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A Randomized Controlled Trial of an Online Group-Based Internal Family Systems Treatment for Posttraumatic Stress Disorder: The Program for Alleviating and Resolving Trauma and Stress (PARTS) Study

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Objective: Group-based posttraumatic stress disorder (PTSD) treatment options are in high demand, especially at community health centers with limited staff and resources. We have developed an online telehealth-based, 16-week group psychotherapeutic intervention program called Program for Alleviating and Resolving Trauma and Stress (PARTS) based on the Internal Family Systems psychotherapy framework. The goal of this study is to test the feasibility, acceptability, and preliminary efficacy of PARTS through a randomized controlled trial. **Method:** This randomized controlled trial randomized patients with PTSD ($N = 60$) to PARTS ($n = 30$) or a well-matched active control condition called Nature-Based Stress Reduction for Trauma Survivors, with each arm receiving 16 weekly group sessions and eight biweekly individual counseling sessions. The two arms were compared on intervention adherence, treatment satisfaction, and PTSD symptom changes as measured by the Clinician-Administered PTSD Scale for *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition. **Results:** Overall, patients in the PARTS arm attended more group sessions compared to the control arm and reported higher levels of group satisfaction ($p < .05$). Both treatment arms showed statistically significant reduction of Clinician-Administered PTSD Scale for *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition scores ($p < .001$) without significant differences between the two treatment arms. **Conclusions:** This study demonstrated the feasibility and acceptability of PARTS as a group-based PTSD treatment.

Clinical Impact Statement

This clinical trial tested the feasibility, acceptability, and preliminary efficacy of an online group-based PTSD treatment program derived from the Internal Family Systems psychotherapy, called Program for Alleviating and Resolving Trauma and Stress. Compared to the active control condition, the Program for Alleviating and Resolving Trauma and Stress demonstrated better group retention and satisfaction and is thus a promising option for group-based PTSD treatment.

Keywords: trauma, posttraumatic stress disorder, group therapy, feasibility, telehealth

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continued

Posttraumatic stress disorder (PTSD) is a substantial public health issue. While public health research has demonstrated various prevalence rates, depending on the study population, diagnostic criteria, and lookback period, a systematic review of 38 research articles demonstrated 1-year prevalence among civilians ranged from 2.3% to 9.1%, and lifetime prevalence ranged from 3.4% to 26.9% (Schein et al., 2021). Many psychotherapy techniques for PTSD, such as prolonged exposure therapy or cognitive processing therapy, tend to have low engagement from, or are not easily accessible to, civilian PTSD patients (Maguen et al., 2019). In addition, community health centers have been playing a vital role in providing mental health services to the large number of underserved populations with high PTSD prevalence. These community health centers often struggle with staff shortages for providing individual therapies (Bruckner et al., 2019), and patients often need to wait for more than 2 months, during which symptoms could deteriorate (Rosen & Hoy, 2024). Therefore, it is important to develop standardized, manualized, group-based PTSD treatments that can be implemented efficiently to enhance accessibility for patients with PTSD in community health centers.

Therefore, this study explored an online telehealth-based 16-week group-based treatment program for PTSD, which was derived from the Internal Family Systems (IFS) therapy framework. IFS was originally developed by psychologist Richard Schwartz in the 1980s by integrating family therapy concepts with influences from Buddhist psychology (e.g., mindfulness and compassion), psychodynamics (e.g., object relations, attachment), humanistic psychotherapies (e.g., Gestalt), indigenous practices, and trauma-dissociation phenomenological models to holistically address the impacts of traumatic experience and the resulting internal conflicts (Schwartz, 2013). According to the current clinical practice guidelines for PTSD, IFS is one of the interventions with high public interest but lacks sufficient research (Courtois et al., 2017); therefore, this study contributes to the literature by being the first randomized controlled trial (RCT) evaluating an IFS-based program for PTSD.

The IFS theoretical framework is highly relevant to PTSD treatment (Comeau et al., 2024). For example, IFS theory states all individuals have a “self” and “parts,” which constitute an internal system. The “self” represents a clear, curious, and compassionate presence, which leads the internal system to resolve conflicts. Everyone has multiple “parts,” which have discernable roles and relationships with one another and the “self,” similar to the dynamics of a family. From a cognitive perspective, “parts” are similar to self-schemas made up of linked thoughts, feelings, and urges tied with a sense of self-identification. These “parts” impact attention, evaluation, and retention

processes. Conflict between the “parts” within the internal system is associated with symptoms of psychopathology, particularly for protecting from the impacts of past traumas. During IFS therapy, all “parts” receive attention, recognition, and compassion, which fosters acceptance and reduces shame and denial, while facilitating emotion regulation and healing from PTSD (Comeau et al., 2024).

