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Research Paper

Intensive trauma-focused therapy with victims of crime

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ABSTRACT

Intensive trauma-focused psychotherapy is a relatively recent clinical practice innovation that has the potential to reduce treatment time, risk, and dropout rate while improving treatment efficiency. We conducted an open trial of trauma-focused intensive therapy featuring progressive counting (PC) and eye movement desensitization and reprocessing (EMDR) for 61 multiply-traumatized treatment-seeking victims of crime. Results showed strong participant retention as well as significant improvement at two weeks and 12 weeks post-treatment, with large to very large effect sizes on all outcomes, including posttraumatic stress and related symptoms, severity of primary presenting problems, quality of life, and overall stability and level of functioning. Outcomes were similar for PC and EMDR. The mean treatment time was 30.73 hours, or a little less than a week, enabling participants to quickly move on with their lives. Intensive trauma-focused psychotherapy may represent an important advance in the delivery of psychotherapy.

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1. Clinical impact statement

We found intensive trauma-focused EMDR or PC to be about as effective as what would have been expected in conventional weekly trauma-focused therapy with the same methods, for victims of crime with a range of significant psychopathology including complex PTSD. Benefits were achieved quickly and with minimal dropout.

2. Intensive trauma-focused therapy with victims of crime

Trauma, broadly defined, is a primary cause or contributor to most presenting problems (Fairbank, Putnam, & Harris, 2007; Van der Kolk, 2007). When psychotherapy focuses only on stabilization and coping skills (e.g. Kabat-Zinn, 2013; Linehan, 2014; Najavits, 2001), the underlying traumatization persists, potentially contributing to ongoing problems and risks (Ecker, Ticic, & Hully, 2012). Thus, treatment benefits are limited, gains may deteriorate, and further episodes of treatment may be needed. Whereas clients may appreciate learning coping skills, it is preferable to help clients to heal from the traumatization so they no longer have to cope with

their symptoms (e.g., Edmond, Sloan, & McCarty, 2004). Therefore, the preferred approach is trauma-focused therapy, which reliably mitigates or eliminates the harmful effects of traumatization (Bisson, Roberts, Andrew, Cooper, & Lewis, 2013). Trauma-focused therapy can be effective for a wide variety of diagnoses and presenting problems (Greenwald, 2013), because the symptoms underlying most problems — anxiety, depression, anger, avoidance, etc. (Harvey, Watkins, Mansell, & Shafran, 2004) — are posttraumatic stress symptoms.

Some trauma-focused therapies work by effecting memory reconsolidation, which entails accessing and activating the memory and then repeatedly introducing corrective information (Ecker, 2018). This does not merely desensitize or habituate; rather, it transforms or heals the memory such that it is no longer experienced as a painful wound, and no longer generates symptoms. Memory reconsolidation leads to profound and durable benefit (Ecker et al., 2012).

In recognition that memory reconsolidation does not require a slow, incremental approach (Ecker et al., 2012), a small but growing number of therapists now offer trauma-focused psychotherapy in an intensive format typically involving many hours per day on consecutive days. Numerous cases of successful intensive trauma-focused therapy have been reported (Bongaerts, Van Minnen, & de Jongh, 2017; Blount, Cigrang, Foa, Ford, & Peterson, 2014; Ehlers et al., 2010b; Gantt & Tinnin, 2007; Greenwald, 2013;

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Grey, 2011; Hendriks, De Kleine, Van Rees, Bult, & Van Minnen, 2010; Lande, Williams, Francis, Gragnani, & Morin, 2011; Lasser & Greenwald, 2015; Lobenstine & Courtney, 2013; Murphy et al., 2015; Van Woudenberg et al., 2018; Wesson & Gould, 2009; Zepeda Méndez, Nijdam, Ter Heide, Van der Aa, & Olff, 2018), including some with children and adolescents (Greenwald, 2013, 2014). A large, well-designed randomized controlled trial (Ehlers et al., 2014) found that an intensive 1-week course of evidence-based PTSD therapy had the same outcome as delivery of the same treatment over several months, except, of course, that the results were achieved much more quickly in the intensive format.

Compared to conventional hour-per-week therapy, potential advantages of intensive trauma-focused therapy are considerable:

- quick results: clients' presenting problems may be quite costly in terms of ongoing distress as well as lost opportunities. Some people in weekly therapy may be at risk of losing – or have already lost – their employment, school placement, or important relationships (Porche, Fortuna, Lin, & Alegria, 2011; Zivin et al., 2011). Yet, conventional weekly therapy can take months, or longer, to yield results. Conversely, intensive therapy can achieve results in days, curtailing the symptom-related harm and enabling clients to move on with their lives;
- treatment retention: short-term, efficient treatments reduce the risk of the treatment being disrupted by crises or other life events because the time available for these disruptions is diminished. Reported dropout rates for intensive therapy are far lower (e.g., 2–2.56%; Beidel, Frueh, Neer, & Lejuez 2017; Gantt & Tinnin, 2007; Van Woudenberg et al., 2018) than typical dropout rates for weekly trauma-focused therapy (Kline, Cooper, Rytwinski, & Feeny, 2018). In a meta-analysis, Kline et al., 2018 found dropout rates to range from 0 to 47%, with an average of 22%, using a sample of 32 PTSD trials with 72 treatment conditions including treatments such as cognitive restructuring, skills training in affective and interpersonal regulation, standard cognitive therapy, intensive cognitive therapy, and prolonged exposure. The dropout rate for weekly EMDR treatment is about 12% (Greenwald et al., 2015a);
- safety: although there has been debate and mixed findings as to whether trauma treatment can worsen posttraumatic stress disorder symptoms (Deville & Foa, 2001; Jayawickreme et al., 2014; Krüger et al., 2014; Tarrier, 2001; Taylor et al., 2003), worsening prior to healing has been observed (Tarrier et al., 1999). We have encountered this in our own clinical practice, with clients who have reported destabilization as a result of prior trauma treatment, as well as brief periods of symptom worsening during the course of our own treatment. There exists a risk that opening up a trauma memory could destabilize a therapy client, even if the therapist attempts to assist the client in deactivating the memory and regaining composure prior to leaving the session. This risk may be minimized in intensive therapy, because a memory that is opened is resolved in the same session, and related memories are also resolved in that session. Furthermore, resolution of trauma memories is at least as stabilizing as so-called stabilizing interventions (Ter Heide, Mooren, Kleijn, De Jongh, & Kleber, 2011; Ter Heide, Mooren, Van de Schoot, De Jongh, & Kleber, 2016), because what is destabilizing is the traumatization. Therefore, rapid completion of the trauma work may be safer than the slower weekly therapy's initial focus on stabilization;
- efficiency: perhaps a quarter to a third of a weekly therapy session is spent on beginning and ending sessions. Furthermore, a considerable portion of the course of conventional weekly trauma therapy is spent on stabilization and coping skills, particularly for those with severe symptoms (Cloitre et al., 2012). Teaching coping skills is essential to the extent that it may

