Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Delivering Intensive PTSD Treatment Virtually: The Development of a 2-Week Intensive Cognitive Processing Therapy-Based Program in Response to COVID-19

Philip Held, Brian J. Klassen, Jennifer A. Coleman, Kaitlin Thompson, Thad S. Rydberg, Rebecca Van Horn, Rush University Medical Center

Of the many vulnerable groups affected by the spread of COVID-19, veterans have been especially impacted by the pandemic. Beginning in March 2020, nationwide shelter-in-place orders rapidly led to widespread job loss and economic upheaval; disruption and breakdown of multiple support systems; and increases in family stress, all of which may exacerbate underlying PTSD symptoms. Although telehealth has proven an effective means of delivering evidence-based psychotherapies for PTSD, little is known about the delivery of these treatments in an intensive, daily format over telehealth. There is growing need for intensive treatment options to reduce treatment-interfering barriers such as high dropout rates. In order to address this gap in the literature, this paper details several design considerations as well as patient selection procedures for a 2-week virtual intensive treatment program (vITP) for veterans with posttraumatic stress disorder (PTSD), consisting of daily individual Cognitive Processing Therapy (CPT) and other adjunctive interventions. We also describe two cases of veterans who successfully completed the vITP including their clinical outcomes, therapist reflections on the process, feedback regarding the program, as well as challenges patients encountered with the telehealth platform. Intensive evidence-based psychotherapy for PTSD delivered through a virtual format seems to show promise, but more systemic research is needed.

Disruption to traditional, in-person mental health services caused by the global COVID-19 pandemic forced many mental health practitioners and the patients they serve to adapt to a rapidly changing environment with many unknowns. Of the many vulnerable groups affected by the spread of COVID-19, veterans have been especially impacted by job loss, isolation, loneliness, and increased family stress (Ramchand et al., 2020). Although data are preliminary at this early stage, there is concern that these conditions may exacerbate underlying mental health conditions such as posttraumatic stress disorder (PTSD). PTSD and other trauma-associated conditions may be uniquely exacerbated by the current environment because social distancing may keep veterans from valuable social support and productive distractions, which may lead to an increase in intrusive memories, nightmares, and other trauma symptoms (Ramchand et al., 2020). Anecdotally, some veterans have remarked that the current environment precipitates feelings of lack of control, which may be distressing for some trauma survivors. Unfortunately, this increase in traumatic reminders and worsening symptoms comes at a time when access to mental health care has been impaired by shelter-in-place orders and limited in-person clinic services.

Telehealth has emerged as a viable treatment delivery format prior to COVID-19 (Gros et al., 2013). Despite existing regulatory barriers and skepticism, the pandemic has expedited providers’ and policymakers’ motivation to determine how to bring teletherapy up to par with in-person psychotherapy services. As a direct result of the ongoing pandemic, telehealth services have become more widely available and accepted by patients and providers alike, as well as recognized by the Centers for Medicare and Medicaid Services and other insurance companies as valid forms of treatment and eligible for reimbursement (Centers for Medicare & Medicaid Services, 2020). Several recent articles have summarized the strong evidence for and detailed best practices for delivering evidence-based treatments via telehealth to continue to help providers smoothly

Keywords: PTSD; cognitive processing therapy; intensive treatment; telehealth; veterans

1077-7229/20 © 2021 Association for Behavioral and Cognitive Therapies. Published by Elsevier Ltd. All rights reserved.
transition from in-person care (Liu et al., 2019; Morland et al., 2020; Morland et al., 2020). Although there have been recent publications about delivering evidence-based treatments via telehealth (Gros et al., 2013; Moring et al., 2020), delivering these treatments in an intensive model has not received the same attention. Furthermore, there is still a need to assess veterans’ attitudes toward telehealth services, as research has shown mixed levels of comfort with this novel platform (Goetter et al., 2019). Though familiarity and confidence with the platform has shown to be unrelated to symptom change (Price & Gros, 2014), it could be preventing some individuals from engaging.

There is mounting research that supports evidence-based treatment delivery via intensive treatment programs (ITPs; Held et al., 2019). These programs tend to range from 1–3 weeks during which individuals receive daily sessions of various evidence-based treatments. Studies have shown that ITPs can both improve dropout rates associated with traditionally delivered weekly care (up to 40% attrition in weekly therapy compared to 8–10% attrition for ITPs; Held, Klassen, Boley, et al., 2020; Kehle-Forbes et al., 2016; Sayer et al., 2017) and produce large PTSD and depression symptom reductions that persist throughout 12-month follow-up (Held et al., 2019). Intensive treatment programs tend to combine adjunctive services, such as dialectical behavior therapy (DBT), mindfulness, yoga, and art therapy, which can improve treatment satisfaction, and may have positive effects on retention and outcomes (Beidel et al., 2017, 2019; Held et al., 2019; Held, Klassen, Boley, et al., 2020; Miller et al., 2020). Furthermore, to decrease distractions and limit opportunities for avoidance (Stecker et al., 2013), services are usually delivered in an immersive environment, away from the participant’s home (Harvey et al., 2017). The spread of COVID-19 has limited veteran’s access to these ITPs due to travel restrictions and the need to enforce social distancing.

In this paper, we provide an overview of the development of a 2-week virtual ITP (vITP). The virtual program was designed to continue to provide veterans with intensive, daily evidence-based PTSD treatment, along with select adjunctive services during the COVID-19 shelter-in-place orders and travel restrictions. We discuss program design considerations, the selection of a telehealth platform, and the patient selection process. We also describe two cases of patients who successfully completed the virtual intensive PTSD treatment program, including their clinical outcomes, feedback regarding the program, and challenges faced using the virtual delivery format. We conclude with a call for future systematic research on virtually delivered intensive treatments as well as licensure and policy changes to address patient-based barriers that may impede wider implementation of virtual intensive treatment programs.