The IFS approach has been gaining worldwide popularity over the past 4 decades. By 2025, more than 14,000 clinicians had been formally trained with the IFS technique, with 9,800 currently listed as trained practitioners in the United States and 2,000 currently in Level 1 training, with over 5,000 on waitlists for IFS Level 1 training (IFS Institute CEO, Katie Nelson, personal communication, August 22, 2025). IFS concepts have also been widely distributed worldwide (Martins, 2022), with numerous self-help books circulating among the general public (Schwartz, 2021). So far, IFS has been primarily used as an individual therapy modality through private psychotherapy practices or as an increasingly popular approach to psychedelic-assisted psychotherapy (Cavarra et al., 2022), but it has not been available in formats accessible to community mental health centers. IFS has been documented to be applied in a wide variety of psychopathologies, such as dissociative disorder (Twombly, 2013), shame-based dysfunctions (Sweezy, 2011), depressive symptoms (Haddock et al., 2017), rheumatoid arthritis (Shadick et al., 2013), bipolar disorder (Vasquez, 2022), and substance use disorder (Ally et al., 2025).

Despite the growing popularity of IFS in clinical practice, very limited rigorous research has been conducted regarding its clinical efficacy. One rheumatoid arthritis RCT compared 39 patients randomized to receive an IFS-based group and individual therapy sessions over 36 weeks to 40 patients who were randomized to receive mailed arthritis educational materials, and reported statistically significant between-group improvements in pain, physical function, depressive symptoms, and self-compassion (Shadick et al., 2013). Another RCT with depressed female college students compared 22 patients randomized to receive 16 weekly individual sessions of IFS therapy to 15 patients who received cognitive behavioral therapy and/or interpersonal psychotherapy, and found a statistically significant reduction of depressive symptoms at the end of the 16-week interventions without a statistically significant difference between the two treatment arms (Haddock et al., 2017). A single-arm study ($N = 17$) evaluated the effects of 16 weekly individual IFS therapy sessions for PTSD patients who were exposed to multiple types of childhood trauma, and found statistically significant within-group improvements in PTSD symptoms, depressive symptoms, dissociation, somatization, affect dysregulation, and self-compassion (Hodgdon et al., 2022). A recent single-arm study

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and writing—review and editing. Dilara Ally played a supporting role in investigation and writing—review and editing. Lawrence G. Rosenberg played a supporting role in supervision. Martha Sweezy played a supporting role in supervision and writing—review and editing. David Lovas played a supporting role in supervision and writing—review and editing. Zev Schuman-Olivier played a lead role in conceptualization, funding acquisition, investigation, methodology, project administration, resources, and supervision and a supporting role in writing—original draft and writing—review and editing.

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($N = 15$) with a 16-week online group-based IFS program for PTSD demonstrated reduced PTSD symptoms and enhanced capacity for emotion regulation, decentering, and self-compassion (Comeau et al., 2024). Another single-arm study ($N = 10$) with a 12-week online group-based IFS program for comorbid PTSD and substance use disorder reported statistically significantly reduced PTSD symptoms and substance craving (Ally et al., 2025).

More clinical research is still needed for the development, refinement, and evaluation of a standardized group-based IFS program to increase the accessibility and sustainability of IFS-based treatments that can be utilized in community mental health services. We recently developed a 16-week standardized, manualized online group intervention program based on IFS concepts and framework, called “Program for Alleviating and Resolving Trauma and Stress (PARTS),” which demonstrated initial efficacy in reducing PTSD symptoms in a small sample ($N = 15$) single-arm study (Comeau et al., 2024). Therefore, the current RCT further compared PARTS with an active control intervention called “Nature-Based Stress Reduction for Trauma Survivors (NBSR-T).” The NBSR-T curriculum follows a similar format of didactics, discussion, and experiential exercises using validated nature videos to match the effects of contemplative practice on affective valence and arousal during group sessions (Giachos et al., 2022; Schuman-Olivier et al., 2025).

