



State of the Science: Written Exposure Therapy for the Treatment of Posttraumatic Stress Disorder

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Although there are effective psychotherapies available for posttraumatic stress disorder (PTSD), brief treatments for PTSD are needed to expand the reach of treatment. Written exposure therapy (WET) is a brief treatment that has the potential to fill an important need in PTSD treatment and has a rapidly expanding evidence base to support its use. In this paper we provide information on how WET was developed, and we present proposed underlying mechanisms of the treatment and evidence supporting the underlying mechanism. The current evidence supporting WET for the treatment of PTSD is reviewed. The evidence indicates that WET is an efficacious and effective treatment approach for PTSD and is noninferior to more time-intensive evidence-based treatments for PTSD. The paper concludes with suggestions for expanding the evidence base of WET that is necessary for it to be considered a first-line treatment approach across clinical practice guidelines.

Keywords: PTSD; written exposure therapy; exposure treatment; randomized controlled trial

EPIDEMIOLOGICAL STUDIES SHOW that the vast majority of the population have been exposed to at least one traumatic stressor (Goldstein et al., 2016), 4%–8% of the general population will develop posttraumatic stress disorder (PTSD; e.g., Kessler

et al., 2005), and that the prevalence is nearly double among those who have served in the military (i.e., Fulton et al., 2015). Fortunately, there are several evidence-based psychotherapies for PTSD available (American Psychological Association, 2017; U.S. Department of Veterans Affairs/Department of Defense [VA/DoD], 2023), which includes cognitive processing therapy (CPT; for a review see Resick et al., 2024) and prolonged exposure therapy (PE; Foa et al., 2019). Notably, although these interventions can be very effective, many individuals who receive them end therapy prematurely (e.g., Imel et al., 2013; Steenkamp et al., 2015). Further, there are barriers to implementing these treatments (e.g., Finley et al., 2015), especially in settings where only brief interventions can be used (e.g., primary care clinics, acute inpatient units). A brief, effective psychotherapy would address some of the implementation and access to care limitations of existing treatments. Written exposure therapy (WET; Sloan & Marx, 2019), a brief trauma-focused psychotherapy, has the potential to address these issues. In this state of the science review (Comer, this issue), we briefly describe studies that led to the development of WET, describe the WET protocol, review the research supporting the use of WET for the treatment of PTSD, and offer future directions for additional investigations with WET.

Description of the Treatment

Our work on the development of WET started approximately 20 years ago with a study (Sloan & Marx, 2004) of the expressive writing (EW) procedure (see Pennebaker, 1997; Pennebaker & Beall, 1986). EW involves writing about the most stressful or traumatic experience of one's life for 20 minutes on 3 consecutive days. During each

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writing session, the person shares the details as well as their deepest thoughts and feelings about the selected experience. Over the course of hundreds of studies, EW has been found consistently to result in physical and mental health benefits (see Pennebaker & Chung, 2011, for a review). Upon first glance, EW bears some similarities to the imaginal exposure procedures that are used frequently to treat PTSD. Thus, we sought to investigate whether EW reduced PTSD symptoms among individuals exposed to a traumatic event, as defined by the PTSD diagnostic criteria (i.e., Criterion A; American Psychiatric Association, 2013), and reported at least moderately severe PTSD symptoms. Much to our surprise, study participants randomly assigned to the EW condition reported a significant reduction in their PTSD symptoms relative to participants randomly assigned to a control writing condition in which they were asked to write about daily events without any emotional expression (Sloan & Marx, 2004).

This initial study was followed by a series of other studies in which we examined the necessary and sufficient components of EW to result in a significant reduction in PTSD symptoms. This work revealed that it is critical for individuals to write about the same traumatic event during each session (Sloan et al., 2005), incorporating the emotions felt at the time of exposure to the traumatic event is critical for a good outcome (Sloan et al., 2007), and that three, 20-minute writing sessions was insufficient for a significant reduction in PTSD symptoms for individuals who met diagnostic criteria for PTSD (Sloan et al., 2011). With the knowledge gained from our systematic studies, we developed the protocol that we called “written exposure therapy.”