**Program Design Considerations**

The 2-week virtual intensive PTSD treatment (vITP) described in this paper is an adaptation of the 3-week in-person ITP (Held, Zalta, Smith, et al., 2020; Zalta et al., 2018). The program has previously been demonstrated to be well-liked, well-tolerated, and highly effective in both the short- and long-term (Held, Klassen, Boley, et al., 2020). During the 3-week in-person ITP, veterans receive daily individual CPT and daily group CPT along with a number of group-based adjunctive wellness and psychoeducational interventions. CPT was modality selected because it is the primary modality used in this clinic and the existing in-person ITP. All therapists in the clinic are trained and certified in CPT, and the program has ample data to support the effectiveness of the intensive delivery format (Held, Zalta, Smith, et al., 2020). More information about the program can be found in Held, Klassen, Boley, et al. (2020) and Zalta et al. (2018).

In designing the 2-week virtual ITP, program staff attempted to balance the desire to efficiently provide evidence-based treatment in an intensive format while taking into account a range of new challenges facing individuals due to COVID-19 (Moring et al., 2020; Ramchand et al., 2020). For example, whereas veterans previously traveled to Chicago, IL, for the in-person ITP and had the opportunity to focus solely on their treatment for 3 weeks, many individuals were now balancing multiple additional demands, including childcare, elder care, working from home, lack of privacy, etc., which could make actively participating in an ITP even more difficult. Taking these challenges into account, the team decided that 3 weeks of virtual programming may not be feasible for many veteran participants. Similarly, in the 3-week in-person ITP, veterans were engaged in treatment-related activities from 0800–1700 with small breaks in between activities. Such an involved daily schedule did not seem feasible for a vITP because of many of the new limitations identified above.

**Program Length**

To address these new challenges around feasibility, the team decided to condense the 3-week in-person ITP into a 2-week format. Although veterans generally find the 3-week length of the in-person program acceptable (Held, Klassen, Boley, et al., 2020), it has been shown that similar symptom reductions can be achieved over a shorter timeframe (e.g., Bryan et al.,...
The 2-week timeframe appeared more feasible given shelter-in-place limitations and still enabled the team to build a schedule that would support the combination of evidence-based trauma-focused interventions with adjunctive services that veterans previously reported as finding helpful (Held, Klassen, Boley, et al., 2020). A number of veterans who previously participated in the 3-week in-person ITP remarked that the treatment days were too long. For the 2-week vITP, daily schedules were limited to 0900–1500. In order to accommodate participants with significant childcare or other family obligations during this time, the team opted to present any activities outside of individual CPT, which is considered the core component of the vITP, as optional. Thus, at minimum, veterans were expected to attend two 50-minute CPT sessions per day. Figure 1 provides a detailed schedule of the 2-week vITP.

### Figure 1. 2-Week Virtual Intensive PTSD Treatment Program Schedule

| Monday   | Tuesday                  | Wednesday                   | Thursday                  | Friday                  |
|----------|--------------------------|-----------------------------|---------------------------|-------------------------|
| 8:00     | Orientation              | Assessments                 | Assessments               | Assessments             |
| 9:00     | Assessments             | Stuck Point Group           | DBT-Based Skills Group    | Stuck Point Group       |
| 9:30     |                          |                             |                          | DBT-Based Skills Group  |
| 10:00    | CPT Session 1           | CPT Session 3               | CPT Session 5             | CPT Session 7           |
| 10:30    | Homework                | Homework                    | Homework                  | Homework                |
| 11:00    | Lunch/Break             | Lunch/Break                 | Lunch/Break               | Lunch/Break             |
| 11:30    | CPT Session 2           | CPT Session 4               | CPT Session 6             | CPT Session 8           |
| 12:00    | Homemwork               | Homework                    | Homework                  | Homework                |
| 12:30    | Yoga Group              | Mindfulness Group           | Yoga Group                | Mindfulness Group       |
| 13:00    | Sleep Hygiene           | Case Management             | Art Therapy Group         | Case Management         |
| 13:30    |                           |                             |                           |                         |
| 14:00    | CPT Session 11          | CPT Session 13              | CPT Session 15            | CPT Session 17          |
| 14:30    | Homework                | Homework                    | Homework                  |                         |
| 15:00    | Yoga Group              | Mindfulness Group           | Yoga Group                |                         |
| 15:30    | Mindfulness Group       | Yoga Group                  | Yoga Group                |                         |
| 16:00    | Art Therapy Group       | Case Management             | Art Therapy Group         | DBT-Based Skills Group  |
| 16:30    |                           |                             |                           |                         |

**Figure 1. 2-Week Virtual Intensive PTSD Treatment Program Schedule**
Core Treatment Components

From the clinic’s experience with delivering intensive in-person evidence-based PTSD treatment, we knew that daily CPT (Resick et al., 2017) sessions would be essential to counteract avoidance as well as to help with the practice and retention of new skills and cognitive changes. Although our 3-week in-person ITP consists of 13 daily 90-minute group CPT sessions, which are considered a core component, we opted to significantly reduce group CPT sessions offered in the vITP to four 1-hour sessions spaced throughout the 2-week period. The decision to reduce the number of CPT groups was made out of concern for reduced ability to control confidentiality among group members in a virtual setting. To limit potential challenges associated with rapport building between group members in a virtual setting, deeper trauma processing was limited in group sessions, and stuck points discussed in the groups were general rather than person specific. Thus, CPT group providers utilized a structured approach given the virtual setting.