This RCT ($N = 60$) aimed to evaluate the feasibility, acceptability, and preliminary efficacy of the 16-week PARTS program ($n = 30$) versus the NBSR-T ($n = 30$) active control arm. Feasibility was measured by group session attendance rate, and acceptability was measured by participant satisfaction with group experience. Based on feasibility study guidelines (Teresi et al., 2022), if 70% of participants completed 12 out of the 16 group sessions, the intervention would be considered as feasible. We hypothesized PARTS having greater feasibility and acceptability compared to NBSR-T, with greater reduction of PTSD symptom severity.

Method

Subject Enrollment and Eligibility Criteria

This RCT was registered on <https://clinicaltrials.gov> (NCT05095428) and approved by the Institutional Review Board of Cambridge Health Alliance (CHA-IRB-21-22-18). Patients were recruited through digital advertising and outpatient clinical referrals, as well as from an online community mental health screening program called “CHAMindWell” (Rosansky et al., 2023) by inviting all patients with a PTSD score ≥ 58 on the Computerized Adaptive Testing for Mental Health (Gibbons et al., 2008). Patient screening and consenting followed Institutional Review Board-approved procedures: Step 1 was a prescreening call orienting potential participants to the screening process and confirming their interest, availability, and willingness to attend the live online group sessions; Step 2 was an informed consent session via videoconference during which trained study staff reviewed the informed consent form and explained study procedures. The community health center where the study took place had an imperative for reducing individual therapy due to a staffing shortage. Therefore, patients were told they should stop individual therapy and to not resume individual therapy after the end of this study. Participants completed a consent assessment consisting of 10 true–false questions related to the study procedures, requiring a score of $\geq 90\%$ before

participants were eligible to sign the consent form via the REDCap secure online platform; in Step 3, patients completed PTSD Checklist for *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition online, with a score ≥ 31 required to be eligible to continue (Blevins et al., 2015); then in Step 4, a Clinician-Administered PTSD Scale for *DSM-5* (CAPS-5) assessment was conducted by phone or via online videoconference (Bovin et al., 2025) to confirm PTSD diagnosis, excluding any patients with a CAPS-5 score < 26 (Weathers et al., 2018); finally, in Step 5, a study coordinator reviewed the electronic health record and provided a summary of the information to a licensed study mental health clinician who conducted a clinical interview to assess whether randomization to either group would be safe for participants, paying attention to symptoms of severe borderline personality disorder, self-harming behaviors, psychosis, mania, and active suicidality; and then in Step 6, the study team and principal investigator conducted a final review of all eligibility data and screening measures prior to sending each study ID to the blinded data analyst for randomization assignment.

The following inclusion criteria were implemented: 18–75 years of age, PTSD Checklist for *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition score ≥ 31 , and willing and able to attend at least 75% of group intervention sessions and complete online questionnaires with a reliable electronic device. Exclusion criteria were as follows: CAPS-5 < 26 , concurrent participation in another research study, active psychosis, Bipolar I disorder, acute suicidality or life-threatening self-injurious behavior, acute homicidality, moderate/severe substance use disorder with use of nonprescribed controlled substances within the past 3 months, and borderline personality disorder as determined by the clinical director to be unsafe for the participant or disruptive to group processes based on health record notes and/or presentation in clinical interview.

Eligible participants were randomized using a computerized block randomization with a 1:1 allocation ratio (block size = 4) to PARTS versus NBSR-T. Randomization was completed by the data analyst who was blinded to group and participant identity. Once the data analyst received the study ID number for an eligible participant from the research coordinator, then the blinded allocation code (i.e., Group A or B) for that participant was given to the research coordinator. No stratification variables were utilized during the randomization process.

Interventions

Both PARTS and NBSR-T interventions included 16 weeks of 90-min group sessions held via the secure, Health Insurance Portability and Accountability Act-compliant Zoom videoconference platform. Participants were also arranged to receive eight biweekly 55-min individual counseling sessions during the 16 weeks with a licensed therapist. All group and individual sessions were led or provided by licensed mental health professionals including doctoral-level clinicians such as psychologists or psychiatrists, as well as master’s-level clinicians such as social workers and licensed mental health counselors. All therapists in the PARTS arm received at least Level 2 IFS training (130 training hours). The NBSR-T arm was led by a clinical psychologist with >8 years of experience treating psychological trauma. Group leaders and individual session counselors in both arms received semiweekly clinical group supervision. Participants received weekly email reminders from

the research team as well as monthly calls to assess their experience in the study and encourage adherence. Participants were also assigned “home practices” between sessions.