enable the client to avoid further deterioration while awaiting the results of the trauma healing. Further, although it has long been assumed that clients needed these coping skills to be able to face the trauma work (Cloitre et al., 2012), the research literature has not clearly supported “stabilization phases” and trauma treatment has often been successful without (De Jongh et al., 2016). Intensive trauma-focused therapy without a preliminary stabilization phase has routinely been successful, though in the larger studies, stabilization interventions were interspersed throughout (Murphy et al., 2015; Van Woudenberg et al., 2018). In intensive therapy, most of the time normally needed for beginning and ending sessions is cut out, and most of the coping skill work can be skipped as well, because those skills will not be needed when the client is no longer traumatized and no longer has to cope with their symptoms. Thus, intensive therapy is likely to require only a fraction of the total treatment time required in conventional weekly therapy, to achieve an equivalent outcome;

- economy: completing successful trauma therapy while using fewer total therapist hours reduces the cost of treatment. Furthermore, rapidity of results reduces a range of costs associated with the client's otherwise ongoing symptoms, such as potentially precluding placement in a higher level of care (Greer, Grasso, Cohen, & Webb, 2014), medical problems (Levant, House, May, & Smith, 2006), reduced earning power (Goldstein, 2014), and destructive or violent behaviors (Sheidow, Jayawardhana, Bradford, Henggeler, & Shapiro, 2012);
- access: until every city and town enjoys an ample supply of competent trauma therapists, many prospective therapy clients cannot access the treatment they need in their area. The intensive therapy option enables people to travel to an expert therapist for a single extended session at a one-time cost. However, this is just a stop-gap in improving access until competent trauma therapists are more widely available.

In treating posttraumatic stress symptoms, the leading trauma-specific treatments (e.g., eye movement desensitization and reprocessing, trauma-focused cognitive behavioral therapy) are superior to supportive therapy or other approaches (Ehlers et al., 2010a). Although the leading trauma-specific treatments are about equally effective (Bisson et al., 2013), they are not necessarily equally suitable in clinical practice. Several of the so-called gold standard trauma therapies (trauma-focused CBT variants) have fared poorly in field implementation studies, in terms of therapist utilization as well as participant dropout (Najavits, 2015). Eye movement desensitization and reprocessing (EMDR; Shapiro, 2017) may or may not have a similar problem (Greenwald, 2006a); it has not yet been subject to an implementation study. We feature EMDR in our treatment center because it is as least as effective as the other leading treatments (Chen, Zhang, Hu, & Liang, 2015; Ho & Lee, 2012), it has been found to be better tolerated (lower dropout rate; Greenwald et al., 2019), and it is more efficient (Greenwald et al., 2019). We also feature progressive counting (PC; Greenwald, 2013), a newer trauma therapy that has thus far been found to be about as effective as EMDR (Greenwald, McClintock, & Bailey, 2013; Greenwald, McClintock, Jarecki, & Monaco, 2015b), possibly less emotionally challenging for clients, and possibly more efficient (Greenwald et al., 2015b).

It is necessary to test research-supported trauma treatments in field settings to ensure that they work in clinical practice, before the treatment can legitimately be recommended (Najavits, 2015). To date, only single-case or small multi-case studies of intensive EMDR (Bongaerts et al., 2017; Grey, 2011; Lobenstine & Courtney, 2013; Wesson & Gould, 2009; Zepeda Méndez et al., 2018) or PC (Greenwald, 2013, 2014; Lasser & Greenwald, 2015) have been published. The present study is of a larger group of intensive

trauma-focused therapy cases, featuring either EMDR or PC, in a clinical practice setting.

3. Method

The Trauma Institute operates a grant-funded program to provide no-cost intensive trauma-focused therapy to victims of crime who live in our geographic catchment area in Western Massachusetts, USA. Types of crime could include assault, rape, robbery, intimate partner violence, child abuse, kidnapping, homicide, etc., with witnesses and family members also eligible. See Table 1 for crime types that participants endorsed. No police report was required, and no time limitation (since the event) was applied. This archival study was approved by our IRB and registered at ClinicalTrials.gov with the registry number #NCT03271398.