It has previously been shown that two individual CPT sessions per day can result in rapid cognitive change and symptom reductions (Held, Klassen, Small, et al., 2020). Given the relatively short timeframe, the team decided to offer 18 sessions of individual CPT over the course of the 2-week vITP. Veterans received two individual CPT sessions per day, starting on the first day of treatment. We have found that immediate practice of skills learned in session can help with retention of new concepts and provide momentum for the next session. Thus, each treatment session was followed by a block of time for the completion of homework assignments, similar to when CPT is delivered in a single week (Held, Klassen, Small, et al., 2020). Although the CPT protocol is traditionally completed in 12 sessions (Resick et al., 2017), research has shown that some individuals can benefit from additional sessions. Moreover, we anticipated that patients might encounter unavoidable distractions, technical telehealth complications, or other conflicts with completing sessions since they were attending sessions from their homes and wanted to offer veterans a buffer in case unanticipated events prevented full participation in a session. Veterans also had the option to complete treatment early if they responded to treatment quickly and achieved a substantial PTSD symptom reduction (PTSD Checklist for DSM-5 total scores lower than 20 points) and felt as though they had sufficient skills to maintain their treatment gains.

Additional Treatment Components

With individual and group CPT as the centerpiece, we opted to include Dialectical Behavior Therapy–based (Linehan, 2015) skill groups as past work had shown this component to be an effective addition alongside trauma-focused psychotherapy, especially for veterans who have experienced sexual trauma (Lofgreen et al., 2020). The DBT-based skills group curriculum was covered over five 50-minute sessions and included the following five skills: crisis skills, emotion education, emotion regulation skills, healthy relationship boundaries, and keeping and improving relationships/maintaining self-respect using assertive communication with consideration for differences in military and civilian communication. For veterans with substance-related concerns, we had appointments available with clinicians who could engage with veterans using motivational interviewing (Miller & Rollnick, 2013) as well as cognitive behavioral therapy for substance use disorders, as needed.

In the afternoons, veterans had the option to participate in mindfulness sessions, guided instruction in trauma-sensitive yoga, as well as art therapy, all well-liked components of our 3-week in-person program. The mindfulness group sessions were based on Mindfulness-Based Resiliency Training and included the following: instruction in formal and informal mindfulness practices, education on the stress reaction cycle and how mindfulness can promote a more skillful response to stress, and discussion and practice of self-compassion. The trauma-sensitive yoga sessions brought that same mindful awareness to the body in motion, allowing participants to bring attention to the body in a way that is curious and nonjudgmental, and giving them an opportunity to make empowered choices with their body. This encouraged them to become an active and knowledgeable participant in their own health in well-being. Overall, the inclusion of adjunctive services allowed for the targeting of COVID-19-related or other stressors while the CPT elements allowed for explicit targeting of index traumas.

During the program, veterans were asked to complete self-report measures to monitor progress, similar to the practices in the 3-week in-person ITP. Mondays, Wednesdays, and Fridays veterans were asked to complete the PTSD Checklist for DSM-5 (PCL-5; Blevins et al., p. 5, 2015; Bovin et al., 2016) and Patient Health Questionnaire (Kroenke et al., 2001). Other measures were administered on Tuesdays and Thursdays. Veterans were emailed questionnaires early on designated
mornings and instructed to complete them prior to their individual CPT session. Clinicians reviewed the scores with the veterans during the first individual CPT session on those days.

**Treatment Preparation**

The realities of treating veterans in their homes instead of in a more controlled clinical setting also informed our program’s design. The clinic’s practice before an in-person ITP is to contact veterans to engage them in motivational interviewing–informed engagement sessions about their level of readiness to fully participate in a trauma-focused treatment. For the vITP, the pretreatment engagement sessions were retained and particularly focused around hesitations and concerns associated with attending a virtual program.

Members of the team helped veterans test the telehealth platform before the start of the vITP to address any problems they might encounter later and identify solutions in advance (e.g., provide call-in numbers in case internet connections break down). In addition, an orientation was scheduled in the beginning of the vITP. Similar to the in-person program, this orientation was intended to introduce veterans to the general program structure and etiquette during virtual sessions but also to remind veterans to be patient as various unforeseen issues may occur. Due to the virtual nature of the program, the importance of having a private location to allow for confidentiality of all veterans was highlighted. Last, all staff involved in the vITP briefly attended the orientation meeting so that veterans could virtually meet them ahead of their first sessions with these providers.

Veterans were sent electronic copies of the CPT worksheets and other program materials (i.e., worksheets, handouts, etc.) prior to the start of the vITP. All materials were sent at once so that veterans had a single place to refer to for all materials. Veterans were given the option to print these materials, view and complete them electronically using a word processing program, or complete exercises in their own notepads based on individual preference and access.

**Patient Selection**

Veterans who were on the waitlist for the 3-week in-person ITP, which was placed on hold in mid-March due to COVID-19, were contacted about participating in a vITP pilot program as an alternative treatment option. Similarly, veterans who were currently established outpatients were also offered participation. The intake evaluation procedures largely resembled those of the 3-week in-person ITP (Held, Klassen, Boley, et al., 2020; Zalta et al., 2018). Prior to starting the vITP, all veterans participated in a phone- or video-based psychosocial interview and a structured diagnostic assessment using the Clinician Administered PTSD Scale for DSM-5 (CAPS-5; Weathers et al., 2018) that was used to confirm a PTSD diagnosis and identify an index trauma. In addition, veterans were asked to complete a self-report assessment battery. Following these initial steps, clinicians reviewed available medical records from the VA, DOD, or private providers. Each case was then discussed in an interdisciplinary case conference to determine appropriateness for the 3-week in-person ITP or the 2-week vITP pilot program. The inclusion and exclusion criteria for the vITP closely resembled that of the in-person ITP (Held, Klassen, Boley, et al., 2020; Zalta et al., 2018) with specific focus on the home environment. Veterans were not accepted to the vITP if they reported substance use that would require medical attention; if they were actively suicidal or homicidal or had been in the past 3 months; engaged in severe non-suicidal self-injury in the past 3 months; experienced mental health symptoms that would prevent them from fully participating in treatment (e.g., mania, psychosis, severe dissociation); or if their home environment was not conducive to trauma-focused therapy (e.g., if they were living with a perpetrator).