Curriculum of PARTS

The PARTS curriculum was designed to provide a safe container for learning and using the IFS skills in individual, dyadic, and group-based experiential exercises (Comeau et al., 2024; Shadick et al., 2013). Weekly group sessions typically included 15 min of themed curriculum (see Supplemental Table S1) and 30–45 min of various experiential exercises, such as guided meditation, demonstration of IFS-style inquiries between a group leader and one volunteer participant, “speaking for parts” exercise, and “finding parts in the body” meditation. In addition to experiential practices, participants had 30 min for group discussion. Participants were asked to keep a journal to write down observations and parts they noticed during the week and asked to bring the journal to the group to record insights from group exercises. Every other week, participants also received 55-min individual sessions. The individual sessions were designed to support psychological safety, to resolve ambivalence or barriers to group activity participation, to enhance therapeutic alliance, and to facilitate self-discovery. All group and individual sessions were provided by IFS-trained master’s-level therapists.

Curriculum of NBSR-T

NBSR-T was designed as an active control condition, which matched the PARTS curriculum on time, duration, format, attention demand, expectancy, dose of experiential practice, dose of therapeutic professional contact, levels of arousal, and PTSD education. The NBSR-T curriculum included inspirational discussion and activities to encourage connection with nature as a means to reduce posttraumatic stress and restore relational trust. Prior research showed that understanding the way of the natural world and watching animal behaviors can be calming for people who have experienced psychological trauma (Poulsen et al., 2016). The NBSR-T curriculum included viewing nature videos with various affective valences (pleasant, neutral, unpleasant; Giachos et al., 2022) that were matched in time duration to the amount of experiential practice provided during each PARTS group session. Participants in NBSR-T received semiweekly 55-min individual sessions with a licensed mental health provider (not IFS-trained) for psychotherapy, which incorporated trauma-focused skills, exercises, and concepts from evidence-based trauma treatments (e.g., window of tolerance, recognition of systemic racism and intergenerational aspects of trauma, and stage-based approach for trauma recovery; Herman, 1998). The individual sessions were designed to support psychological safety, to resolve barriers to group participation, to enhance therapeutic alliances, and to reduce PTSD symptoms. All group and individual sessions were provided by or supervised by a doctoral-level clinician with trauma expertise who was not trained in IFS.

Participant Characteristics, Feasibility and Acceptability Measures, and Analyses

We used STATA Version 18 for all statistical analyses. Baseline demographics were analyzed with the independent two-sample *t* test, Levene’s test for equality of variances, and Fisher’s exact test.

Feasibility of the interventions was measured by proportions of patients completing at least 12 out of the total 16 group sessions, which was compared between the two treatment arms with Fisher’s test. The number of group sessions attended by participants within each arm was compared between the two arms with an independent two-sample *t* test.

A custom treatment satisfaction questionnaire with previously validated items (Gawande et al., 2019; Janzow et al., 2022) was administered at the end of the 16-week interventions. The proportions of participants rating the facilitator as excellent, as well as the proportions of participants rating the group experience as excellent, were compared between the two arms with Fisher’s test. Corrections for multiple comparisons were conducted using the Benjamini–Hochberg method with a false discovery rate of 0.05 (Benjamini & Hochberg, 1995). Questionnaire items and average ratings are in the Supplemental Tables S3 and S4.

Primary Clinical Outcome Measures and Comparative Analyses

CAPS-5 was used as the primary clinical outcome. The CAPS-5 interview is a structured diagnostic interview and the gold standard for assessing PTSD symptoms according to *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (Weathers et al., 2018). Clinical interviews were administered over the phone or via online teleconference by independent evaluators with at least a master’s degree in psychology or related mental health fields, who were blinded to treatment conditions. CAPS-5 was administered at preintervention baseline, midprogram (Week 8), and postintervention (Week 16) time points. Postintervention CAPS-5 score reductions of ≥ 10 were considered as *clinically meaningful* changes (Weathers et al., 2018). Participants with postintervention CAPS-5 scores < 8 were considered in remission of PTSD and, therefore, classified as having had *clinically significant* symptom changes (Marx et al., 2022). The proportions of participants with postintervention CAPS-5 score reductions ≥ 10 in each treatment arm and the proportions of participants with postintervention CAPS-5 scores < 8 in each treatment arm were compared between the two treatment arms with Fisher’s test.