WET consists of five therapy sessions, during which clients provide details about a specific traumatic event, their thoughts and feelings about the traumatic event, and the impact of that traumatic event on their lives. As it is common for clients with PTSD to have experienced multiple traumatic events, they are asked to focus on the event that is most related to their symptoms and that causes them the most distress. The first session is 60 minutes in length. During this session, the therapist provides the client with some psychoeducation about PTSD (e.g., description of the symptoms of PTSD and how these symptoms are maintained) and provides a rationale for the treatment. Following this, the therapist reads the first set of instructions for writing about the traumatic experience and then the client writes for 30 minutes. After 30 minutes has elapsed, the therapist checks in

with the client to hear about their experience of writing about their trauma. The remaining four sessions are each approximately 45 minutes in length. During these sessions, the therapist starts by checking in with the client about how they have been doing since the last session, provides verbal feedback about the narrative they completed in the last session, reads the next set of writing instructions, and has the client write for 30 minutes. At the end of the 30 minutes, the therapist asks the client about their experience writing during that session.

In the first two writing sessions, the client is asked to focus on providing details of the traumatic event as well as the cognitions and emotions that occurred during and immediately after the event. In the third and fourth sessions, the client is asked to include in their narratives how the experience has impacted their life. In the fifth, and last, session, the client writes about what they have learned by confronting their trauma memory and how these lessons will be incorporated into their life moving forward. In contrast to other available evidence-based psychotherapies, WET does not require the client to complete specific between-session assignments. Clients are simply encouraged to not avoid any trauma-related memories, thoughts, and feelings that they experience between sessions. The therapist checks in with the client at the beginning of each session to see whether they were able to allow themselves to have thoughts and feelings about their trauma memory since the prior session.

OVERVIEW OF CONCEPTIONAL AND THEORETICAL UNDERPINNINGS OF WET

It has been previously hypothesized that EW improves both physical and mental health through mechanisms of action such as emotional disinhibition (i.e., expression of previously suppressed or inhibited emotions) and cognitive adaptation (i.e., writing about a stressful event in a structured manner allows an individual to provide organization and cohesion to the memory, which in turn promotes insight and cognitive assimilation of that memory; Pennebaker, 1997). It is possible that these same mechanisms are operating within WET.

As previously noted, the WET procedure bears some similarities to imaginal exposure techniques during which clients repeatedly confront a trauma memory until it is sufficiently less distressing. Consistent with a learning model of PTSD (e.g., Rothbaum & Davis, 2003), the prevailing assumption has been that repeated confrontation of a trauma memory resulted in the extinction of a conditioned response to these stimuli, which then

results in symptom reduction. It has been assumed that clients improve if self-reported distress and physiological reactivity decline during exposure to trauma reminders and if exposure to the same reminders evoke less distress from one session to the next. The emotional processing theory (Foa & Kozak, 1986) provides a somewhat different perspective, positing that effective treatment modifies a person's pathological cognitions about feared stimuli, behavioral responses to these stimuli, and the meanings of the associations between stimuli and responses by first activating the fear structure and then providing information incompatible with the elements of the fear structure. Evidence from some of our work with WET has supported both the learning and emotional processing models (e.g., Sloan & Marx, 2004; Sloan et al., 2007; Wisco et al., 2016). Interestingly, work has also shown that WET is associated with cognitive adaptations and that these changes are associated with better treatment outcomes (e.g., Alpert et al., 2023a), despite the fact that WET does not explicitly seek to modify dysfunctional cognitions.

More recent research has led to an alternative explanation for how exposure, including in the context of PTSD treatment, works. Specifically, some have proposed that exposure reduces PTSD symptoms through a process known as inhibitory learning (Craske et al., 2014). Instead of extinguishing a conditioned fear response or modifying a cognitive fear structure, during inhibitory learning an individual learns new responses that compete with and prevent old responses. In the context of imaginal exposure to a trauma memory, the individual learns that they can tolerate the strong negative affect that might arise when confronted by such reminders. This learned tolerance competes with and inhibits the old responses to trauma memories (i.e., fear and avoidance) and subsequently inoculates the client against future relapse (i.e., reemergence of clinically significant PTSD symptoms; Bouton, 2004; Craske et al., 2014). Imaginal exposure is a core component of WET, as clients are asked to repeatedly confront their traumatic memory by providing details about the event through a written narrative, as well as describing the thoughts and feelings they experienced during the event.