Regulatory and professional restrictions prevented the program from offering services to veterans who resided outside of the state in which the physical program was housed. The vITP was initially offered to 19 veterans, of which 7 accepted and attended the program at the time of this writing. Although reasons for not participating in the vITP were not systematically assessed, some veterans reported that they did not have adequate technology to participate; some were currently too overwhelmed with other stressors relating to COVID-19; some preferred in-person treatment due to the perception of receiving higher quality care when attending in person; and others were inappropriate due to a high degree of substance use that may have been difficult to safely manage virtually.

Intake clinicians followed the standard practices to assess participants’ risk level that are normally conducted during in-person care (e.g., assessing for harm to self/others). In addition, special consideration was given to practices that would help ensure the safety of clients engaging in virtual intensive PTSD treatment programming which were based on best practice recommendations for providing telehealth services (American Psychological Association, n.d.). With most patients participating in the vITP from their homes, it was important to ensure the patients’ homes provided a safe environment in which they could participate in therapy. Intake clinicians screened all
veterans interested in the vITP for possession of and access to weapons. In cases where clinicians had safety concerns due to weapons in the veterans’ homes, a collaborative plan was developed with the veterans to safely remove weapons from the home for the duration of the vITP. Intake clinicians also screened veterans for interpersonal violence in the home. If a veteran screened positive for current intimate partner violence, the clinician would defer PTSD treatment and focus on establishing immediate safety as well as providing the veteran with resources. Last, in addition to the standard substance use history recorded during the intake evaluation, veterans were asked about the substance use of others in their home, as this could increase the risk for the veterans’ safety in some cases.

As well as the safety screen described above, intake clinicians also confirmed the following information for each veteran: home address, home phone number, emergency contact, and emergency contact’s phone number. Program staff obtained contact information for local police departments, local hospitals, and local Veterans Affairs Medical Center, where applicable, for each veteran prior to initiating vITP care, so this information was readily available in case of emergency. During the mandatory orientation session in the beginning of the vITP, clinical staff reviewed the procedure for risk management with all participants. Veterans were informed that in case of a safety concern during the vITP staff would first call the patient, followed by their emergency contact. As a last resort, veterans were informed that clinicians would request a well-being check from the local police department. For veterans with risk concerns, individual CPT providers collaboratively developed a crisis response plan with the veteran prior to the start of the vITP.

### Teletherapy Platform

Identifying an appropriate telehealth platform is an important first step before delivering treatment virtually. As described above, all therapy services in the vITP were delivered through VIDYO Connect (Vidyo Connect, n.d.), a videoconferencing platform implemented and widely utilized before COVID-19 by the organization where the vITP is housed. There were four critical components in deciding on an appropriate teletherapy platform. First, the teletherapy platform had to be HIPAA compliant and provide secure, password-protected session access. Second, the telehealth platform needed to be easily accessible via multiple devices (i.e., computer, tablet, phone), as clients may wish to connect from a range of devices due to preference or accessibility. Third, the platform needed to enable both group and individual sessions to accommodate all components of the vITP. Separate virtual treatment rooms were created for individual therapy and group sessions. Group providers and veterans had access to the group rooms to come and go as needed for sessions throughout the day, similar to providers entering and leaving a group room during in-person treatment. Fourth, the platform needed to have the capability to share the screen of both the therapist and the veteran. This function enabled the therapists, group facilitators, and veterans to look at and discuss therapy worksheets together and for the therapist to be able to give real-time feedback on notes the client was taking. The selected telehealth platform also included a whiteboard function that allowed the therapist or participant to write or draw images to illustrate therapy concepts (e.g., draw a picture of the cognitive model). Screen share and whiteboard functions turned out to be essential in reviewing concepts in sessions and providing feedback on homework assignments the clients completed.

### Case Descriptions

In the following section, we briefly illustrate how virtual intensive PTSD treatment can work for individuals with different presenting concerns and life circumstances using the examples of two veterans who participated in the vITP. Permission to present these case examples were obtained from both veterans and authors disclosed any conflicts of interests to the veterans. Both veterans completed and were fully engaged in the optional components of the program.

#### Veteran 1

Veteran 1 identified as a non-Hispanic Caucasian male who is in his 40s and lived locally in Illinois with his wife and children. Veteran 1 presented with a diagnosis of PTSD, Major Depressive Disorder, and a history of Cannabis Use Disorder and Alcohol Use Disorder. The index trauma he focused on during treatment was a childhood event. Prior to beginning the vITP, Veteran 1 worked with his intake clinician on reducing cannabis use and committed to abstaining during the program. He was able to abstain during the first week but reported cannabis use over the weekend and a few times during the second week of the vITP. This was Veteran 1’s first full course of a trauma-focused therapy.

Veteran 1 utilized all 18 individual CPT sessions. However, two sessions focused on DBT-specific skills and crisis management due to emotional dysregulation and an unwillingness to do CPT at the end of the first week. Veteran 1 had a private location in his home from where he was able to attend the vITP and was
Veteran 1 expressed concerns at the outset of treatment about handling distressing emotions after sessions and returning to his home life. To mitigate these concerns, coping skills the veteran already possessed were identified; the veteran created the plan to go for a short walk after every individual therapy session. Veteran 1 initially endorsed concerns with using a telehealth platform for sessions partly out of concern that he would not be technologically proficient enough, but he did not encounter major issues during individual therapy. Veteran 1 chose to complete assignments by handwriting on a notepad. Following sessions, Veteran 1’s provider sent secure messages to the veteran reminding him of homework assignments and providing him with links to videos that further explained each worksheet and the themes of safety, trust, power/control, esteem, and intimacy.

