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# Interpersonal Psychotherapy of Posttraumatic Stress Disorder for Veterans and Family Members: An Open Trial

**Alison Pickover, PhD**[a,b], **Ari Lowell, PhD**[a,b], **Amit Lazarov, PhD**[b,c], **Andrea Lopez-Yianilos, PsyD**[a], **Arturo Sanchez-Lacay, MD, MPH**[a,b], **Matthew Ryba, BS**[a,d], **Sara Such, BA**[a], **Shay Arnon, BA**[a], **Doron Amsalem, MD**[a,b], **Yuval Neria, PhD**[a,b], **John C. Markowitz, MD**[a,b]

[a]New York State Psychiatric Institute, NY

[b]Department of Psychiatry, Columbia University Irving Medical Center, NY

[c]School of Psychological Sciences, Tel Aviv University, Israel

[d]Department of Psychiatry, Weill-Cornell Medical Center, NY

## Abstract

**Objective:** Military service members and veterans have high rates of posttraumatic stress disorder (PTSD), as do military family members. Exposure-based, cognitive-behavioral approaches have received ample research; other PTSD therapies require further empirical attention. Interpersonal psychotherapy (IPT), targeting affective awareness, life circumstances, and social support, has demonstrated efficacy for civilians with PTSD but awaits rigorous testing in military personnel: only two small military pilot studies and two case reports have been published. Military family members have received minimal clinical outcomes research. Addressing these gaps, this open trial is the first to examine IPT for PTSD in veterans, service members, and family members, including a subsample of patients with comorbid PTSD/depression.

**Methods:** Fifty U.S. military service members, veterans, and family members were offered 14 sessions of IPT for PTSD. Psychosis, bipolar disorder, moderate or greater substance use disorder, and high suicide risk were exclusion criteria. PTSD and depressive symptoms were assessed at baseline, mid-treatment, post-treatment, and three-month follow-up.

**Results:** Clinician-assessed PTSD (Clinician-Administered PTSD Scale) and depression (Hamilton Depression scale) symptoms decreased over time in the full sample and the comorbid PTSD/depression subset ($ps<.05$). Service members, veterans, and family members had similar treatment responses.

**Conclusions:** Patients who received IPT exhibited reductions in PTSD and depressive symptoms over time. These open trial findings provide preliminary support for the utility of IPT

***Corresponding author:*** John C. Markowitz, M.D., Department of Psychiatry, Columbia University Irving Medical Center/New York State Psychiatric Institute, New York, NY, Contact: jcm42@cumc.columbia.edu.

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for PTSD for veterans and family members. This, the largest IPT trial to date for PTSD in military patients, also bolsters scant literature on treating military family members.

### Keywords

Interpersonal therapy; Veterans; PTSD; Trauma; Treatment; Family members

## INTRODUCTION

American military veterans and service members face elevated risk for trauma exposure and psychiatric illness. An estimated 21–41% of veterans returning from recent conflicts have posttraumatic stress disorder (PTSD), and 7–15% suffer from syndromal depression.[1] The combination of PTSD and major depression is particularly difficult to treat. Compounding risk for poor outcomes, veterans report adverse experiences preceding and following deployment.[2,3] Beyond the personal ramifications of PTSD and depression for veterans and service members, these disorders affect military families; consequences include marital and parental dissatisfaction, disrupted child-parent relationships, caregiver burden, and domestic violence.[4,5] These issues, in addition to elevated rates of trauma exposure unrelated to military service among military spouses, help account for high rates of PTSD and depression among military spouses, family members, and caregivers.[6–8] These manifold problems affecting veterans, servicemembers, and military families require responsive interventions that can alleviate PTSD and depressive symptoms. This report describes an open trial of interpersonal psychotherapy (IPT) for PTSD treating military service members, veterans, and family members, for PTSD with and without comorbid depressive disorder.