3.1. Participants

3.1.1. Screening

In our clinic, grant-related limitations necessitate that we screen out prospective clients who we anticipate needing more than a week or two of intensive therapy. For example, we would typically screen out someone with a combination of very poor attachment status, chronic trauma history from an early age, habitual dissociation, history of previous failed attempts at trauma work, ongoing substance abuse, and frequent self-harm, because in our clinical experience that combination predicted treatment needs we could not meet in this program. During the present study, we did treat many people with one or more of these issues, as long as we felt that they would be able to quickly and safely engage in the trauma work, and the treatment would not take longer than our grant-related time constraints. The screening procedure included a structured clinical interview we designed for this purpose, in addition to the measures discussed below, as well as the Dissociative Experiences Scale (Bernstein & Putnam, 1986; Carlson & Putnam, 1993) when warranted to further assess dissociation. Decisions regarding screen-outs were made at the discretion of the screener (NG), who made judgments based on the presenting clinical picture, seeking consultation if needed. We refined our screening practices over the course of the year, as

described in more detail in Greenwald (2019). During the course of this study, 15 people were screened out for various reasons such as not having experienced a qualifying event, not residing in the designated catchment area, or requiring services beyond the scope of what we could offer in this program, such as needing further stabilization and/or too many days of treatment.

3.1.2. Participants' treatment randomization and completion

All 61 participants ($M_{age} = 40.62, SD = 13.57$, age range: 18–67) in the treatment program's first year were included in this study. All but 7 of the 61 clients were randomized to either PC or EMDR; two were not randomized because they were part of a case series involving only PC, and 5 were not randomized because the therapist to whom those participants were assigned had not yet learned EMDR. Twenty-eight (45.90%) of the 61 clients received EMDR and 32 (52.46%) received PC. Of these 61 clients, 54 completed treatment ("completers") and seven did not. Of the non-completers, five were what we called "slow screen-outs" meaning that the therapist discerned, during the first day of treatment, that the participant had been improperly screened in and was not suitable for the program (i.e., due to being unable to quickly and safely engage in the trauma work and/or clearly needing too much treatment time, as per our grant-related time constraints). The other two non-completers started treatment but dropped out. Completers were 44.44% EMDR (24 clients) and 55.56% PC (30 clients), while non-completers were 57% and 29%, respectively.

3.1.3. Participant demographics of treatment completers

Completers ($M_{age} = 40.80, SD = 13.70$) did not significantly differ in age from non-completers ($M_{age} = 39, SD = 13.51$), $t(58) = 0.31, p = 0.76$. Forty-three completers were women (79.63%), six were men (11.11%), two were transgender women (3.70%), and three participants classified themselves as another gender (5.56%). Fifty-one completers described their race or ethnicity as being White or Caucasian, seven as multi-racial, two as Hispanic or Latino, and one as another race or ethnicity. They denoted their sexual orientations as heterosexual ($n = 33, 61.11%$), gay or lesbian ($n = 13, 24.07%$), bisexual ($n = 2, 3.70%$), or pansexual ($n = 2, 3.70%$); four participants did not report sexuality demographics. Most treatment completers were single ($n = 28, 51.85%$) or married ($n = 15, 27.78%$), while the remaining participants were either living with a partner ($n = 3, 5.56%$) or were divorced ($n = 8, 14.81%$). Employment statuses included 18 working full-time, 10 part-time, 11 unemployed, 11 full-time students, and two retirees, while an additional two did not report this information. Finally, completers differed widely on their level of education. Most held a bachelor's degree ($n = 16, 29.63%$) or master's degree ($n = 16, 29.63%$). Other educational levels included: 14.82% some college, 11.11% high school diploma or equivalency, 3.70% doctorate, 1.85% 10th grade, and the remainder ($n = 5$) declined to answer or did not report their education level.

3.1.4. Participant demographics of treatment non-completers

Non-completers included four men (57%), two women (29%), and one transgender woman (14%). All non-completers denoted their race as White or Caucasian. They identified as being heterosexual ($n = 4$), gay or lesbian ($n = 1$), or another sexuality ($n = 1$); one participant did not report their sexual orientation. Five non-completers were single, one was with a partner, and one did not report their status. Most (86%) were unemployed and one did not report demographics on employment. The educational level of non-completers included high school completion or high school equivalency ($n = 2$), a bachelor's degree ($n = 1$), or some college ($n = 2$), while the educational level of two participants was unknown. In subsequent analyses, only completers are included.

Table 1
Types of crimes endorsed by participants.

Crime	Frequency (%)
Domestic violence	29 (50.0%)
Child physical abuse	22 (37.93%)
Adults molested as children	20 (34.48%)
Threats/harassment	18 (31.03%)
Witness to violence	17 (29.31%)
Adult sexual assault	16 (27.59%)
Child sexual abuse	11 (18.97%)
Driving under the influence/driving while intoxicated crashes	4 (6.89%)
Hate crimes	3 (5.17%)
Home invasion	3 (5.17%)
Survivor of homicide victim	3 (5.17%)
Disabled abuse	3 (5.17%)
Kidnapping	2 (3.45%)
Robbery assault	2 (3.45%)
Adult physical assault	1 (1.72%)
Witness intimidation	1 (1.72%)
Robbery	1 (1.72%)
Bullying	1 (1.72%)
"Other" (i.e., political violence)	1 (1.72%)

$N = 58$. We did not have data on the crime types for 4 of the 61 participants. The percentages of participants' crime types do not add up to 100% because many participants endorsed multiple crimes.