As can be seen in Figures 2 and 3, Veteran 1 showed a slow, steady decline in PTSD symptoms over the course of treatment. Over the course of the 2-week vITP, Veteran 1 reported a 19-point reduction in PTSD symptoms (PCL-5) and a 1-point reduction in depressive symptoms (PHQ-9). He took to the cognitive model quickly and was able to engage in flexible thinking and identifying evidence against his stuck points. Veteran 1 expressed he had never previously disclosed some of the details of his trauma and was also able to express natural emotions related to grief and sadness. His major point of progress was a reduction in self-blame and responsibility related to the index trauma. Over the course of treatment, he developed a more balanced view of himself by challenging stuck points related to self-esteem, and at the end of the vITP, he was able to identify a list of future oriented goals. Veteran 1 stated that he found individual therapy to be the most helpful component of the program because he appreciated developing another way of looking at his trauma. He also said he found it helpful to connect with another veteran. Because of Veteran 1’s persistently elevated depression, he was strongly encouraged to explore medication management and continued outpatient therapy following the conclusion of the vITP to address low mood, negative core beliefs, and interpersonal issues.

**Veteran 2**

Veteran 2 identified as a Hispanic male, who was recently divorced and in his 30s. Veteran 2 lived alone and presented with a diagnosis of PTSD, Major Depressive Disorder, Generalized Anxiety Disorder, mild Alcohol Use Disorder, and mild Cannabis Use Disorder. Veteran 2 had a medical cannabis card and used cannabis regularly to manage PTSD symptoms. Throughout the course of the vITP Veteran 2 reported a few occasions where he had a couple of alcoholic drinks. Veteran 2 also used cannabis in the evening after the vITP sessions and on weekends but never during programming, shortly before programming, or while doing his CPT homework. Additional stressors Veteran 2 encountered during the vITP were completing final exams for school and managing conflict with his ex-spouse, whom he recently divorced. Veteran 2 had started CPT in the past on an outpatient basis but had never been able to finish the protocol due current life stressors causing interruptions. Veteran 2 was in graduate school and had previously been participating in

---

**Figure 2.** PTSD Symptoms by Treatment Day in the 2-Week Virtual Intensive PTSD Treatment Program
in therapy via telehealth and did not report concerns or discomfort with using a telehealth platform.

Veteran 2 participated in all 18 individual CPT sessions. Two of these sessions focused on present-focused crisis management regarding the aforementioned stressors. These crisis management sessions still utilized a CPT lens, focused on identifying stuck points associated with each situation, and did not significantly interrupt the protocol. Veteran 2 worked through a combat-based index trauma. Aside from the two crisis management sessions, Veteran 2 followed a standard course of CPT. The additional sessions provided flexibility towards the end of the protocol to shift focus to a second event surrounding circumstances of his discharge, which led to feelings of self-blame and institutional betrayal. By the end of the vITP, Veteran 2 reported significantly reduced self-blame and anger and was able to think about the events in more balanced ways. Secondary to these shifts in self-blame, Veteran 2 reported an increase in self-esteem and pride. Veteran 2 had minimal difficulty with technology. On several occasions the connection was interrupted due to poor internet connectivity, which led to 5-minute interruptions at most before being able to reconnect. Veteran 2 reported finding the screen sharing and whiteboard functions of the teletherapy platform to be particularly useful because he identified as a visual learner. Veteran 2 chose to handwrite all homework in a personal notebook.

As shown in Figures 2 and 3, Veteran 2 reported a 48-point reduction in PTSD symptoms (PCL-5) and a 16-point reduction in depression symptoms (PHQ-9), respectively. As can be seen in Figure 2, a major point reduction did not occur until halfway through the second week. Through his prior experience with CPT, Veteran 2 grasped concepts quickly. Although Veteran 2 experienced a rapid shift in cognitions, emotional changes occurred later. He spent the majority of the first week challenging several assimilated stuck points. During Week 2 (Session 11), Veteran 2 began to challenge overaccommodated stuck points and form alternative present-focused beliefs about being able to trust in himself, having made good decisions in line with his values and goals, and being worthy of love and respect. Following the successful challenging of overaccommodated stuck points, Veteran 2’s scores began to decline. He reported not only significant changes in his perspective on the trauma but also who he was as a person. Veteran 2 said that he found the program to be life changing and that individual therapy was the most helpful component. Similar to Veteran 1, he found connecting with a fellow veteran helpful, especially with challenging stuck points related to anticipating judgment from others. Veteran 2 expressed gratitude that a virtual option for intensive treatment was available, as he would not have been available to attend in-person, even if the pandemic was not occurring. Veteran was encouraged to resume outpatient therapy with his current provider (via telehealth for the time being) to continue focusing on esteem-related stuck points and maintain treatment gains.

**Therapist Perspective**

As telehealth care continues to be utilized more given ongoing uncertainty related to the COVID-19 pandemic, it is important to be able to address provi-
der discomfort and concerns. This may be especially pertinent when delivering trauma-focused treatments in intensive formats virtually. To mitigate these concerns, all clinicians were trained in the telehealth platform and practiced using the platform to become comfortable with the technology prior to the start of the first vITP. Given the rapid move to telehealth care in response to COVID-19, there was limited time for extensive training of providers. The American Psychological Association guidelines for telehealth were also shared with all providers to assist in the transition to telehealth care, and providers were encouraged to engage in additional trainings related to telehealth competencies. Detailed below are perspectives from two seasoned therapists, who, despite their extensive experience delivering intensive CPT, still had some initial concerns related to telehealth care. Both therapists shared how they managed these hesitations. Overall, the course of CPT provided by both therapists closely matched that of standard in person CPT. Due to the frequency of CPT sessions in the ITP, veterans were asked to complete three worksheets before the next session rather than the traditional one worksheet per day until the next session. This homework assignment modification is also used in other intensively delivered formats (Held, Klassen, Small, et al., 2020).