### Available Treatment for PTSD

Veterans Affairs (VA)/Department of Defense (DoD) guidelines primarily recommend exposure therapies for PTSD, including cognitive processing therapy and prolonged exposure (PE).[9] Although research supporting exposure therapy is extensive,[10,11] the limited range of available treatments raises concerns. The very success of exposure therapies has resulted in insufficient study and clinical dissemination of other approaches. No treatment benefits everyone; non-response and dropout occur even in the most robust interventions. Moreover, patients are more likely to improve when given their preferred treatment.[12,13] Many clinicians and patients avoid exposure-based interventions, which ask traumatized patients to confront their worst fears. Dropout can be high, generally exceeding 20%,[14,15] and while no direct comparisons have been conducted, outcomes among veterans appear generally less favorable than among civilians.[16–18] Hence alternative treatments require investigation. Interventions targeting PTSD among military family members also need evaluation, as virtually no research has assessed their mental health treatment despite well-recognized elevations in their psychopathology.[7]

### IPT for PTSD

IPT, a non-exposure, non-cognitive-behavioral therapy (CBT) approach, focuses on affect, life circumstances, and interpersonal relationships: on the interpersonal consequences of trauma, rather than on the trauma itself, associated distorted cognitions, or behavioral

habituation.[19] IPT seeks to resolve interpersonal conflicts and mobilize social support. No homework is assigned; instead, IPT encourages self-agency and uses its time limit to press patients to act in interpersonal situations.

An advantage of IPT over CBT for military and family populations is its targeted focus on bolstering social engagement and support, addressing feelings of isolation and estrangement, to reduce psychopathology.[19,20] Military veterans and families often lack social support and feel isolated and estranged from civilians lacking military service history.[21] Relocations and deployment cycles compound their social isolation and disrupt community support.[5,8] Such isolation, disconnection, and absence of social support contribute to adverse physical and mental health and the maintenance of PTSD and depression.[22–24] IPT and other research suggests that bolstering social support plays an important role in relieving these symptoms.[19,25]

IPT has established efficacy in treating major depressive disorder,[26,27] and numerous studies support its efficacy across other disorders and treatment populations.[28] IPT for PTSD performed overall as well as PE in a randomized controlled civilian trial[29] and better than PE for patients with sexual trauma or comorbid major depressive disorder.[29,30] (Co-occurrence of PTSD/major depressive disorder is roughly 50%.[31]) Patients also preferred IPT to PE.[13] The VA has disseminated IPT to treat major depressive disorder,[32] and IPT appears in VA/DoD PTSD and depression treatment guidelines;[9] however, the IPT research literature on veterans with either disorder comprises only two non-VA case reports[33,34] and two small pilot studies of veterans with PTSD.[35,36] No prior studies of any individual psychotherapy exist for military family members.

## Present Study

We prospectively conducted an open trial of IPT for PTSD delivered to service members, veterans, and military family members at a university-based Military Family Wellness Center (MFWC).[37] Independent evaluators assessed treatment tolerability and symptom change mid-treatment, post-treatment, and at 3-month follow-up. Exploratory analyses assessed differences in symptom change between veterans/service members and family members. We hypothesized that IPT would be well-tolerated and that most patients would experience PTSD and depressive symptom reductions with treatment. We recognized that our small sample ($N$=50) would have limited statistical power to show outcome differences between military and family member patients. Nonetheless, as military patients are thought to have poorer outcomes than civilians in PTSD treatment, and no research has directly compared them, we explored between-group outcomes. We further conducted sensitivity analyses to examine: 1) symptom change among the subset of patients with comorbid PTSD and depression; 2) symptom change controlling for pharmacotherapy use; and 3) symptom change controlling for treatment delivery modality (in-person versus via tele-therapy).

# METHODS

## Participants

Fifty adult (age ≥18) U.S. military service members and veterans ($n$=35), and individuals with close familial connections to a service member or veteran ("family members," $N$=15) opted to enroll in IPT treatment at the MFWC between January 2016 and October 2019. Services were provided gratis. Patients had a primary diagnosis of PTSD and included those who did not qualify for or avoided VA care, or sought additional treatment. Exclusion criteria included history of psychotic disorder, current unstable bipolar disorder, moderate or greater substance use disorder, and high suicide risk (plan and intent). Patients in the comorbid PTSD/syndromal depression subset met diagnostic criteria for major depressive disorder and/or persistent depressive disorder (henceforth "depression").

## Measures

Most patients ($N$=38) were administered the Structured Clinical Interview for *DSM-5*-Research Version (SCID-5);[38] the remainder ($N$=12) instead received the MINI International Neuropsychiatric Interview for *DSM-IV* (MINI)[39] prior to a clinic protocol change. The Clinician-Administered PTSD Scale for *DSM-5* (CAPS-5)[40] assessed PTSD. Possible scores range from 0 to 80, with higher scores indicating more severe PTSD symptomatology. Depressive severity was assessed by clinician-administered Hamilton Depression Rating Scale, 17-item version (HAM-D).[41] Possible scores range from 0 to 54, with higher scores indicating more severe depression. Interclass correlations indicated excellent interrater CAPS-5 agreement ($ICC$=0.99) and acceptable HAM-D agreement ($ICC$=0.75).

