in several of these cases, we have had to simplify the protocol. In addition, with the

number of returning veterans with a history of traumatic brain injury (TBI), many clients with PTSD are also coping with post concussive symptoms that resulted from their injury. Clinical data supports the use of CPT or CPT-C in their current formats with a majority of these clients, but if the client is struggling to comprehend the purpose of the assignment, the worksheets have been simplified for different levels of understanding (Resick et al. 2017a; Chard et al. 2011). For example, we have created versions of the worksheets that can be used throughout the treatment instead of moving on to the more advanced sheet. Bass et al. (2013) completed a randomized controlled trial of group CPT-C (cognitive-only version without accounts) in the Democratic Republic of Congo, in which the clients were illiterate and had no paper and the therapist had only a few years of education beyond elementary school. The worksheets and concepts had to be simplified so that the clients could memorize them.

In summary, therapists should not assume that CPT cannot be implemented with clients who have extensive trauma histories or be daunted by comorbid disorders accompanying PTSD. The decision the clinician must make in collaboration with the client is whether the comorbid disorder is so severe that it will preclude the client's participation in PTSD treatment. For the most part, however, the treatment of PTSD will improve the comorbid symptoms and may even eliminate the necessity of further treatment for those symptoms. Thus, decisions on when to start CPT, and with whom, should be made on a case-by-case basis in collaboration with the client.

10.4 Empirical Support

There is a large body of literature supporting the efficacy and effectiveness of CPT in diverse populations. The first randomized controlled clinical trial (RCT) compared CPT, prolonged exposure (PE), and a wait list (WL) control group in a sample of 171 female rape survivors (Resick et al. 2002). Results showed that both the CPT and PE groups demonstrated significant reductions in PTSD and depressive symptoms between pretreatment and posttreatment compared to the WL condition. There were very few differences between the two active treatments with the exception of significantly more improvement on guilt (Resick et al. 2002), health-related concerns (Galovski et al. 2009), hopelessness (Gallagher and Resick 2012), and suicidal ideation (Gradus et al. 2013) reported by the participants who received CPT. These improvements were sustained at the 3-month and 9-month follow-up points. A subsequent long-term follow-up assessment of these participants (Resick et al. 2012a, b) revealed no significant change in PTSD symptoms 5–10 years following original study participation, indicating that treatment gains were maintained over an extended period of time.

In an effort to more fully understand the possible individual contributions of the theorized active ingredients in the full CPT protocol, a dismantling study of CPT (Resick et al. 2008a) next compared the full protocol to a cognitive-only version (CPT-C) that does not include the written account and a written account-only (WA) condition. One hundred and fifty adult women with histories of physical and/or

sexual assault were randomized into one of the three conditions. Participants in all three conditions showed significant improvements in PTSD and depressive symptoms during treatment and at the 6-month follow-up. Following these two initial RCTs conducted with female survivors of interpersonal violence, additional studies within the civilian population were conducted with results continuing to demonstrate the efficacy of CPT when compared to memory specificity training (MeST; Maxwell et al. 2016) and written exposure therapy (WET; Sloan et al. 2018).

CPT also is shown to be effective in veteran populations. Monson et al. (2006) conducted the first RCT with a veteran sample and found that veterans receiving CPT demonstrated significant improvements in PTSD symptoms compared to treatment as usual through 1-month follow-up. Improvements in co-occurring symptoms including depression, anxiety, affect functioning, guilt distress, and social adjustment also were found. Forbes et al. (2012) examined the effectiveness of CPT compared to treatment as usual in three veterans' treatment clinics across Australia. Results showed significantly greater improvements in PTSD and secondary outcomes including anxiety and depression for the CPT group. In the first RCT examining CPT in a sample of veterans with military sexual trauma, CPT was compared to present-centered therapy (PCT), an active control group (Suris et al. 2013). Results revealed that both the treatment groups showed significant improvement through 6-month follow-up in PTSD and depression, although veterans who received CPT showed significantly greater reductions in self-reported PTSD symptom severity at the posttreatment assessment compared to those who received PCT. No differences were observed between the two treatments on clinician-measured PTSD as assessed by the Clinician-Administered PTSD Scale (CAPS). Morland et al. (2014) conducted an RCT in a sample of 125 male Vietnam era combat veterans in Hawaii comparing group CPT delivered via telehealth technology to in-person treatment. Results found that both groups had significant reductions in PTSD symptoms following treatment and maintained through 6-month follow-up. There were no significant between-group differences in clinical or process outcome variables. This same group of investigators then tested the telehealth method of service delivery within female veterans, reservists, National Guard and civilians (Morland et al. 2015), and Maieritsch et al. (2016) tested CPT via telehealth in post 9/11 veterans. These two later studies also demonstrated the effectiveness of this type of service delivery. These findings support the feasibility and effectiveness of using telehealth technology to deliver CPT, which would greatly extend the reach of CPT and improve access to care for those with geographic limitations. During the global pandemic of 2020, knowledge gained from these research trials was critical in continuing mental health delivery for both veterans and civilians nationwide (Moring et al. 2020).