3.2. Measures

3.2.1. Trauma Symptom Inventory-2 (TSI)

The TSI-2 (Briere, 1995, 2011) is a widely used 136-item self-report measure comprising assessments of a range of posttraumatic stress disorder symptomatology, as well as related symptoms. It has numerous subscales including those for avoidance, intrusion, hyperarousal, anxiety, depression, and anger, dissociation, somatization, sexual disturbance, suicidality, insecure attachment, sense of self, and stress management, as well as validity scales. It has excellent psychometric properties, with good reliability and validity (Briere, 2011), and its subscales cover a broad spectrum of trauma-related symptoms. The TSI is used with our adult clients, age 18 and up. For all clinical subscales, scores of 60 to 64 indicate clinically problematic symptoms, and 65 and above denotes clinical significance. We assessed our clients' treatment outcomes by analyzing the number of clinically problematic or significant TI subscales, not including the atypical response or response level scales (indicators of validity) nor the somatization scale (redundant because of the inclusion of the two somatic preoccupation subscales, which comprise the somatization scale). Thus, the possible number of clinical problematic or significant subscales range from 0 to 27, with higher numbers indicating a greater severity of posttraumatic stress and related symptomatology.

3.2.2. Problem Rating Scale (PRS)

The PRS (Greenwald, 2006b) is an individualized three to four-item structured interview covering the client's primary concerns. The client is asked to identify their primary presenting problems and to provide a rating of current severity (i.e., as per the prior week) for each, on an 11-item Likert scale, with 0 representing no problem at all and 10 being the worst the problem could possibly be. This method of quantifying the primary presenting complaints is an inverse variant of the Goal Attainment Scale, which has good validity and reliability (Emmerson & Neely, 1988). However, the Goal Attainment Scale operationalizes behavioral or situational benchmarks at each rating point whereas the PRS only uses a numerical rating. The PRS is used as a parent report with child and teen clients, and as a self-report with teen and adult clients. Scores are computed by averaging the item ratings, with higher scores (range: 0 to 10) indicating a greater severity of presenting problems.

3.2.3. Stability and Ability Rating Scale (SAS)

The SAS was developed for this project over the course of the year. We had observed that, following treatment, a number of our formerly trauma-impaired clients were, for example, returning to school or work, or salvaging their on-the-brink marriages — that is, overcoming their trauma-related instabilities and disabilities — and we wanted a concise way of capturing these gains. Therefore, we developed a four-item measure with one item each, respectively, focusing on emotional stability, interpersonal relationships, work/school, and self-care. Each item is assessed on a five-item Likert scale with 1 representing good functioning and 5 representing poor functioning, with exact anchors differing for each item. An example item is Stability: 1 fully stable; normal emotional reactions to 5 require higher level of supervision/care (e.g., day treatment). Average scores can range from 1 to 5, with higher scores indicating a lower level of stability and ability. We found the SAS to have acceptable reliability for the present sample at pre-treatment, $\alpha = .75$.

3.2.4. Quality of Life Assessment (QOL)

To assess participants' quality of life, we used the European Health Interview Surveys — Quality of Life scale (EUROHIS-QOL) scale (Schmidt, Muhlan, & Power, 2006), an abridged version of the

World Health Organization Quality of Life Instrument — Abbreviated Version (WHOQOL-BREF). It contains 8 items, which are measured on a Likert scale from 1 very poor to 5 very good. Total scores are created by summing the responses, which can range from 8 to 40, with higher scores indicating a better quality of life. The QOL has shown good internal consistency ($\alpha = .83$) in a sample of individuals from multiple European countries and has demonstrated good convergent validity with measures of mental health, physical health, and social support (Schmidt et al., 2006).

3.2.5. Client Satisfaction Questionnaire (CSQ-8)

At post-treatment and follow-up, we administered the 8-item version of the CSQ (Attkisson & Zwick, 1982) to understand our participants' feelings about treatment after its completion. The eight items are measured on a four-point Likert scale, ranging from anchors indicating satisfaction to dissatisfaction, with some items reverse scored. Total scores are created by adding the responses of all items. Scores range from 8 to 32, with higher scores indicating more client satisfaction. An example item is: "If you were to seek help again, would you come back to our program?" (Likert scale: 1 No, definitely not to 4 Yes, definitely). The CSQ-8 has shown strong internal validity ($\alpha = .91$), as well as external validity in correlation with change in symptoms (Attkisson & Zwick, 1982).

3.3. Procedure

3.3.1. Assessment

Participants were assessed via structured interview (Greenwald, 2019) and the above-listed self-report measures at pre-treatment, then again at about two weeks post-treatment and twelve weeks post-treatment (i.e., "follow-up"). The CSQ was only administered at the post-treatment and follow-up assessment points. Assessment was conducted or directed by the screener (NG), with most of it completed online independently by the participants. Unfortunately, at the start of the program we did not conduct the assessments consistently, because the program was new and the assessment scheme was still being developed, and also because our first assessor under-performed for medical reasons and subsequently left, and it took a while to replace her.

3.3.2. Therapists

Three of the four therapists providing treatment in the Victims of Crime program's first year were the fourth, fifth, and sixth authors, respectively (KL, RC, BR). At that time, these three therapists had been trained in EMDR and PC for less than two years, and two (KL, RC) were working towards licensure at that time and received weekly individual supervision accordingly. The fourth therapist had been trained in PC the prior year and learned EMDR during the course of the year that is covered by this report.

Therapists completed EMDR and PC training programs accredited, respectively, by the relevant organizations: EMDR International Association for EMDR, and Trauma Institute for PC. All therapists had also participated in an extended training in which their videos of the various scripted sessions were shown and critiqued. During the period of this study, all therapists participated in a monthly group supervision session led by the first author (RG), in which clinical questions were raised and addressed. Although treatment fidelity was supported in these ways, it was not formally assessed.

3.3.3. Randomization

We have been conducting an internal evaluation to determine whether certain types of clients might do better with either EMDR or PC. The present study is not a comparison of EMDR to PC. Nonetheless, clients were assigned to therapist according to availability, and then randomized to PC or EMDR. If the assigned

method did not work, the therapist was free to try the other one; in this study there were no cases in which the treatment method was switched.