## Procedures

Patients underwent a 30-minute phone screen by a research assistant, then in-person assessment by a licensed psychologist, postdoctoral fellow, or psychology extern. Assessment included clinical interview and standardized clinician-administered and self-report measures. After clinical team review, patients were assigned a therapist. Clinician and patient together selected the treatment. Patients were always offered multiple treatment options, typically CBT, PE, and IPT, with balanced descriptions of each treatment and its research support.[13] Most opted for IPT. An Institutional Review Board approved all procedures. Patients provided informed written consent before initiating treatment.

IPT for PTSD comprised 14 50-minute sessions. Eight therapists delivered IPT following the manual,[19] with weekly supervision and review of videotaped sessions by its author; no other formal adherence ratings were conducted. Therapists included one early-career licensed psychologist, four postdoctoral fellows, two psychology externs, and a licensed social worker. Geographically remote patients or those having transportation difficulties were offered treatment via HIPAA-compliant video conferencing; ten (20%) patients received partial or full tele-therapy. When therapy was delivered remotely, research assistants aided patients in setting up the video conferencing software before the first remote therapy session, and thereafter as needed for technical support. In-person and remote treatment protocols were otherwise identical. Assessments were repeated at midpoint, post-treatment, and 3-month follow-up.

Thirty patients (60%) received concurrent pharmacotherapy. Most were already receiving long-established pharmacotherapy; a MFWC psychiatrist modified the regimen or prescribed new medication for ten (20%). The modal medication was a serotonin reuptake inhibitor.

### Data Analytic Plan

Distributions contained no outliers. Generalized estimating equation (GEE; SPSS v25) analyses with unstructured correlation matrices, which use all available data points and can account for correlated, within-subject repeated measures data,[42] were used to examine PTSD and depression symptom change over time. Number of assessments completed (and thus included in main GEE analyses) at baseline, midpoint, posttreatment, and three-month follow-up were 50, 40, 36, and 26. We examined main effects of time (across time points), status (veteran/service member versus family member), and timeXstatus interaction effects to detect whether symptom change differed between veterans/service members and family members. In *post hoc* sensitivity analyses testing the robustness of our main findings, we re-ran analyses on a subset of patients with comorbid PTSD and depression (number of assessments completed at each timepoint were 37, 30, 27, and 21). Sensitivity analyses also included GEE models with tele-therapy and MFWC pharmacotherapy added as covariates; these analyses were run for the full sample and for the comorbid subsample.

## RESULTS

### Patient Characteristics

The 50 patients, of mean age 43.0±13.0 years, were 76% male ($N$=38) and had diverse racial/ethnic backgrounds and trauma histories (Table 1). Twenty-four (48%) were veterans, five were active duty service members (10%), five served in the Reserves (10%), one was a military contractor (2%), and 15 were family members (30%). Family members comprised eight children, one step-child, two spouses, one ex-spouse, one sibling, one grandchild, and one close friend of a veteran. Among veterans/service members, 12 received diagnoses of PTSD without syndromal depression (34%) and 23 comorbid PTSD/depression (66%). All but one family member and all but one tele-therapy patient had comorbid PTSD/depression. Tele-therapy patients did not differ from in-person patients, nor did patients who received new medication differ from other patients, on baseline CAPS-5 and HAM-D scores ($p$s>.05). Table 2 presents symptom scores for the full and comorbid samples, respectively. Baseline HAM-D scores were expectably higher among patients with comorbid PTSD/depression than PTSD alone ($t$=−3.15, $df$=48, $p$=.003). No other clinical differences were observed ($p$s>.05).

### Treatment Tolerability

Fourteen patients (28%) dropped out before completing the contractually agreed-upon number of sessions: ten had comorbid PTSD/depression (nine veterans/service members, one family member); the other four were veterans/service members with PTSD alone. Chi-square analyses revealed significant attrition differences between veterans/service members and family members: overall, 37% of veterans/service members ($N$=13) and 7% of family members ($N$=1) dropped out ($\chi^2$=4.84, $N$=50, $df$=1, $p$=.028). Among the comorbid subset,

39% of veterans/service members (*N*=9) and 7% of family members (*N*=1) dropped out of treatment ($\chi^2$=4.52, *N*=37, *df*= 1, *p*=.034).