It is important to note that, for numerous reasons, it is challenging to identify the exact mechanism through which WET and other evidence-based PTSD treatments work (see Kazdin, 2007, for a discussion). Findings from a more recent study provide a perfect illustration of this challenge: Lee et al. (2021) showed that fear extinction

and PTSD symptom reduction may not occur sequentially as would be expected if changes in conditioned fear responses were the mechanism, but instead occur simultaneously during WET (Lee et al., 2021). As Kazdin points out, causes and mediators must temporally precede the effects and outcomes. Lee et al.'s findings underscore the importance of using the correct research design (with proper experimental controls) and data-analytic methods when investigating underlying mechanisms of action for PTSD psychotherapies. Further complicating attempts to isolate mechanisms of action for trauma-focused PTSD treatments is that indicators of proposed mechanisms (e.g., changes in responding to trauma-related stimuli, changes in trauma-related cognitions, reduction in avoidance behaviors) overlap both conceptually and methodologically with indicators that the treatment is doing what it is supposed to do—namely, reducing the symptoms of PTSD (see Alpert et al., 2023b, for a review). Taken together, identifying underlying mechanisms of PTSD is, in the best scenario, challenging. Nevertheless, we have continued to investigate possible mechanisms of WET to better understand why the treatment is effective.

Summary of Research Conducted to Date and Supporting Evidence

After completing work that led to the development of the WET protocol, the first efficacy test of WET was conducted approximately 10 years ago (Sloan et al., 2012). Since that time, there have been multiple published studies examining the efficacy and effectiveness of WET as a treatment for PTSD with a variety of samples (e.g., car accident survivors, military veterans, childhood sexual assault survivors, adolescent survivors of a terrorist attack) in different settings (e.g., outpatient clinic, inpatient psychiatry unit, substance use residential treatment program) and using different formats (e.g., group based; telehealth delivery, massed format). Table 1 presents the list of 17 WET studies examining treatment outcome published to date (see DeJesus et al., 2024). Notably, most of these studies have been published in the last few years, underscoring the rapidly growing interest in WET as well as rapidly expanding research support. Of the 17 studies published thus far, 7 are randomized controlled trials (RCTs), and 4 have directly compared WET with an evidence-based, yet more time-intensive, trauma-focused treatment. Specifically, 2 studies found WET to be non-inferior to CPT (Sloan et al., 2018, 2022), and 1 study found WET to be noninferior to PE (Sloan et al., 2023). Another study (Ahmadi et al.,

Table 1
Characteristics of Studies Examining WET as a Treatment for PTSD

Study first author (year)	Sample	Total N	Country	White (%)	Tx format	Study design	Comparison condition	PTSD measure
Ahmadi, 2022	Adolescents	120	Afghanistan	0	Group	RCT	TF-CBT; WL	CRIES
Andrews, 2022	Spanish-speaking adults	20	U.S.	0	Individual	Open	–	PCL
Ellis, 2023	Undergraduate students	33	U.S.	63	Individual	RCT	EW	PCL-5
LoSavio, 2023	Veterans	277	U.S.	52	Individual	Open	–	PCL-5
Morissette, 2023	Adults	28	U.S.	68	Individual	Open	–	PCL-5
Nillni, 2023	Adults	18	U.S.	61	Individual	Open	–	PCL-5
Park, 2021	Adults	34	South Korea	0	Individual	Open	–	CAPS-5
Schacht, 2023	Adults	49	U.S.	40	Individual	Open	–	PCL-5
Schumacher, 2023	Adults	3	U.S.	100	Group	Open	–	PCL-5
Sloan, 2012	Adults	46	U.S.	37	Individual	RCT	WL	CAPS
Sloan, 2013	Veterans	7	U.S.	100	Individual	Open	–	CAPS-5
Sloan, 2018	Adults	126	U.S.	55	Individual	RCT	CPT+A	CAPS-5
Sloan, 2022	Military	169	U.S.	35	Individual	RCT	CPT	CAPS-5
Sloan, 2023	Veterans	178	U.S.	63	Individual	RCT	PE	CAPS-5
Tyler, 2022	Military	4	U.S.	25	Individual	Open	–	PCL-5
Yun, 2022	Adolescents	4	South Korea	0	Individual	Open	–	CAPS-5
Zolfa, 2023	Adults	46	Iran	0	Individual	RCT	WL	PCL-5