3.3.4. Treatment

The EMDR procedure, briefly, entails guiding the client to focus on the worst moment of the trauma memory while also concentrating on the therapist's fingers moving back and forth across the client's visual field. After about half a minute, the client is asked what they noticed, and guided to focus on that for the next set of eye movements. This procedure is repeated until the client reports no further memory-related distress and can fully endorse a positive reframe of the event (Shapiro, 2017).

The PC procedure, briefly, entails guiding the client to identify a beginning of the trauma memory before anything bad happened, and an ending to the memory after the bad part was over. Then the client is guided to imagine watching a movie of the memory from beginning to end, while the therapist counts aloud from one to 10. The next time the therapist counts to 20, then 30, etc. The procedure is repeated until the client reports no further memory-related distress (Greenwald, 2013).

The entire course of treatment was manualized, highly structured, and scripted (as per Greenwald, 2007, 2009, 2013) including introducing treatment, rapport building, identification of trauma history, case formulation, motivational work, attachment work (if needed), PC or EMDR and coping skills training (if needed). Session forms were provided including the scripts interspersed with spaces for the therapist's notes, and the therapists routinely used these forms while providing treatment. In contrast to conventional weekly therapy, in intensive therapy, Greenwald's (2007, 2013) treatment model is modified to skip the usual preliminary stabilization and coping skills phases, except to the extent that a particular issue must be dealt with to get the client through the treatment. For example, the therapist might work to support the client with skills or strategies to get to sleep at night, or avoid drug use, during the course of the treatment. Generally, though, the focus on coping strategies is deferred until after the trauma work is done.

With some variation, the intensive therapy typically proceeds as follows. The initial rapport-building, history-taking, motivational work, case formulation, and treatment recommendations are generally done by about lunch time of the first day. If the client has compromised attachment status, then perhaps an hour will be spent on attachment work (as per Greenwald, 2013 and Manfield, 2010), which may be periodically revisited throughout the course of treatment. The next step is a "test run" of the trauma resolution work (EMDR or PC) with a minor upsetting memory, which (assuming success) gives the client, as well as the therapist, the confidence to persist with more challenging memories. Then for the rest of that day as well as subsequent days, the client's entire history of trauma and loss memories are treated in chronological order from earliest to most recent, as per Greenwald (2007, 2009, 2013). Then anticipated challenges are identified and addressed, typically via imaginal rehearsal of coping skills (as per Greenwald, 2009). Finally, plans are made for following up.

Treatment was provided in our outpatient psychotherapy office for typically several full (9:00 a.m.–5:00 p.m. or equivalent) consecutive days, sometimes with additional days later on, as needed. The days included an hour break for lunch, and other shorter breaks as needed; and on occasion the client would end early due to fatigue or other reason. The duration of treatment was individualized; treatment was continued until completion or until grant-allowed treatment time ran out. The majority of clients in the present sample used 20 to 40 hours of treatment ($M = 30.70$, $SD = 17.79$), or about 2.5 to 5 days. We define the completion of intensive therapy as when the trauma and loss memories have been worked through (with the client reporting no further distress,

as per Greenwald, 2007, 2013) and any outstanding issues have been at least briefly addressed; some clients who complete our treatment will continue with another therapist, and others will not. Whereas with non-grant-funded intensive therapy clients, we persist until our treatment is done, in this grant-funded program we were constrained to cut treatment short if (a) the client was not finished within the first week, and (b) seemed unlikely to finish within a few additional days. Thus, many clients did complete treatment, but others did not, because they ran out of time.

3.4. Data analysis

We analyzed the pre-treatment and post-treatment data using the Analysis ToolPak for Excel 2016. To calculate effect sizes, we used Rosenthal's (1991) formula for dependent samples designs, in which d is equivalent to t divided by the square root of n (as cited in Lakens, 2013). Although we administered questionnaires at pre-treatment, post-treatment (2 weeks following treatment completion), and follow-up (12 weeks following treatment completion), not all participants completed assessments at the three timepoints. Of the 54 treatment completers, 12 had no outcome data at all, with an additional participant having outcome data, but no pretreatment data for comparison. Thus, these 13 participants were cut and we report on 41 in subsequent dependent samples t tests assessing change from pretreatment to the "latest available timepoint" assessment (i.e., either post-treatment or follow-up). We decided to employ dependent samples t tests rather than ANOVAs to analyze treatment gains because we had data at three timepoints for only 19 clients, yet data at two timepoints (i.e., pre-treatment and "latest available timepoint") for 41. We determined that this was justified after ANOVA and posthoc analyses of those clients with assessment data at all three timepoints (see Fig. 1), as there was not a significant difference between post-treatment and follow-up scores. Additionally, these analyses demonstrated that the significant improvements in symptomatology occurred over the course of treatment (i.e., a significant improvement in symptoms from pre-treatment to post-treatment) rather than afterwards. Therefore, we report on 41 clients in the following pre-post analyses. Moreover, though these 41 participants had data for most outcome and pretreatment assessments, some were missing data on specific measures, leaving the following n s for analysis: $n = 38$ (PRS), $n = 37$ (EUROHIS-QOL and TSI), and $n = 35$ (SAS). At pre-treatment, the participants randomized to EMDR and PC did not statistically differ on any of the treatment variables.

4. Results

4.1. Treatment outcomes

4.1.1. Treatment time and trauma memories processed

Of the 54 clients who completed treatment, we had data on the length of treatment for 50. These participants required an average of 30.73 hours ($SD = 17.79$) of treatment. Treatment time did not significantly differ between those randomized to EMDR ($M = 33.41$, $SD = 17.02$) and PC ($M = 28.58$, $SD = 18.39$), $t(48) = 0.95$, $p = .35$. Most participants ($n = 37$, 68.52%) processed all or nearly all of their reported trauma memories, while others processed some ($n = 10$, 18.52%), or none or nearly none ($n = 4$, 7.41%). We do not have data for three clients' amount of trauma memories processed. The 41 clients included in the remaining analyses had an average treatment time of 34.60 hours ($SD = 10.60$).