## Full Sample

**PTSD change.—**Overall, mean CAPS-5 score fell from 35.7±8.9 (*N*=50; syndromal PTSD) to 20.4± =11.9 (*N*= 26; subthreshold PTSD; Figure 1a). GEE analysis yielded a main effect of time (Wald $\chi^2$=3.67, *df*= 3, *p*< .001): CAPS-5 scores decreased significantly for all patients between baseline and all timepoints (*p*s≤.001), and between midpoint and post-treatment (*p*=.028) (Table 2).

**Depressive change.—**Mean HAM-D score fell from 16.0±6.03 (*N*=50) to 9.4±6.2 (*N*=26). GEE analysis showed a main effect of time on HAM-D score (Wald $\chi^2$=45.27, *df*=3, *p*<.001; Figure 1b): like CAPS scores, HAM-D scores declined significantly for all patients between baseline and all timepoints (*p*s≤.012), and between midpoint and post-treatment (*p*=.001). There was no significant interaction effect or main effect of status (*p*s>.050).

## Sensitivity Analyses

**Symptom change among subset of patients with comorbid PTSD/depression. —**Patients with comorbid PTSD/depression showed a pattern of improvement similar to the overall sample. GEE analysis revealed a main effect of time on CAPS-5 score (Wald $\chi$2=43.50, *df*= 3, *p*<.001; Figure 2a): scores decreased significantly for all patients across all timepoints (*p*s≤.001), and between midpoint and post-treatment (*p*=.025) (Table 2). Likewise, GEE analyses revealed a main effect of time on HAM-D score (Wald $\chi^2$)=32.74, *df*= 3, *p*<.001; Figure 2b): HAM-D scores decreased significantly for all patients between baseline and all timepoints and between midpoint and post-treatment (*p*s≤.012). Neither analysis yielded a significant interaction effect or main effect of status (*p*s>.050).

**Controlling for pharmacotherapy.—**Controlling for pharmacotherapy did not alter the results of the main PTSD analysis or either comorbidity sub-analysis. However, in the depression-full sample analysis that controlled for medication, a trend-level effect emerged for statusXtime interaction (Wald $\chi^2$=7.84, *df*= 3, *p*=.050): HAM-D scores decreased more steeply among family members between baseline and midpoint (*b*=4.23, SE*b*=2.17, Wald $\chi^2$=3.80, *df*=1, *p*=.051), and between pre- and post-treatment (*b*=5.73, SE*b*=2.13, Wald $\chi^2$=7.21, *df*=1, *p*=.051).

**Controlling for tele-therapy.—**When added as a covariate to the main PTSD analysis, tele-therapy significantly contributed to the model (*b*=16.39, SE*b*=7.86, Wald $\chi^2$=4.34, *df*=1, *p*=.037). On average, CAPS scores decreased over time in both groups, with the exception of stability between post-treatment and follow-up CAPS scores among patients receiving in-person treatment (Figure 3). However, patients receiving tele-therapy scored higher than those receiving in-person treatment on CAPS-5 at pre-, mid-, and post-treatment (scores were roughly equivalent at follow-up). Nevertheless, *t*-tests found these differences not statistically significant. Counts were low for tele-therapy patients (10, 9, 8, and 7 across consecutive timepoints); small sample size may have limited ability to detect significant

differences. Alternatively, veteran vs. family member status may have confounded tele-therapy, as tele-therapy patients comprised mostly veterans/service members (6, 6, 5, and 5, across timepoints). When status was removed from the analysis, tele-therapy was no longer significant.

Controlling for tele-therapy did not alter findings of the comorbidity sub-analysis but did yield a significant finding for tele-therapy ($b$=15.03, SE$b$=7.65, Wald $\chi^2$=3.86, $df$=1, $p$=.049): $t$-tests indicated higher CAPS scores (i.e., less improvement) among tele-therapy patients at midpoint ($t$=−2.74, $df$=28, $p$=.011) and post-treatment ($t$=−2.30, $df$=25, $p$=.030). Controlling for tele-therapy did not alter the results of either HAM-D analysis; in neither instance was tele-therapy associated with HAM-D score ($p$s>.050).