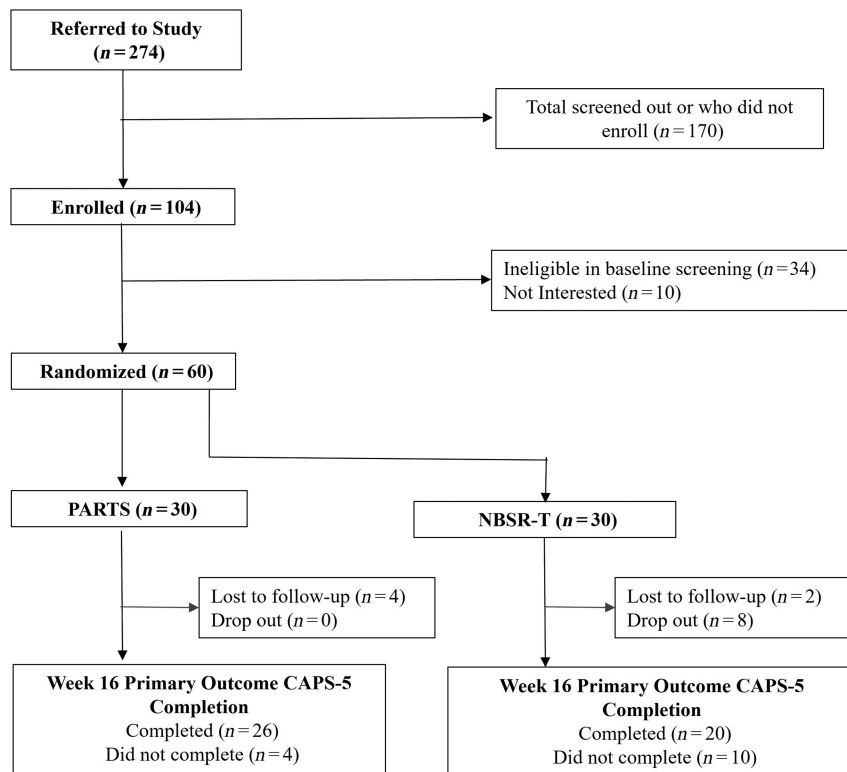
We used an intention-to-treat, repeated-measures analysis using linear mixed effects models with a Time Point $\times$ Treatment Arm interaction term to assess the relative changes from baseline to Week 16. Effect sizes (Cohen’s *d*) were also calculated. For all analyses, maximum likelihood estimation was used to address missingness, and demographic variables were included in the model as covariates.

Results

Participant Demographic and Clinical Information at Baseline

The study enrolled a total of 104 patients, and 60 eligible participants were randomized (Figure 1). Only eight of the enrolled patients were recruited from the “CHAMindWell” community health screening program (Rosansky et al., 2023), while the rest were recruited from outpatient clinician referral or patient self-referral. All enrolled patients had a documented PTSD diagnosis in the health care system electronic health record. The overall study sample consisted of 46.7% White and 75% female, with 88.3% having

Figure 1
Clinical Trial Consolidated Standards of Reporting Trials Diagram



Note. PARTS = Program for Alleviating and Resolving Trauma and Stress; NBSR-T = Nature-Based Stress Reduction for Trauma Survivors; CAPS-5 = Clinician-Administered PTSD Scale for DSM-5; PTSD = posttraumatic stress disorder; DSM-5 = *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition.

some college-level education. There were no statistically significant differences with any baseline demographic variables between the two treatment arms (Table 1). The two treatment arms did not have statistically significant differences with baseline CAPS-5 mean scores, but the standard deviation of CAPS-5 for PARTS was higher than NBSR-T (Table 1). The PARTS arm had eight participants (8/30) with high levels of PTSD severity (CAPS-5 ≥ 47), while NBSR-T had none (0/30; $p < .01$).