4.1.2. Problem rating scale

To evaluate treatment outcomes following trauma treatment, we conducted a paired samples t test for $n = 38$ clients with data for

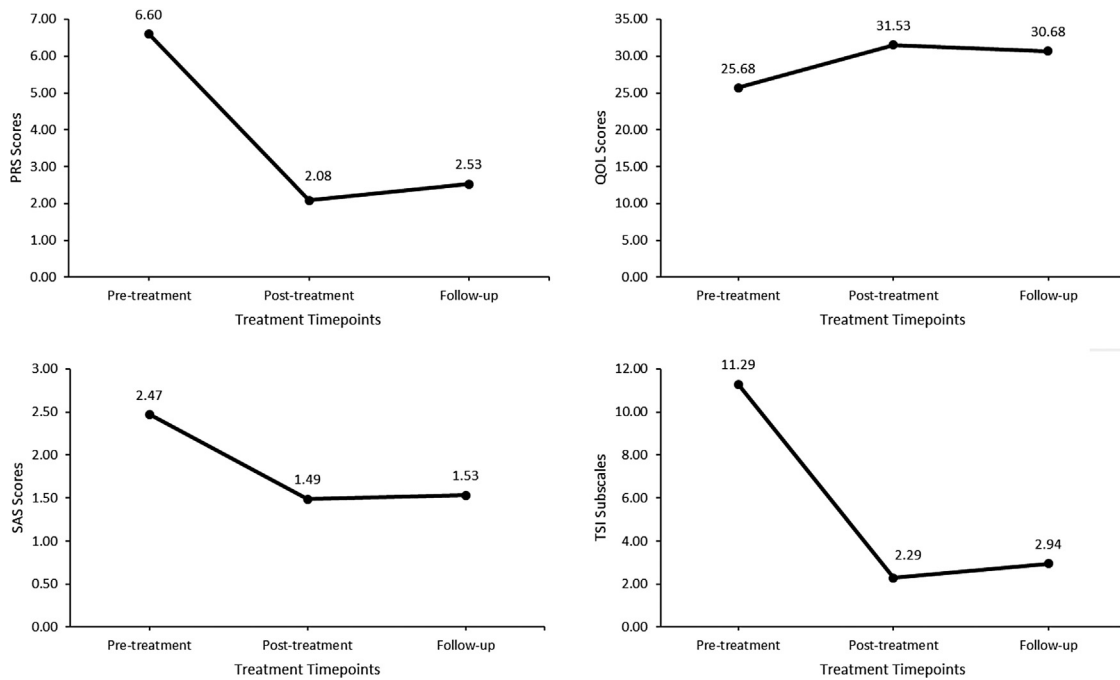


Fig. 1. Mean scores (PRS, QOL, SAS) and number of clinically problematic or significant subscales (TSI) at treatment timepoints for those clients with assessment data at all three timepoints. For these clients, ANOVAs revealed a significant difference across the timepoints for all four measures, $F_{PRS}(2, 36) = 3.26, p < .001, n = 19$; $F_{SAS}(2, 32) = 3.29, p < .001, n = 17$; $F_{TSI}(2, 32) = 3.29, p < .001, n = 17$. Posthoc dependent samples t tests showed that, for all four measures, there was a significant change in scores from pre-treatment to post-treatment ($p < .001$) and from pre-treatment to follow-up ($p < .001$); additionally, there was not a significant difference from post-treatment to follow-up, conveying the improvements occurred during the course of treatment.

the Problem Rating Scale (Greenwald, 2006b) at both timepoints. There was a significant decrease in the reported scores from pre-treatment ($M = 6.85, SD = 1.30$) to the latest available timepoint ($M = 2.76, SD = 2.21$), $t(37) = 11.51, p < .001$. We found the effect size for this analysis ($d = 1.87$) to far exceed Cohen's parameters for a large effect size (i.e., $d = .80$), thus indicating that this treatment improvement is of strong practical and clinical significance. For those clients who processed all or nearly all of their reported trauma memories, there was a negligibly greater improvement in reported PRS scores from pretreatment ($M = 6.86, SD = 1.18$) to the latest available timepoint following treatment ($M = 2.64, SD = 2.33$), $t(29) = 9.77, p < .001$, with $d = 1.78$. Additionally, participants randomized to PC ($M = 3.08, SD = 2.47$) and EMDR ($M = 2.22, SD = 1.43$) did not significantly differ at the latest timepoint following treatment, $t(37) = -1.18, p = .24$.

4.1.3. Quality of life

Using a paired samples t test, we analyzed data from 37 clients who reported EUROHIS-QOL (Schmidt et al., 2006) at two timepoints that included pre-treatment and the last available timepoint following treatment. Results suggested significant gains in QOL from pre-treatment ($M = 24.62, SD = 4.73$) to the latest available timepoint ($M = 29.46, SD = 4.83$), $t(36) = -6.60, p < .001$. We found a large effect size ($d = -1.09$) for this analysis, which suggests that the improvement is of clinical and practical significance. The subset of clients having processed all or nearly all of their trauma memories showed similar improvements in QOL from pretreatment ($M = 24.77, SD = 5.08$) to after treatment ($M = 29.37, SD = 4.92$), $t(29) = -5.63, p < .001$, with $d = -1.03$. Likewise, at the latest timepoint available following treatment, the PC group ($M = 29.21, SD = 4.93$) and the EMDR group ($M = 30.13, SD = 5.57$) showed no significant difference in the change they reported after trauma treatment, $t(38) = 0.55, p = 0.59$.