CPT has also demonstrated effectiveness in active duty studies. The first RCT to test CPT in a US active duty sample compared CPT to present-centered therapy (PCT) in a sample of primarily male service members with PTSD secondary to combat trauma (Resick et al. 2015). PTSD and depression both significantly reduced in both the therapy conditions. A second study in active duty service members

compared CPT delivered individually to group CPT. Differences emerged such that participants who received CPT in an individual format showed significantly more improvement in PTSD than did those who received treatment in group format (Resick et al. 2017b), although service members in both conditions demonstrated significant symptom reductions.

Modifications and adaptations of the original CPT protocol have served to advance the overall effectiveness of the intervention. Chard (2005) developed an adaptation of CPT (CPT-SA) for survivors of sexual assault consisting of 17 weeks of group and individual therapy specifically designed to address issues salient to abuse survivors, such as attachment, communication, sexual intimacy, and social adjustment. In an RCT of this treatment, 71 women were randomized to CPT or a minimal attention (MA) wait list control group. The CPT group showed significant improvements from pretreatment to posttreatment compared to the MA group on PTSD, depression, and dissociation. PTSD symptomatology continued to improve from posttreatment to the 3-month follow-up and remained stable through 1-year follow-up. Galovski and colleagues flexibly administered a variable-length protocol of CPT (modified cognitive processing therapy, MCPT) in which the number of sessions is determined by client progress toward a predetermined good end-state functioning (Galovski et al. 2012). Results of an RCT in a sample of 100 male and female interpersonal trauma survivors found that MCPT demonstrated greater improvement on PTSD and depression, as well as secondary outcomes such as guilt, quality of life, and social functioning, compared to a minimal contact control group. Moreover, 58% of participants receiving MCPT reached good end-state in fewer than 12 sessions, while only 8% reached session 12 and 34% required 12–18 sessions. Gains were maintained at the 3-month follow-up. These results suggest that the CPT protocol may be shortened for early responders, while adding additional sessions may improve outcomes for those previously deemed nonresponders after the standard 12-session protocol. Numerous augmentation trials also have been conducted to target commonly co-occurring conditions that may be impeding holistic outcomes such as sleep impairment (Galovski et al. 2016a, b), depression (Angelakis et al. 2020; Kozel et al. 2018) and cognitive symptoms associated with TBI (Jak et al. 2019).

CPT also has been adapted to meet the needs of traumatized populations outside of the United States, international populations. Bass et al. (2013) conducted a controlled trial with female sexual assault survivors in the Democratic Republic of Congo. Sixteen villages were randomly assigned to provide CPT-C (157 women) or individual support (248 women). CPT-C was delivered in a group format following an initial individual session. Results showed that participants in the CPT-C groups had significantly greater improvements in PTSD, depression, and anxiety symptoms than those in the individual support group, with effects maintained at 6-month follow-up. In a sample of civilian survivors of violence in Southern Iraq, Weiss et al. (2015) found that CPT was more effective when compared to a waitlist control condition. Finally, in a study conducted in Germany with female civilians, Butollo et al. (2016) compared CPT and dialogical exposure therapy in a sample of civilians exposed to different types of trauma and found both therapies to be equally

effective. These findings demonstrate that CPT can be effectively implemented in diverse and challenging settings.

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