Therapist 1 was a CPT certified, licensed clinical psychologist with almost 10 years of experience working with veterans with PTSD in addition to about 4 years of experience providing CPT in outpatient and intensive treatment settings. Therapist 2 was a CPT certified, licensed clinical social worker with 6 years of experience working with veterans and almost 4 years of experience delivering CPT in both outpatient and intensive treatment settings. Both therapists had previous experience providing intake biopsychosocial assessments, diagnostic assessments, and outpatient therapy over telehealth platforms. Both therapists had also taken trainings in providing therapy via telehealth prior to their involvement in the vITP. However, this was their first experience providing a course of CPT or an intensive level of treatment over telehealth.

Therapist 1 reported some initial hesitancy about utilizing a telehealth platform for intensive trauma-focused treatment, especially with a client who expressed low frustration tolerance, anger issues, and his own concerns about comfort with technology. After every session, Therapist 1 sent Veteran 1 links to online CPT educational videos for further review of the worksheets and material. Therapist 2 also reported some concerns as the specific telehealth platform was new and there was little time to prepare given the urgent response to COVID-19. While Therapist 2’s primary concern was technology related, there was also some concern over how a telehealth platform could impact relational and interpersonal dynamics. Relational concerns included not being able to check on the veteran physically if they did not attend a session or were in distress, less control over the environment to assure safety, and possible barriers to building rapport. Both therapists verbally walked through completed worksheets with veterans, as they could not visually review them as they might in an in-person session. They also utilized screen sharing and electronic whiteboard functions to review worksheets, in replacement of office whiteboards which would normally be used for in-person sessions.

After the program, both therapists endorsed being pleasantly surprised by the ease of use and lack of technological disruptions related to the virtual platform. Therapist 1 noted it felt different expressing empathy and connection when the veteran was distressed, and struggled with prolonged silences during the virtual sessions. She noted that having seen this veteran in person prior in the outpatient clinic and having previously established rapport allowed for a relatively seamless transition to telehealth care. Therapist 2 had never met her assigned veteran in person but reported not experiencing any of the initial relational concerns and felt she was able to make just as strong of a connection over video. Despite initial hesitations, both therapists had positive experiences utilizing telehealth for this vITP and were encouraged by how effectively treatment could be delivered through this format.

Group providers reported similar surprisingly positive experiences associated with delivering components of the 2-week vITP. Unlike initially feared, group providers noted that the cohesion between the veterans appeared to be surprisingly strong, with veterans supporting one another and providing valuable feedback. Overall, vITP groups have been small (2–3 veterans total) and thus have functioned similar to in-person groups, and even provided opportunity for productive crosstalk, which may not have been possible virtually with a larger cohort. Perhaps most challenging was the lack of tools and equipment some of the veterans had in their homes for groups like yoga or art therapy. Knowing that these challenges may arise, group providers planned ahead for activities that could be done with limited and varied availability of tools and equipment. Aside from occasional connection issues, the group providers did not report any significant issues with conducting groups virtually.

Conclusion

In this paper, we have described one way to virtually deliver intensive, evidence-based PTSD treatment dur-
ing social distancing and shelter-in-place orders as a result of the COVID-19 pandemic. We have described several considerations that went into the development of virtual programming, specific program design, patient selection, therapist considerations, and illustrated the treatment process using two case examples. Although additional, larger scale research is needed, the two case examples illustrated above suggest virtual intensive evidence-based PTSD treatment can be feasible, well-tolerated, and produce large symptom reductions. Our findings appear to be comparable to results seen in in-person treatment; however, given the preliminary nature, more systematic research should be conducted. This is further supported by anecdotal evidence from additional veterans who have completed the 2-week vITP since its inception. Intensive virtual models may have the potential to increase access to evidence-based PTSD treatment during restrictions associated with COVID-19 and beyond for veterans and other affected populations.

In the medium-term, virtual treatment delivery has the potential to significantly reduce barriers for individuals who are seeking effective brief interventions but are unable to attend in-person programs. The virtual treatment format is also important to consider for programs that are designed around various group components, which are less feasible during infectious disease outbreaks and pandemics that prevent groups of individuals coming together. It is our hope that the present article provides important information, design considerations, and potential challenges to think through prior to implementing a virtual intensive PTSD program.

Future Directions

Some veterans who were approached about the 2-week virtual ITP had significant reservations about teletherapy. For example, several of these veterans expressed concern that the virtual format would not be as effective as in-person care. Similar to research on traditionally delivered evidence-based treatments, we are able to provide preliminary support for the effectiveness of virtually delivered intensive PTSD treatment. Although the virtual format may not be effective for all individuals, it can be effective for some. In addition to systematic research on virtually delivered intensive PTSD treatments, additional efforts are needed to dispel both veterans’ and providers’ misperceptions about virtual care and to promote the effectiveness of virtual treatment. Next steps may also include assessing if there are differences in outcomes for individuals who complete the vITP with only CPT compared to those who complete a vITP with supplemental components. Last, potential risks while conducting virtual care, such as barriers to helping out-of-state veterans who are in imminent crisis, must not be neglected.

Several aspects of delivering intensive PTSD treatment virtually require additional attention from policymakers and payors. For example, due to current mental health licensure restrictions, nonfederal organizations offering virtual intensive treatment models (and virtual therapy in general) are only able to offer services in a limited number of states. This limits the number of individuals who can benefit from these intensive services virtually, despite the modality technically being designed to reach a much broader audience than in-person care. Additionally, there are currently a number of limitations associated with reimbursement of teletherapy services. These limitations are even greater for more comprehensive models of care, such as intensive treatment programs. Without creating appropriate reimbursement models for intensive treatments that are delivered virtually, sustainability will remain a concern. Furthermore, interstate reciprocity of delivering care is needed to allow greater access to specialized treatment.