Group Comparisons of Feasibility and Acceptability

There were statistically significant differences in terms of the number of group intervention sessions that participants in each arm attended, in which the PARTS arm on average attended 12.8 out of the total of 16 sessions, which was higher than the average of 10 sessions in the control arm ($p = .05$, corrected; Table 2). The PARTS arm also had more participants completing at least 75% of the group sessions ($p = .04$, corrected). More participants in the PARTS arm than in the control arm rated facilitators ($p = .05$, corrected) and group experience ($p = .05$, corrected) as excellent (Table 2). PARTS and NBSR-T respectively had four and two participants lost to follow-up (Figure 1). NBSR-T had eight participants drop out due to changed schedule or other logistic reasons ($n = 3$) or due to experiencing distress ($n = 5$; Supplemental Table S2).

Symptom Changes in Each Group and Group Comparisons

Both arms had statistically significant reductions of CAPS-5 scores at the end of the 16-week interventions ($p < .001$, Table 3); the PARTS arm had an average score change of -11.0 ($d = -1.4$, $p < .001$, 95% CI $[-15.7, -6.3]$), while the NBSR-T arm had an average score change of -13.2 ($d = -1.7$, $p < .001$, 95% CI $[-16.4, -10]$). The reduction from baseline to Week 16 in CAPS-5 scores between the PARTS and NBSR-T arms was not statistically significantly different (difference = 2.2, 95% CI $[-3.4, 7.9]$, $d = 0.3$, $p = .4$). The PARTS and NBSR-T arms each had 40% of participants (12/30) with a *clinically meaningful* reduction (CAPS-5 score reduction ≥ 10). The PARTS arm had 6.7% (2/30) with *clinically significant* reduction (CAPS-5 score at Week 16 < 8 , indicating PTSD remission) compared to 0% (0/30) in the NBSR-T arm.

Discussion

This RCT evaluated the feasibility, acceptability, and preliminary efficacy of an IFS-based 16-week program for PTSD compared to a well-matched active control condition. Although both arms reduced PTSD symptoms, the PARTS arm had better retention rates and higher participant satisfaction compared to the active control arm.

Table 1
Demographic Characteristics of Research Participants

Variable	PARTS (<i>n</i> = 30)	NBSR-T (<i>n</i> = 30)	Total (<i>n</i> = 60)
Female, <i>N</i> (%)	23 (76.7%)	22 (73.3%)	45 (75.0%)
Race, <i>N</i> (%)			
American Indian or Alaska Native	1 (3.3%)	0 (0%)	1 (1.7%)
Asian	4 (13.3%)	4 (13.3%)	8 (13.3%)
Black, Haitian, or African American	4 (13.3%)	5 (16.7%)	9 (15.0%)
White	17 (56.7%)	11 (36.7%)	28 (46.7%)
Other	4 (13.3%)	10 (33.33%)	14 (23.33%)
Ethnicity, <i>N</i> (%)			
Hispanic, Spanish, or Latinx origin	7 (23.3%)	6 (20.0%)	13 (21.7%)
Not Hispanic, Spanish, or Latinx	22 (73.3%)	21 (70.0%)	43 (71.7%)
English as a second language, <i>N</i> (%)	4 (13.3%)	2 (6.7%)	6 (10.0%)
Marital status, <i>N</i> (%)			
Single	14 (46.7%)	10 (33.3%)	24 (40.0%)
Married or living as married	9 (30.0%)	12 (40.0%)	21 (35.0%)
Divorced	3 (10.0%)	2 (6.7%)	5 (8.3%)
Other	4 (13.3%)	6 (20%)	10 (16.7%)
Highest level of education, <i>N</i> (%)			
No college	4 (13.3%)	3 (10%)	7 (11.7%)
Some college education	18 (60%)	20 (66.7%)	38 (63.3%)
Some graduate education	8 (26.7%)	7 (23.3%)	15 (25%)
Sexual identity, <i>N</i> (%)			
Heterosexual	12 (40.0%)	11 (36.7%)	23 (38.3%)
LGBTQIA+	18 (60%)	19 (63.3%)	37 (61.7%)
CAPS-5 (<i>M</i> ± <i>SD</i>)	41.20 ± 8.26	38.57 ± 4.87	39.88 ± 6.85
PCL-5 (<i>M</i> ± <i>SD</i>)	46.03 ± 12.60	43.23 ± 12.51	44.63 ± 12.53

Note. PARTS = Program for Alleviating and Resolving Trauma and Stress; NBSR-T = Nature-Based Stress Reduction for Trauma Survivors; CAPS-5 = Clinician-Administered PTSD Scale for *DSM-5*; PTSD = posttraumatic stress disorder; PCL-5 = Posttraumatic Stress Disorder Checklist for *DSM-5*; *DSM-5* = *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition; LGBTQIA+ = lesbian, gay, bisexual, transgender, queer (or sometimes questioning), intersex, asexual, and others.