Note. WET = written exposure therapy; PTSD = posttraumatic stress disorder; tx = treatment; RCT = randomized controlled trial; TF-CBT = trauma-focused cognitive-behavioral therapy; WL = wait-list; CRIES = Child Revised Impact of Events Scale; U.S. = United States; PCL = PTSD Checklist; EW = expressive writing; PCL-5 = PTSD Checklist for DSM-5; CAPS-5 = Clinician-Administered PTSD Scale for DSM-5; CAPS = Clinician-Administered PTSD Scale; CPT+A = cognitive processing therapy + accounts; CPT = cognitive processing therapy; PE = prolonged exposure.

2022) found significant reductions in PTSD symptoms for adolescent girls randomized to either WET or to trauma-focused cognitive-behavioral therapy (Cohen et al., 2012), with no differences observed between the two treatments. The only other RCT that included an active treatment comparison condition found greater reductions in PTSD symptom severity for adults randomized to WET relative to those randomized to an expressive writing condition that did not include psychoeducation of PTSD and treatment rationale in the first session. The expressive writing condition did not provide feedback to participants after each writing session as is done with WET (Ellis et al., 2023).

EFFECT SIZE DATA

Table 2 provides within-condition effect sizes for the studies published to date. Within-condition effect sizes are medium for two studies and large for the remaining studies (range $d = 0.51$ – 5.02). Between-condition effect sizes for the seven RCTs are displayed in Table 3. Studies that included a wait-list comparison condition observed large between-condition effect sizes (range $d = 1.05$ – 4.11), whereas effect sizes were small for the studies that compared WET with a time-intensive trauma-focused psychotherapy (range $d = 0.17$ – 0.31). Overall, these findings indicate that WET results in substantial PTSD symptom reductions, and the reported effect sizes are consistent with other more time-intensive evidence-based PTSD psychotherapies.

Table 2
Within-Condition Effect Sizes for PTSD Symptom Severity

Study first author (year)	WET (N)	WET ES (BL posttx)
Ahmadi, 2022	40	1.19
Andrews, 2022	16	1.28
Ellis, 2023	18	1.26
LoSavio, 2023	277	0.84
Morissette, 2023	22	1.47
Nillni, 2023	18	1.24
Park, 2021	25	1.75
Schacht, 2023	49	0.91
Schumacher, 2023	3	–
Sloan, 2012	22	3.18
Sloan, 2013	7	–
Sloan, 2018	63	0.51
Sloan, 2022	85	0.48
Sloan, 2023	88	0.70
Tyler, 2022	4	–
Yun, 2022	4	–
Zolfa, 2023	23	5.02

Note. PTSD = posttraumatic stress disorder; WET = written exposure therapy; ES = effect size; BL = baseline; tx = treatment. Effect sizes are reported using Cohen's d (Cohen, 1988) and not calculated for studies with less than 10 participants.

TREATMENT DROPOUT DATA

Treatment dropout is another important variable to consider when evaluating the state of the science of a given treatment. Table 4 presents participant treatment dropout percentages for WET studies. Dropout rates for WET are low, and significantly less than for CPT and PE. Specifically, Sloan and colleagues (2018) reported that, in a sample of civilians with PTSD, 6% of participants assigned to receive WET dropped out, whereas 39% of participants randomized to CPT dropped out of treatment. In a follow-up study, Sloan et al. (2022) found that, in a sample of military service members with PTSD, 24% of participants assigned to receive WET dropped out of treatment, whereas almost twice as many (45%) participants assigned to receive CPT dropped out of treatment. In a recently published study comparing WET and PE in a sample of military veterans with PTSD (Sloan et al., 2023), 13% of participants assigned to WET dropped out, whereas 36% of participants assigned to PE dropped out of treatment. The difference in dropout is not merely the result of WET being a shorter treatment, as the dropout rate among individuals who received WET continued to be significantly lower when comparing the number of participants who dropped out within the first five sessions of CPT (Sloan et al., 2018) and PE (Sloan et al., 2023). The better retention in WET compared with other trauma-focused psychotherapies may be related to the brief treatment format (i.e., easier to remain in treatment when a client knows it will be ending soon), the lack of between-session assignments, or the format of conducting imaginal exposure through writing rather than recounting the traumatic event aloud to the therapist.