## DISCUSSION

As hypothesized, veterans, service members, and family members receiving IPT in an open trial exhibited improvements in PTSD and depression symptoms over time. These positive results replicate previous civilian findings[29] and extend them to veterans in the largest study of IPT for PTSD in veterans to date.[35,36] They support growing recognition that focused systematic exposure to trauma reminders, while often useful, may not be essential to treat all PTSD patients.[43,44]

This open trial is the first study to evaluate IPT, and to our knowledge any individual psychotherapy, for military family members. Extant research on family members is scant and limited to couples or family interventions.[45] This study is the first to directly compare clinical outcomes between veterans/service members and family members receiving IPT. Previous literature hints that veterans fare less well than civilians in PTSD treatment studies, [18] but we found comparable treatment response in veterans/servicemembers and quasi-civilian military family members. Attrition was higher for veterans/servicemembers than for family members, consistent with trends in the larger PTSD treatment literature.[15]

As previously found,[13] patients with comorbid PTSD and depression who received IPT for PTSD experienced symptom relief. This comorbidity is typically associated with clinical challenges, including treatment dropout and nonresponsivity.[46,47] Consistent with these complexities, dropout among veterans with comorbid PTSD/depression was 39%, comparable to the high 36% rate reported for veterans receiving other forms of PTSD treatment.[15] However, attrition among family members with comorbid PTSD/depression was much lower (7%), lower even than seen among comorbid PTSD/depression civilian patients in our previous study comparing IPT for PTSD (20%), PE (50%) and relaxation therapy (27%).[29] As the study treated only 14 family members with PTSD/depression comorbidity, it is premature to draw conclusions regarding treatment tolerability. Among patients who remained in treatment, response followed a similar improvement pattern, regardless of comorbidity or veteran vs. family member status. The preliminary evidence for IPT's popularity and durability among veterans, and among diagnostically complex cases, make the case for research on IPT's utility in the VA system and other settings where veterans seek treatment. IPT's tolerability among family members further suggests its potential value

in broader settings, although small sample size precludes definitive recommendations at present.

Although tele-therapy was not the focus of the study, we found that patients who selected tele-therapy had somewhat more severe baseline symptomatology. These patients also exhibited declines in PTSD and depressive symptoms. Telehealth for mental health treatment, particularly video conferencing, had gained popularity for cost-effectiveness and increasing access to quality care for rural or incapacitated patients[48] even before its wholesale adoption in the wake of the Covid-19 pandemic.[49] Relevant to our sample, to veterans, and to individuals with PTSD generally, tele-therapy may benefit patients who avoid in-person treatment due to stigma.[50] Yet, as in this study, telehealth may be a modality patients with more severe symptomatology prefer, reflecting clinical symptoms of avoidance or behavioral withdrawal (often targets of treatment). Tele-IPT research is needed to address its costs and benefits.

Limitations of this open trial include small sample and subsample sizes, attrition, and lack of a control condition, which precludes drawing causal conclusions. Selective attrition may have yielded inflated estimates of symptom improvement during the course of treatment. Lack of randomization (all patients opted for IPT), and the fact that assessors were not blind to treatment or delivery modality, might have biased our findings. Some patients received altered pharmacotherapy, limiting conclusions about treatment outcomes. Some patients received tele-therapy, whose equipotence to in-person IPT remains unestablished.[49] Tele-IPT patients appeared to benefit from treatment, but our tele-therapy analyses were likely underpowered. Our military sample findings may not generalize to non-veterans or to patients in VA settings. Future research should use a randomized controlled outcome design to compare IPT to other treatment for military patients. A recently completed multisite randomized VA trial for PTSD, and a funded randomized trial for military sexual trauma, both comparing IPT and PE treatment, should provide important comparative data on IPT for PTSD among veterans. Military family members deserve further research and treatment as well. Finally, our data were not well-suited to address therapist effects on therapy outcomes; future studies should address these effects. These limitations notwithstanding, there is converging evidence that IPT for PTSD is well-tolerated and effective, including in diagnostically-complex cases.

### Conclusion

Among a combined sample of U.S. veterans, service members, and military family members who received IPT for PTSD in an open trial, PTSD and depressive symptoms reduced following treatment. Symptom reductions were also observed among a subset of patients with comorbid PTSD and depression. The results add to research supporting the value of IPT in treating PTSD in veterans and provide very preliminary support for its utility in treating PTSD in military family members. Future larger, controlled clinical studies that expand upon these promising findings will be clinically valuable.