Most PARTS participants rated the group experience as excellent, at proportions statistically significantly above the control arm. Participants in the PARTS arm on average also attended more group sessions than the control arm. Such feasibility and acceptability data demonstrated the advantages of the PARTS program with group engagement and retention. Nevertheless, it is worth noting the dropout rates of both treatment arms (33.3% NBSR-T vs. 13.3% PARTS) were not very high compared to the common dropout rates of 24.2%–50% in the PTSD treatment literature (Edwards-Stewart et al., 2021; Schottenbauer et al., 2008). In community health center settings that lack staff and resources to provide evidence-based individual PTSD therapy treatment for everyone efficiently, PARTS is a promising option to meet the public health demand for group-based PTSD treatments. Furthermore, the large number of trained IFS therapists in the United States makes the IFS-based PARTS program a viable option for use nationwide. The finding that a

higher proportion of participants in the PARTS arm rated group facilitators as “excellent” is likely due to the relational and compassion-based features of the PARTS groups, not reflecting the competence levels of the facilitators.

The finding that both arms showed improvement with PTSD symptoms without statistically significant group differences is consistent with emerging findings from large-scale meta-analyses of multiple popular psychotherapy interventions having small or negligible effects compared to active control conditions. For example, a recent meta-analysis of 65 studies with a total of *N* = 4,929 participants found that exposure therapy, a commonly used intervention for PTSD, had large effect sizes compared to passive controls such as waitlist or treatment-as-usual, but only had small effects compared to active control therapies that were not trauma-focused, and had negligible effects compared to other trauma-focused treatment or medication (McLean et al., 2022). Mindfulness-based interventions for various psychological

Table 2
Comparisons Between the Two Treatment Arms on Intervention Session Attendance and Treatment Satisfaction

Feasibility and acceptability measure	PARTS (<i>n</i> = 30)	NBSR-T (<i>n</i> = 30)	Adjusted <i>p</i>
Total number of sessions attended, <i>M</i> (<i>SD</i>)	12.8 (4.2)	10.0 (5.6)	.05
Number of participants that attended at least 12 out of the total 16 sessions, <i>N</i> (%)	24 (80.0%)	14 (46.7%)	.04
Number of participants that rated facilitators as excellent, <i>N</i> (%)	19 (86.4%)	11 (57.9%)	.05
Number of participants that rated group experience as excellent, <i>N</i> (%)	15 (68.2%)	7 (17.1%)	.05

Note. All *p* values have been adjusted for multiple comparisons. PARTS = Program for Alleviating and Resolving Trauma and Stress; NBSR-T = Nature-Based Stress Reduction for Trauma Survivors.

Table 3*Comparisons of End of Program Score Changes of CAPS-5 Between PARTS and the Active Control Condition of NBSR-T*

Intervention	CAPS-5 score Week 16–Week 0				Difference in Week 16–Week 0 relative to control			
	Difference	95% CI	Cohen's <i>d</i>	<i>p</i>	Difference	95% CI	Cohen's <i>d</i>	<i>p</i>
NBSR-T	–13.2	[–16.4, –10]	–1.7	<.001				
PARTS	–11.0	[–15.7, –6.3]	–1.4	<.001	2.2	[–3.4, 7.9]	0.3	.4

Note. CAPS-5 = Clinician-Administered PTSD Scale for *DSM-5*; PTSD = posttraumatic stress disorder; PARTS = Program for Alleviating and Resolving Trauma and Stress; NBSR-T = Nature-Based Stress Reduction for Trauma Survivors; *DSM-5* = *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition; CI = confidence interval.

and medical conditions were also found to only have superiority over passive controls, with small-to-no differences compared to active controls (Goldberg et al., 2022). The therapeutic effects of the control arm were likely due to various nonspecific factors. For example, peer support has been shown to play a role in group interventions (Chatoor & Kurpnick, 2001) and therefore could have contributed to the symptom improvement in the control arm. In addition, nature-based therapies are known to be beneficial for PTSD (Varming Poulsen, 2017). Finally, the NBSR-T curriculum was designed to closely match with the PARTS curriculum; therefore, multiple group and individual session-related factors could have contributed to the therapeutic effects of this active control condition. Our recent studies found that although mindfulness interventions had comparable effects in reducing clinical symptoms compared to active control conditions, mindfulness-based interventions had distinct psychological (Joss, Teicher, & Lazar, 2024b) and neural mechanisms (Joss, Lu, et al., 2024; Joss, Teicher, & Lazar, 2024a). Future research will further investigate the psychological and neural mechanisms of PARTS for additional insights.