PTSD ASSESSMENT

Ten of the 17 studies have required a diagnosis of PTSD for study inclusion (LoSavio et al., 2023; Park et al., 2021; Schumacher et al., 2023; Sloan et al., 2012, 2013, 2018, 2022, 2023; Tyler et al., 2022; Yun & Lee, 2022), whereas the other studies required a minimum score on a PTSD self-report measure. In terms of outcome assessment, seven studies used a clinician-administered measure to assess PTSD symptom severity outcome, while the remaining studies used a self-report measure (see Table 1). There are no notable differences in outcome findings based on the assessment instrument used.

EFFICACY VERSUS EFFECTIVENESS

All but four of the studies listed in Table 1 examined the efficacy of WET. Of the four effectiveness

Table 3
Between-Condition Effect Sizes for PTSD Symptom Severity

Study first author (year)	Comparison condition	ES (BL posttx)
Ahmadi, 2022	TF-CBT; WL	0.31; 1.05
Ellis, 2023	EW	0.05
Sloan, 2012	WL	3.58
Sloan, 2018	CPT+A	0.17
Sloan, 2022	CPT	0.18
Sloan, 2023	PE	0.23
Zolfa, 2023	WL	4.11

Note. PTSD = posttraumatic stress disorder; ES = effect size; BL = baseline; tx = treatment; TF-CBT = trauma-focused cognitive-behavioral therapy; WL = wait-list; EW = expressive writing; CPT+A = cognitive processing therapy + account; CPT = cognitive processing therapy; PE = prolonged exposure. Effect sizes are reported using Cohen's *d* (Cohen, 1988).

Table 4
Dropout Rates for WET

Study first author (year)	% dropout
Ahmadi, 2022	15
Andrews, 2022	25
Ellis, 2023	17
LoSavio, 2023	25
Morissette, 2023	32
Nillni, 2023	44
Park, 2021	8
Schacht, 2023	39
Schumacher, 2023	67
Sloan, 2012	9
Sloan, 2013	14
Sloan, 2018	6
Sloan, 2022	24
Sloan, 2023	13
Tyler, 2022	0
Yun, 2022	0
Zolfa, 2023	0

Note. WET = written exposure therapy.

studies, LoSavio et al. (2023) used a hybrid implementation effectiveness design to examine WET with veterans presenting for PTSD treatment services within the VA/DoD. Morissette and colleagues (2023) conducted a hybrid implementation effectiveness study in a college counseling center and Andrews and colleagues (2022) used a hybrid implementation effectiveness study to examine WET delivered in a community center to Latinx immigrants. Sloan et al. (2023) examined the effectiveness of WET with veterans presenting for PTSD treatment services within the VA/DoD.

TRAUMA SAMPLES AND FORMATS

Although WET is a relatively new treatment, as indicated in Table 1, the studies conducted to date have used WET with a variety of samples and using different formats. Two studies have examined the treatment with an adolescent sample

and one study examined WET with pregnant women (Nillni et al., 2023); studies have included participants with both chronic (e.g., combat, domestic abuse, childhood sexual abuse) and discrete (e.g., car accident) traumas. Several studies have delivered WET using a group format, and three studies used a massed format in which sessions were delivered multiple times within 1 week (Schacht et al., 2023; Schumacher et al., 2023; Tyler et al., 2022). The past several years have seen a substantial increase in the preference and use of telehealth services and three studies have demonstrated that WET can be successfully delivered remotely (Ellis et al., 2023; LoSavio et al., 2023, Sloan et al., 2023). Moreover, LoSavio and colleagues reported that PTSD treatment outcome does not differ when WET is delivered remotely versus in person. Taken together, these studies indicate that beneficial treatment outcome findings continue to be observed when flexing the original WET protocol (Sloan & Marx, 2019). This is an important finding as treatment protocols are often flexed when they are moved into clinical practice (Wiltsey Stirman et al., 2017).