References

American Psychological Association. (n.d.). Guidelines for the Practice of Telepsychology. https://www.Apa.Org. Retrieved June 8, 2020, from https://www.apa.org/practice/guidelines/telepsychology.
Beidel, D. C., Frueh, B. C., Neer, S. M., Bowers, C. A., Trachik, B., Uhde, T. W., & Grubaugh, A. (2019). Trauma management therapy with virtual-reality augmented exposure therapy for combat-related PTSD: A randomized controlled trial. Journal of Anxiety Disorders, 61, 64–74. https://doi.org/10.1016/j.janxdis.2017.08.005.
Beidel, D. C., Frueh, B. C., Neer, S. M., & Lejuez, C. W. (2017). The efficacy of Trauma Management Therapy: A controlled pilot investigation of a three-week intensive outpatient program for combat-related PTSD. Journal of Anxiety Disorders, 50, 23–32. https://doi.org/10.1016/j.janxdis.2017.05.001.
Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The posttraumatic stress disorder checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation: posttraumatic stress disorder checklist for DSM-5. Journal of Traumatic Stress, 28(6), 489–498. https://doi.org/10.1002/jts.22059.
Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (2016). Psychometric properties of the PTSD checklist for diagnostic and statistical manual of mental disorders-fifth edition (PCL-5) in veterans. Psychological Assessment, 28(11), 1379–1391. https://doi.org/10.1037/pas0000254.
Bryan, C. J., Leifker, F. R., Rozek, D. C., Bryan, A. O., Reynolds, M. L., Oakley, D. N., & Roberge, E. (2018). Journal of Clinical Psychology, 74(12), 2070–2081. https://doi.org/10.1002/jclp.22651.
Centers for Medicare & Medicaid Services. (2020). Physicians and other clinicians: CMS flexibilities to fight COVID-19. https://www.cms.gov/files/document/covid-19-physicians-and-practitioners.pdf.
Foa, E. B., McLean, C. P., Zang, V., Rosenfield, D., Yadin, E., Yarvis, J. S., Mintz, J., Young-McCaughan, S., Borah, E. V., Donndaville, K. A., Fina, B. A., Hall-Clark, B. N., Lichner, T., Litz, B. T., Roache, J., Wright, E. C., & Peterson, A. L. for the STRONG STAR Consortium. (2018). Effect of prolonged exposure therapy delivered over 2 Weeks vs 8 Weeks vs present-centered therapy on PTSD symptom severity in military personnel: A randomized clinical trial. *Journal of the American Medical Association, 319*(4), 354. https://doi.org/10.1001/jama.2017.21242.

Goetter, E. M., Blackburn, A. M., Bui, E., Laifer, L. M., & Simon, N. (2019). Veterans’ prospective attitudes about mental health treatment using telehealth. *Journal of Psychosocial Nursing and Mental Health Services, 57*(9), 38–43. https://doi.org/10.1086/02793665-20190531-02.

Gros, D. F., Morland, L. A., Greene, C. J., Acierno, R., Strachan, M., Egede, L. E., Tuerk, P. W., Myrick, H., & Fruch, B. C. (2013). Delivery of evidence-based psychotherapy via video telehealth. *Journal of Psychopathology and Behavioral Assessment, 35*(4), 506–521. https://doi.org/10.1007/s10862-013-9563-4.

Harvey, M. M., Rauch, S. A. M., Zalta, A. K., Sornberger, J., Pollack, M. H., Rothbaum, B. O., Laifer, L. M., & Simon, N. M. (2017). Intensive treatment models to address posttraumatic stress among Post-9/11 warriors: The warrior care network. *FOCET, 15*(4), 378–383. https://doi.org/10.1176/appi.focus.20170092.

Held, P., Bagley, J. M., Klassen, B. J., & Pollack, M. H. (2019). Intensively delivered cognitive-behavioral therapies: An overview of a promising treatment delivery format for PTSD and other mental health disorders. *Psychiatric Annals, 49*(8), 339–342. https://doi.org/10.1080/00485713.20190711-01.

Held, P., Klassen, B. J., Boley, R. A., Wiltsie Stirman, S., Smith, D. L., Brennan, M. B., Van Horn, R., Pollack, M. H., Karnik, N. S., & Zalta, A. K. (2020). Feasibility of a 3-week intensive treatment program for service members and veterans with PTSD. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(4), 422–430. https://doi.org/10.1037/tra0000485.

Held, P., Klassen, B. J., Small, C. F., Brennan, M. B., Van Horn, R., Karnik, N. S., Pollack, M. H., & Zalta, A. K. (2020). A case report of cognitive processing therapy delivered over a single week. *Cognitive and Behavioral Practice, 27*(2), 126–135. https://doi.org/10.1016/j.cbpra.2019.07.006.

Held, P., Zalta, A. K., Smith, Dale L., Bagley, Jenna M., Steigerwald, Victoria L., Boley, Randy A., Miller, Michelle L., Brennan, Michael B., Van Horn, Rebecca, & Pollack, Mark H. (2020). Maintenance of treatment gains up to 12-months following a three-week cognitive processing therapy-based intensive PTSD treatment program for veterans. https://doi.org/10.1080/20008198.2020.1789324.

Kehle-Forbes, S. M., Meis, L. A., Spooner, M. R., & Polusny, M. A. (2016). Treatment initiation and dropout from prolonged exposure and cognitive processing therapy in a VA outpatient clinic. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(1), 107–114. https://doi.org/10.1037/trt0000065.