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**Highlights:**

- Among a sample of U.S. veterans, military service members, and military family members who received interpersonal psychotherapy (IPT) for PTSD, PTSD and depressive symptoms decreased following treatment.
- Symptom reductions were also observed among a subset of patients with comorbid PTSD and depression, a particularly hard-to-treat combination.
- The results add to research supporting the value of IPT, a well-tolerated, non-exposure treatment, in treating PTSD in veterans and provide very preliminary support for the utility of IPT in treating PTSD in military family members, a high-risk yet understudied population.

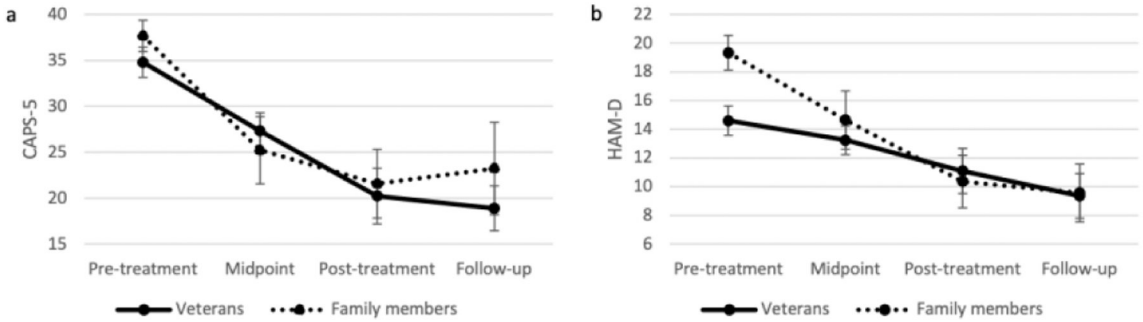


**Figure 1.**
Reductions in symptomatology among veterans, service members, and family members receiving IPT.

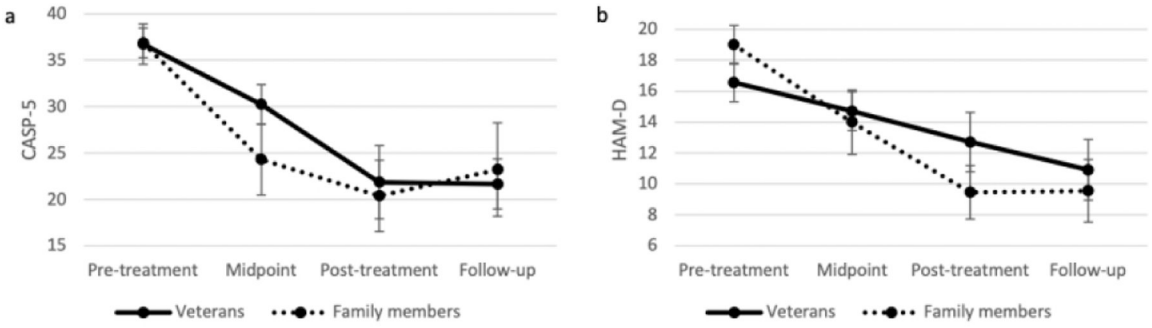


**Figure 2.**

Reductions in symptomatology among veterans, service members, and family members with comorbid PTSD/depression receiving IPT.