COMMUNITIES OF COLOR AND UNDERSERVED COMMUNITIES

Given the prevalence of PTSD among marginalized groups (Hatch & Dohrenwend, 2007), it is important to consider the state of the evidence for WET for marginalized groups, including communities of color. Five of the 17 studies listed in Table 1 used a version of the WET manual that was translated for a non-English-speaking sample (Ahmadi et al., 2022; Andrews et al., 2022; Park et al., 2021; Yun & Lee, 2022; Zolfa et al., 2023). Of note, other than the translation from English to another language, none of these studies modified the protocol, and all of the studies reported large treatment outcome effect sizes (see Table 2). Regarding communities of color, as displayed in Table 1, most of the studies conducted

to date have included samples that were either predominantly non-White or had an approximately equal proportion of White and non-White participants. Andrews and colleagues specifically investigated whether WET would be acceptable and feasible to deliver to Latinx migrant workers who presented to a local cultural center with findings indicating feasibility in this setting and client acceptability ratings were high. Notably, although therapists in the community were concerned that the low education attainment of clients would be a potential barrier to delivering WET effectively, the clients did not view education attainment as a barrier for engaging in WET (Acosta et al., 2023).

SECONDARY TREATMENT OUTCOMES

PTSD is commonly comorbid with depression, anxiety, substance use disorder, chronic pain, and suicidal thoughts and behaviors (Koenen et al., 2017). Accordingly, it is important to determine the extent to which those with such comorbidities who receive WET also experience significant reductions in these commonly co-occurring conditions. Depression symptom severity has been the most frequently examined secondary outcome in WET studies, with findings consistently demonstrating that WET results in significant reduction of depression symptoms (Andrews et al., 2022; LoSavio et al., 2023; Morissette et al., 2023; Nillni et al., 2023; Park et al., 2021; Stoycos et al., 2023; Thompson-Hollands et al., 2018). Studies have also found that individuals who received WET also report significant decreases in substance uses and suicidal ideation (Nillni et al., 2023; Schacht et al., 2023; Stoycos et al., 2023) and anxiety (Stoycos et al., 2023). In addition, WET is associated with improved functioning/quality of life (LoSavio et al., 2023; Park et al., 2021; Zolfa et al., 2023).

MODERATORS OF WET

Given the brevity of the treatment, one might assume that WET would only work for individuals who have either less severe symptoms, less psychiatric comorbidity, or less trauma exposure. However, this has not been found to be the case (e.g., LoSavio et al., 2023; Marx et al., 2021). Moreover, research conducted to date indicates that neither educational attainment nor estimated intelligence affect WET outcomes (Marx et al., 2021). Overall, many potential moderators of treatment outcome have been examined, yet no significant moderators of WET outcomes have been identified.

PTSD Clinical Practice Guidelines

The clinical practice guidelines (CPGs) for the management of PTSD that receives the most attention are those published by the International Society for Traumatic Stress Studies (ISTSS), the American Psychological Association (APA), and the VA/DoD. The most recent ISTSS CPGs, published in 2020, are based on extensive reviews of the clinical research literature and intended to assist clinicians who provide prevention and treatment interventions for children, adolescents, and adults with or at risk of developing PTSD and complex PTSD. The APA CPGs, published in 2017, offer recommendations that, like the ISTSS guidelines, are based on a systematic review of the scientific evidence but also weigh the benefits and harms of interventions, consider what was known about patient values and preferences at the time of the review, and consider the applicability of the evidence across demographic groups and settings. The VA/DoD CPGs, which were recently updated in 2023, also based on an extensive review of the PTSD clinical trials literature, provide evidence-based recommendations for practitioners who treat active duty service members and veterans with PTSD.