4.1.4. Trauma symptom inventory

We conducted a paired samples t test to evaluate change in the number of clinically problematic (i.e., scores 60 to 64) or significant (i.e., scores 65 and above) subscales of the Trauma Symptom Inventory-2 (TSI-2; Briere, 1995; Briere, 2011) following trauma treatment for $n = 37$ clients with corresponding data for both timepoints. There was a significant improvement in the number of subscales from pretreatment ($M = 13.70, SD = 7.49$) to the latest available post-treatment timepoint ($M = 4.49, SD = 6.89$), $t(36) = 8.21, p < .001$. We found a very large Cohen's d ($d = 1.35$), indicating strong practical and clinical significance. Additionally, further bolstering the clinical significance, 19 participants (50%) had no TSI subscales in the clinically problematic or significant ranges following treatment. For those who processed all or nearly all of their reported trauma memories in treatment, there was slightly greater significant decrease in the number of clinically significant or problematic TSI subscales from pretreatment ($M = 12.87, SD = 7.00$) to after treatment completion ($M = 4.17, SD = 6.52$), $t(29) = 7.76, p < .001, d = 1.42$. They also comprised 16 of the 19 clients who ended up with no clinically problematic or significant TSI subscales. There was also no significant difference in the improvement seen in the PC group ($M = 4.29, SD = 7.01$) and the EMDR group ($M = 5.88, SD = 7.86$), $t(38) = 0.67, p = .51$.

4.1.5. Stability and ability

To investigate trauma treatment outcomes, we conducted a paired-samples t test on $n = 35$ participants' Stability and Ability Rating Scale data. We found a significant improvement from pre-treatment ($M = 2.65, SD = 0.65$) to the latest available timepoint ($M = 1.57, SD = 0.57$), $t(34) = 8.49, p < .001$, with $d = 1.43$. This very large effect size connotes practical and clinical significance of the treatment. The subset of clients who processed all or nearly all of their reported trauma memories showed a similar improvement in

Stability and Ability Scale scores from pretreatment ($M = 2.67$, $SD = 0.67$) to the latest timepoint following treatment completion ($M = 1.54$, $SD = 0.54$), $t(27) = 7.41$, $p < .001$, $d = 1.40$. Following trauma treatment with their respective therapy, the PC and EMDR groups showed significant improvement, as noted above, but no significant difference in their efficacy, $t(35) = -0.96$, $p = .35$, with the PC group having a mean score of 1.65 ($SD = 0.61$) and the EMDR group having a mean score of 1.46 ($SD = 0.44$).

4.1.6. Client satisfaction

Participants had an average Client Satisfaction Questionnaire (Attkisson & Zwick, 1982) score of 29.14 ($SD = 3.19$) for the latest available timepoint (i.e., either post-treatment or follow-up). To see if client satisfaction changed from post-treatment to follow-up (i.e., the two timepoints at which we measured client satisfaction), we conducted a paired samples t test with those clients who had data for both timepoints ($n = 20$). As anticipated, no significant difference was found between post-treatment ($M = 29.10$, $SD = 3.08$) and follow-up ($M = 29.50$, $SD = 3.55$), $t(19) = -0.84$, $p = .41$. Likewise, clients randomized to the PC group ($M = 28.56$, $SD = 5.34$) and the EMDR group ($M = 29.80$, $SD = 2.70$) did not significantly differ in their satisfaction with treatment at our center at post-treatment, $t(24) = 0.98$, $p = .34$, or at follow-up, $t(33) = 1.17$, $p = .25$ ($M_{PC} = 28.65$, $SD_{PC} = 3.94$; $M_{EMDR} = 29.93$, $SD_{EMDR} = 1.79$).

4.1.7. Adverse outcomes

All participants (for whom we had data) improved from pre-treatment to last available post-treatment measurement. However, several participants reported brief periods of increased symptoms. This occurred in two distinct circumstances. The most common was when treatment had been only partially completed and there was a delay of several days to several weeks prior to having been able to schedule the rest of it; a few participants in that situation reported an increase of intrusive symptoms, reactivity, and/or general malaise. Following completion of treatment, a couple of participants also reported what we call "passing storms" of a brief period (perhaps a day or several) of feeling "messed-up," hyper-sensitive, etc. Unfortunately, we did not formally track these reports.

5. Discussion

In this study, we explored the efficacy of intensive trauma-focused therapy, featuring EMDR or PC, for treatment-seeking victims of crime. We treated trauma memories – not diagnoses – and those participants for whom we had data made statistically significant and clinically meaningful improvements on all outcomes, including posttraumatic stress and related symptomatology, severity of primary presenting problems, overall stability and functioning, and quality of life. Both EMDR and PC achieved equivalent results. Reported participant satisfaction with the service was very high.

5.1. Strengths and limitations

Strengths of the study include independent assessment with objective measures, participants being treatment-seeking clients in a clinical/field setting, and a manualized and structured treatment approach that is replicable and well-suited to clinical practice. Two different trauma healing methods, EMDR and PC, were used, indicating that each of these methods can be effectively implemented in the intensive therapy format. The study involved several therapists who were well trained and supervised but not so experienced in the methods; in other words, these were not experts and their results should be achievable by others. We

promoted treatment fidelity by providing appropriate training, using a manualized treatment approach, providing ongoing clinical supervision, and having the therapists use the scripted session forms throughout the provision of treatment.