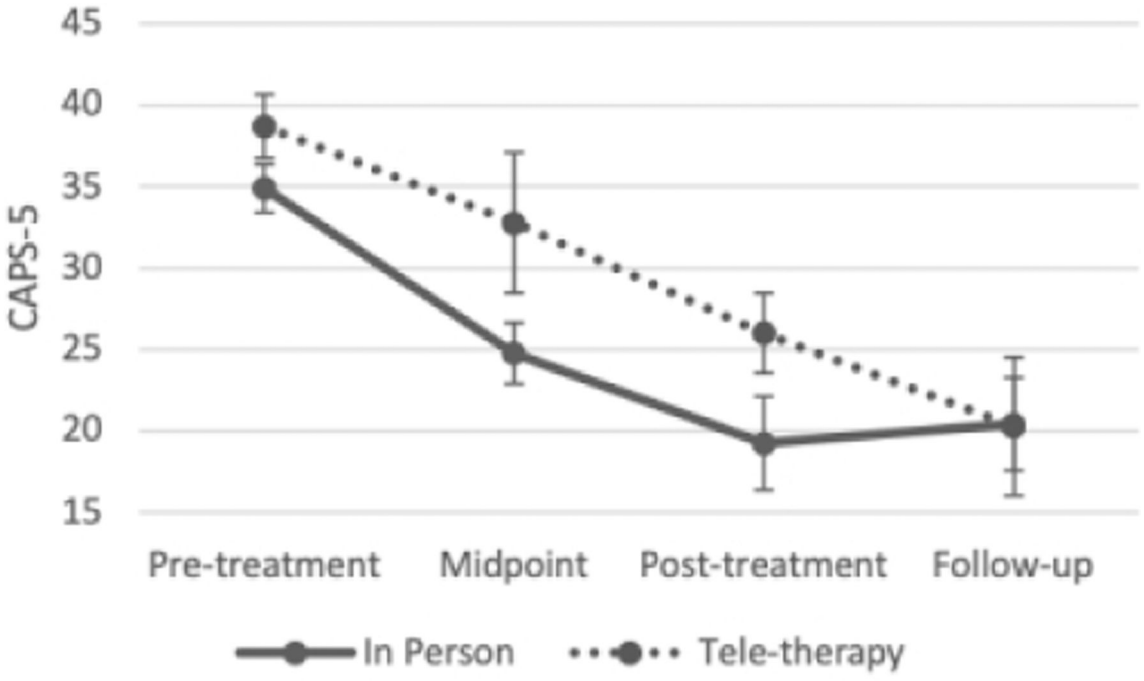


**Figure 3.**
Differential patterns of PTSD symptom reduction among patients receiving IPT in-person versus via tele-therapy.

**Table 1.**

Sample demographic and clinical characteristics

| | Veterans/service members (*N*=35) | | Family members (*N*=15) | |
|---|---|---|---|---|
| Gender | | | | |
| Male | 28 | 80% | 9 | 60% |
| Female | 5 | 14% | 6 | 40% |
| Prefer not to respond | 2 | 6% | 0 | 0% |
| Race | | | | |
| White | 13 | 37% | 8 | 53% |
| Black/African American | 12 | 34% | 3 | 20% |
| Other | 10 | 29% | 4 | 27% |
| Educational degree | | | | |
| No undergraduate degree | 11 | 31% | 5 | 33% |
| Associate'/Bachelor's | 14 | 40% | 7 | 47% |
| Master's | 8 | 23% | 2 | 13% |
| Prefer not to respond | 2 | 6% | 1 | 7% |
| Employment status | | | | |
| Working full-time | 11 | 31% | 4 | 27% |
| Working part-time | 3 | 9% | 0 | 0% |
| Student | 4 | 11% | 0 | 0% |
| Unemployed | 3 | 9% | 2 | 13% |
| Disabled | 4 | 11% | 3 | 20% |
| Retired | 7 | 20% | 2 | 13% |
| Prefer not to respond | 3 | 9% | 4 | 27% |
| Annual income | | | | |
| <$30,000 | 10 | 29% | 7 | 47% |
| $30,000–$59,999 | 9 | 26% | 1 | 7% |
| $60,000–$89,999 | 9 | 26% | 4 | 27% |
| ≥$90,000 | 4 | 11% | 3 | 20% |
| Prefer not to respond | 3 | 9% | 0 | 0% |
| Marital status | | | | |
| Single/never married | 13 | 37% | 7 | 47% |
| Married | 8 | 23% | 6 | 33% |
| Divorced/separated | 11 | 31% | 3 | 20% |
| Widowed | 1 | 3% | 0 | 0% |
| Prefer not to respond | 2 | 6% | 0 | 0% |
| Eligible for VA services | | | | |
| Yes | 32 | 91% | | -- |
| No | 3 | 9% | | -- |
| Prefer treatment in a non-VA environment | | | | |
| Yes | 16 | 46% | | -- |
| No | 19 | 54% | | -- |