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009060.x.

Linehan, M. (2015). *DBT skills training manual (2nd ed.)*. The Guilford Press.

Liu, L., Thorp, S. R., Moreno, L., Wells, S. Y., Glassman, L. H., Busch, A. C., Zamora, T., Rodgers, C. S., Allard, C. B., Morland, L. A., & Agha, Z. (2019). Videoconferencing psychotherapy for veterans with PTSD: Results from a randomized controlled non-inferiority trial. *Journal of Telemedicine and Telecare*. https://doi.org/10.1177/1357633X19853947 1357633X1985394.

Lofgreen, A. M., Tirone, V., Carroll, K. K., Rufa, A. K., Smith, D. L., Bagley, J., Zalta, A. K., Brennan, M. B., Van Horn, R., Pollack, M. H., & Held, P. (2020). Improving outcomes for a 3-week intensive treatment program for posttraumatic stress disorder in survivors of military sexual trauma. *Journal of Affective Disorders, 269*, 134–140. https://doi.org/10.1016/j.jad.2020.03.036.

Miller, M. L., Bagley, J. M., Normand, P., Brennan, M. B., Van Horn, R., Pollack, M. H., & Held, P. (2020). Increasing mindfulness skills of veterans with PTSD through daily mindfulness training incorporated into an intensive treatment program. *Mindfulness, 11*(4), 964–974. https://doi.org/10.1007/s12671-020-01326-3.

Miller, W. R., & Rollnick, S. (2013). *Motivational interviewing: Helping people change* (3rd ed.). Guilford Press.

Moring, J. C., Donndaville, K. A., Fina, B. A., Hassija, C., Chard, K., Monson, C., LoSavio, S. T., Wells, S. Y., Morland, L. A., Kaysen, D., Galovski, T. E., & Resick, P. A. (2020). Cognitive processing therapy for posttraumatic stress disorder via telehealth: practical considerations during the COVID-19 pandemic. *Journal of Traumatic Stress*. https://doi.org/10.1002/jts.22544.

Morland, L. A., Wells, S. Y., Glassman, L. H., Greene, C. J., Hoffman, J. E., & Rosen, C. S. (2020). Advances in PTSD treatment delivery: review of findings and clinical considerations for the use of Telehealth interventions for PTSD. *Current Treatment Options in Psychiatry*. https://doi.org/10.1007/s40501-020-00215-x.

Price, M., & Gros, D. F. (2014). Examination of prior experience with Telehealth and comfort with Telehealth technology as a moderator of treatment response for PTSD and depression in Veterans. *The International Journal of Psychiatry in Medicine*. https://doi.org/10.2190/PM.48.1.e.

Ramchand, R., Harrell, M. C., Berglass, N., & Lauck, M. (2020). Projecting the economic, social, and mental health needs of America’s Veterans. https://bobwoodrufffoundation.org/wp-content/uploads/2020/04/BWF_WhitePaper-COVID19-5.0-Draft.pdf.

Resick, P. A., Monson, C. M., & Chard, K. M. (2017). *Cognitive processing therapy for PTSD: A comprehensive manual*. Guilford Press.

Sayer, N. A., Rosen, C. S., Bernardy, N. C., Cook, J. M., Orazem, R. J., Chard, K. M., Mohr, D. C., Kehle-Forbes, S. M., Eftekhar, A., Crowley, J., Ruzek, J. I., Smith, B. N., & Schnurr, P. P. (2017). Context matters: reach of evidence-based psychotherapies for PTSD in the Veterans health administration. *Administration and Policy in Mental Health, 44*(6), 904–918. https://doi.org/10.1007/s10488-017-0809-y.

Stecker, T., Shiner, B., Watts, B. V., Jones, M., & Conner, K. R. (2013). Treatment-seeking barriers for veterans of the Iraq and Afghanistan conflicts who screen positive for PTSD. *Psychiatric Services (Washington, D.C.), 64*(3), 280–283. https://doi.org/10.1176/appi.ps.001372012.

Vidyo Connect. (n.d.). Vidyo. Retrieved June 9, 2020, from https://www.vidyo.com/.

Weathers, F. W., Bohm, M. J., Lee, D. J., Sloan, D. M., Schnurr, P. P., Kaloupek, D. G., Keane, T. M., & Marx, B. P. (2018). The clinician-administered PTSD scale for DSM–5 (CAPS–5): Development and initial psychometric evaluation in military veterans. *Psychological Assessment, 30*(3), 383–395. https://doi.org/10.1037/pas0000486.

Zalta, A. K., Held, P., Smith, D. L., Klassen, B. J., Lofgreen, A. M., Normand, P. S., Brennan, M. B., Rydberg, T. S., Boley, R. A., Pollack, M. H., & Karnik, N. S. (2018). Evaluating patterns and predictors of symptom change during a three-week intensive outpatient treatment for veterans with PTSD. *BMC Psychiatry, 18*(1), 242. https://doi.org/10.1186/s12888-018-1816-6.
We thank the Wounded Warrior Project for their support of the Warrior Care Network and the resulting research. We would also like to thank the participating veterans and their families, as well as acknowledge the administrators, research assistants, and clinicians at the Road Home Program. Philip Held is supported by a career development award from the National Institute of Health’s National Center for Advancing Translational Sciences (5KL2TR002987-04) and receives grant support from Wounded Warrior Project and the Boeing Company. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health, Wounded Warrior Project, or any other funding agency.

All other authors declare that they have no competing interests.

Address correspondence to Philip Held, Department of Psychiatry, 1645 W. Jackson Blvd., Suite 602, Rush University Medical Center, Chicago, IL 60612, United States. e-mail: Philip_Held@rush.edu.

Received: June 18, 2020
Accepted: September 18, 2020
Available online 16 October 2020