The ISTSS CPGs identify WET as an intervention with emerging evidence. The APA guidelines do not include WET. The VA/DoD CPGs are a substantial revision from the 2017 CPGs and reflect a more rigorous approach for evaluating treatments. In the 2017 VA/DoD PTSD CPGs, trauma-focused psychotherapies, such as CPT and PE, were included as a group. In this approach, WET was included with other narrative therapies in the trauma-focused psychotherapy group and therefore received a strong recommendation for use to treat PTSD. In the 2023 VA/DoD CPGs, the evidence on trauma-focused psychotherapies was reviewed for each treatment individually, instead of as a class. This review, combined with the more rigorous application of recommendation categories (i.e., to be strongly recommended, a treatment needed to have at least three RCTs in which it was tested against an active comparison and in which a clinician-administered instrument was used to assess outcomes) and accumulated new evidence, resulted in changes to the recommendations for some specific treatments. CPT, PE, and eye movement desensitization and reprocessing remained as strongly recommended psychotherapies, while WET was relegated to a weak recommendation because at the time that the evidence was being evaluated, WET only had two RCTs in which it had been compared with an active comparison condition. The committee

indicated that to be included in the recommended category, a treatment had to have at least three RCTs that included an active treatment comparison condition and used a clinician-administered measure to assess PTSD treatment outcome. One month after the revised CPGs were released, the third WET RCT was published that met the stated requirements.

As previously described, the number of studies examining WET as a treatment for PTSD is rapidly growing. Accordingly, if the positive treatment outcome findings continue to be observed, it is highly likely that WET will be consistently included in all PTSD CPGs upon the next revision.

Future Directions

Although WET is a relatively new psychotherapy for PTSD, the evidence supporting its use for PTSD is rapidly accumulating. The research conducted to date has examined the extent to which it works in settings and with trauma-exposed samples for whom access to the other available evidence-based psychotherapies may not be feasible. Prior to 2020, all of the published studies on WET were conducted by the treatment developers. However, the majority of studies published in the past several years have not involved the developers. Nevertheless, the evidence base for WET is still nascent, especially compared with the evidence base for PE and CPT, which were both developed four decades ago. More RCTs that compare WET with an active comparison condition and that monitor PTSD symptom change with a clinician-administered diagnostic interview are also needed. Given the number of RCTs listed in clinical trial registries (e.g., <https://www.clinicaltrials.gov>), it is likely that multiple such RCTs that fit this description will be published in the coming years.

Future research should also be conducted in settings in which only brief interventions can be implemented, such as in primary care clinics, where most individuals with PTSD are seen and treated. When individuals are treated within the primary care environment, typically only six 30-minute sessions are possible. A modified version of WET has been developed for the primary care setting and is currently being examined in two RCTs (Kaysen et al., 2023; Meredith et al., 2024).

Although there are several published effectiveness studies of WET, additional effectiveness studies are needed to further demonstrate that the large effect sizes associated with WET hold up when moved into the real-world setting. Additional implementation studies are also needed to better understand barriers and facilitators of delivering WET in a variety of real-world settings, and some

of this work is underway (e.g., Meredith et al., 2024). Relatedly, it is important to examine how much training is needed for clinicians to effectively deliver WET. Work in this area is starting to emerge (Worley et al., 2023) and we look forward to an increased investigation into what type of training model works best for clinicians with varying degrees of PTSD treatment experience.

There is also a need to further examine whether WET can be adapted for use with children and adolescents and, if so, the manner in which WET needs to be modified to accommodate the cognitive and developmental needs of these groups. In addition, although researchers are already examining how WET can be used with a variety of trauma-exposed people from different ethnic, racial, and cultural backgrounds, additional work is necessary to better understand how the protocol should be adapted to best address the needs of these clients.

Perhaps one of the most exciting aspects of the research with WET is that it has become clear that we can treat PTSD with fewer therapy sessions and with less direct in-session contact between the client and therapist than what was previously assumed. Studies of both CPT (Galovski et al., 2012) and PE (Foa et al., 2022) similarly suggest that fewer therapy sessions are necessary than previously assumed. This growing body of work underscores the need to conduct research aimed at gaining a better understanding of the necessary and sufficient components of effective PTSD psychotherapy.

A search of registered clinical trials (i.e., <https://www.clinicaltrials.gov>) indicates that the evidence base supporting WET will likely double in the next few years. We are thrilled at how many studies have been published by other investigators in the past several years, and we are eager to learn about the findings of ongoing studies being conducted with WET that are examining how well WET works with different samples of trauma survivors and in different settings. It is our hope that this efficient treatment approach helps to broaden the reach of PTSD treatment for those in need of such services.

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