| | Veterans/service members (*N*=35) | | Family members (*N*=15) | |
|---|---|---|---|---|
| Trauma type[a] | | | | |
| Combat/military-related | 21 | 60% | 0 | 0% |
| Military sexual trauma | 5 | 14% | 0 | 0% |
| Interpersonal violence | 5 | 14% | 6 | 40% |
| Childhood physical abuse | 10 | 29% | 4 | 27% |
| Childhood sexual abuse | 6 | 17% | 4 | 27% |
| Traumatic loss | 11 | 31% | 3 | 20% |
| Terrorism/mass shooting | 3 | 9% | 2 | 13% |
| Diagnosis | | | | |
| Major depressive disorder | 18 | 51% | 11 | 73% |
| Persistent depressive disorder | 9 | 26% | 6 | 40% |
| Other depressive disorder | 1 | 3% | 0 | 0% |
| Generalized anxiety disorder | 2 | 6% | 4 | 27% |
| Obsessive compulsive disorder | 1 | 3% | 2 | 13% |
| Social anxiety disorder | 1 | 3% | 1 | 7% |
| Alcohol use disorder | 1 | 3% | 1 | 7% |
| Substance use disorder | 1 | 3% | 0 | 0% |
| Eating disorder | 1 | 3% | 1 | 7% |
| Adjustment disorder | 1 | 3% | 0 | 0% |
| Attention deficit hyperactivity disorder | 1 | 3% | 1 | 7% |
| Medication | | | | |
| SSRI/SNRI | 13 | 37% | 4 | 27% |
| Bupropion | 2 | 6% | 2 | 13% |
| Tetracyclic antidepressant | 1 | 3% | 0 | 0% |
| Stimulant | 4 | 11% | 1 | 7% |
| Sedative/anxiolytic | 6 | 17% | 4 | 27% |
| Antipsychotic | 3 | 9% | 0 | 0% |
| Narcotic | 0 | 0% | 1 | 7% |
| Gabapentin | 2 | 6% | 1 | 7% |
| Beta blocker | 2 | 6% | 2 | 13% |
| Prazosin | 3 | 9% | 0 | 0% |
| Lamotrigine | 0 | 0% | 1 | 7%Z |

[a]Criterion A trauma indicated as most distressing during clinical interview. Patients could indicate one or more most distressing traumas.

**Table 2.**

Symptom scores for veterans/service members and family members

| | Full sample | | | | Subset with comorbid PTSD/depression | | | |
|---|---|---|---|---|---|---|---|---|
| | Veterans/service members (*N*=35) | | Family members (*N*=15) | | Veterans/service members (*N*=23) | | Family members (*N*=14) | |
| | ***M*** | ***SD*** | ***M*** | ***SD*** | ***M*** | ***SD*** | ***M*** | ***SD*** |
| CAPS-5 | | | | | | | | |
| Pre-treatment | 34.80 | 9.70 | 36.74 | 10.43 | 36.86 | 6.00 | 37.67 | 6.58 |
| Midpoint | 27.31 | 10.16 | 30.24 | 8.84 | 24.31 | 13.83 | 25.21 | 13.71 |
| Post-treatment | 20.23 | 14.27 | 21.86 | 14.77 | 20.38 | 13.84 | 21.57 | 14.02 |
| Follow-up | 18.88 | 10.06 | 21.67 | 9.31 | 23.22 | 15.12 | 23.22 | 15.12 |
| HAM-D | | | | | | | | |
| Pre-treatment | 14.60 | 6.04 | 16.57 | 5.98 | 19.00 | 4.67 | 19.33 | 4.69 |
| Midpoint | 13.23 | 5.09 | 14.71 | 5.16 | 14.00 | 7.50 | 14.64 | 7.59 |
| Post-treatment | 11.09 | 7.39 | 12.71 | 7.16 | 9.46 | 6.24 | 10.36 | 6.87 |
| Follow-up | 9.35 | 6.41 | 10.92 | 6.80 | 9.56 | 6.06 | 9.56 | 6.06 |

*Note*. CAPS-5 = Clinician-Administered PTSD Scale for DSM-5. Possible scores range from 0 to 80, with higher scores indicating more severe PTSD symptomatology. HAM-D = Hamilton Depression Rating Scale. Possible scores range from 0 to 54, with higher scores indicating more severe depression. Assessments completed for veterans/service members at pre-treatment, midpoint, posttreatment, and 3-month follow-up: 35, 26, 22, and 17; for family members: 15, 14, 14, 9. Assessments completed for veterans/service members with comorbid PTSD/depression at pre-treatment, midpoint, posttreatment, and 3-month follow-up: 23, 17, 14, 12; for family members with comorbid PTSD/depression: 14, 13, 13, 9.