Limitations – common to archival field studies – include lack of evaluation of treatment fidelity, and inconsistency in getting the assessments done. In this clinical setting, there was no waitlist or weekly therapy comparison condition; however, our effect sizes in the $d = -1.03$ – 1.87 range are consistent with the range of those reported in other EMDR treatment studies (e.g., $g = .96$, Chen et al., 2014; $g = 1.24$, Ehring et al., 2014), in which treatment was delivered in non-intensive formats. Due to the assessment issues noted in the Procedures section, our early completers were under-represented in the outcomes due to missing data from that time period. This could have biased the results, although the informal post-treatment reports from those clients were similar to those of later clients. Also, we did not track whether a given participant may have engaged in further weekly therapy following their intensive work with us, so it is possible that the maintenance of improvements from post-treatment to follow-up could have been due in part to treatment we did not provide.

Participants were not diagnosed, making it difficult to precisely define our sample. Although inclusion criteria were broad, we did exclude those who we believed would not be able to complete their treatment within one to two weeks. Thus, the present findings may not generalize to prospective therapy clients who are more severely distressed. We also did not report on the specific details of participants' individual trauma histories (and did not conduct analyses by trauma type), so it is difficult to generalize these findings to specific populations. However, the breadth and severity of participants' symptoms at pre-treatment indicates that many participants likely had complex PTSD and suffered significant trauma-related impairment.

5.2. Benefits and drawbacks of intensive trauma-focused therapy

These findings indicate that intensive trauma-focused therapy, featuring EMDR or PC, effectively delivered the posited benefits. The intensive therapy was well-tolerated. The victims of crime whom we treated, many of whom were highly distressed and had compromised functioning, were able to engage in and succeed with treatment. The dropout rate was extremely low.

The treatment was rapid, efficient, and effective. Clients (for whom we had data) consistently made statistically and clinically significant improvements in an average of just under a week, and many reported being able to maintain, or return to, school, work, and/or important relationships. Most of those who completed treatment became fully asymptomatic. Benefits persisted at three-month follow-up. Although our participants may not be directly comparable to those in other studies of intensive trauma-focused therapy, our findings are generally consistent with those cited earlier.

Some adverse reactions occurred during the course of treatment, when not enough time was allowed in the initial multi-day session to complete the course of treatment. We have learned to minimize this risk by scheduling enough consecutive days for the initial session, based on the estimate we derive from our screening protocol. There were also occasional post-treatment adverse reactions, which tended to pass within a few days or less. Although this has yet to be empirically determined, our impression was that our intensive therapy participants had fewer adverse reactions, and these were more quickly remedied, than would have been the case had the same clients been in weekly trauma-focused therapy.

Many of the participants had previously been diagnosed with complex PTSD and had been in and out of therapy for many years.

Yet, a few days of this intensive treatment largely solved the problem. Our therapists are good, but so are many others – so why were our treatment results so powerful and so quick? We believe that the intensive therapy format reduces treatment obstacles and increases efficiency. We also suspect that the use of efficient and well-tolerated research-supported trauma therapies (i.e., EMDR and PC) contributed to the high rate of treatment efficiency as well as retention.

Some of our participants continued with their existing weekly therapists after completing intensive trauma-focused therapy. Whereas trauma healing will do the job for many therapy clients – and our model does include some work with motivation and behaviors – some people will need to follow up with further work in various areas. Ultimately a hybrid model is probably ideal, so that the trauma healing can be done quickly, followed by other types of support or intervention as needed.

5.3. Selection of prospective clients

Not every prospective therapy client is suitable for intensive therapy. We screened out some prospective clients because we were concerned that they were not capable of effectively engaging in the trauma work without extensive preparation (e.g., for affect tolerance or developing trust in the therapist), and/or the prospective client was so unstable (e.g., active self-harm, substance addiction) that we feared intensive outpatient therapy could be unsafe for them. Others were screened out of this grant-funded program because their symptoms and trauma history were so extensive that treatment duration would have exceeded the grant-related time constraints; we do successfully treat many such cases on a private-pay basis.

5.4. Can any therapist provide intensive trauma-focused therapy?

Unlike many treatment innovations, there are some barriers to a therapist simply starting to provide intensive trauma-focused therapy. It is essential to have training and competence in an effective trauma healing method such as EMDR or PC, including how to prepare clients for the trauma work. From there, however, it is not so hard to learn the few additional modifications required to convert from the conventional weekly therapy format to intensive therapy (Greenwald, 2019). Another challenge is that many therapists do not have time in their already-scheduled week to routinely clear multiple consecutive days for an intensive therapy client. Furthermore, in most countries, insurance companies do not generally pay for individual outpatient therapy provided in the intensive format, and most people do not have the financial resources to pay so much at once, out of pocket. Even so, it may be possible for some therapists to segue into the intensive trauma therapy format by, for example, occasionally scheduling a client for a full day of therapy – when financial means allow – to get through a substantial portion of the trauma work.

6. Conclusion

This was the first group study of intensive therapy utilizing Greenwald's (2007, 2013) treatment model, as well as the largest study to date of intensive therapy featuring either EMDR or PC, respectively. Our findings with treatment-seeking clients in a field setting were consistent with the literature on EMDR, PC, and intensive trauma-focused therapy: It works about as well as the same method would otherwise be expected to, and much more quickly. As intensive therapy gains popularity and research support, we hope that more insurance companies will be willing to cover this treatment format and invest in quicker results, lower

dropout rates, and long-term savings. Meanwhile, intensive trauma-focused therapy is unfortunately available only to those with financial resources or those who can access specially-funded programs.

Prospective therapy clients tend to like the idea of “getting it over with.” Pending further research support, intensive trauma-focused therapy has the potential to become a primary treatment option for trauma-related problems.

Disclosure of interest

The authors declare that they have no competing interest.

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