“Dose finding” for psychotherapy programs is a novel investigational approach to address an important need in the efforts for developing standardized interventional programs (Towner et al., 2021). “Dose finding” is a common research methodology in pharmaceutical literature for drug development, with the goal of establishing an optimal dose to maximize treatment effects while minimizing toxicity. Although traditional psychotherapy is not particularly concerned about the optimal dosage, the public health demand for cost-effective treatment options and the emergence of standardized psychotherapy programs present a dire need for determining the optimal dosage of psychotherapy treatment options. A recent systematic review suggests a wide range of optimal doses of 4–26 psychotherapy sessions with variations dependent on patient population, treatment settings, and outcome measures (Robinson et al., 2020). The present study is one step toward exploring the optimal dosage for both the number of group sessions and individual sessions, built on prior attempts for standardized IFS-based psychotherapy programs that have explored various combinations of individual (Haddock et al., 2017; Hodgdon et al., 2022) and group sessions (Ally et al., 2025; Shadick et al., 2013). The dose combination of 16 weekly group sessions and eight biweekly individual sessions used in this RCT was based on balanced consideration of various factors including psychological safety for PTSD, prior empirical experience with IFS therapy dosage for therapeutic effects, and potential health care costs in future implementations in community health centers. Other PTSD treatment programs have attempted to shorten treatment regimens—for example, Skills Training in Affective and Interpersonal Regulation (Levitt & Cloitre, 2005) adapted for six web-based modules for combat

veterans (Ong et al., 2024). However, it is still unknown whether a condensed format could be appropriate for other patient populations (e.g., civilian PTSD samples with comorbid complex PTSD or attachment disorders). A future clinical trial should leverage the high retention rates of group sessions and explore the possibility of reducing individual sessions to identify the least amount of individual therapy sessions needed to benefit from the group-based feature of PARTS. A larger, well-powered RCT that directly compares treatment arms receiving different dosages is required to identify the ideal treatment regimen to establish the PARTS intervention as a standardized, manualized PTSD treatment option.

This study has several limitations: (a) There is a limitation with the design and conduct of this clinical trial. Due to limited funding and resources, this study only enrolled a small sample size, which was insufficient to draw definitive conclusions on efficacy. Another major problem was that subjects were not stratified by baseline PTSD severity during randomization. Although the baseline CAPS-5 scores had nearly identical means and were not statistically significantly different between the two treatment arms, the PARTS arm was randomly assigned a higher number of people with high PTSD severity at baseline and a higher standard deviation, which could have affected the amount of symptom reduction captured in group statistics because patients with high levels of PTSD severity have been shown to be less likely to respond to treatments (Fonzo et al., 2020). Future clinical trials should stratify by baseline PTSD severity. (b) The primary outcome measure CAPS-5 does not capture symptoms of complex trauma, attachment trauma, or impairments in social functioning. Given the family therapy background of the IFS theoretical framework, the IFS-based PARTS intervention might have had unique effects for processing interpersonal trauma and its impact on self-knowledge, self-organization, quality of interpersonal relationships, and overall quality of life and social functioning, which should be investigated in future studies. (c) Due to limited resources at the community health center where this RCT took place, participants were told that they would no longer be resuming individual psychotherapy within this health care system after completing this 16-week program. Although this situation was already explained to all patients at the time of informed consent, when they were reminded toward the end of 16-week programs, patients might have experienced elevated levels of stress due to loss of access to long-term individual treatment, which might have confounded the symptom severity assessments at the postintervention time point. Therefore, interpretation of findings from this study should take into consideration the larger context of the logistical challenges faced by community health centers and how accommodation to these challenges could have affected the design and conduct of the clinical trial. Another methodological limitation was

that this study did not evaluate or quantify attachment trauma, and it is possible that patients with more severe attachment trauma had stronger reactions to termination stress, but this aspect of individual variability was not captured in this RCT, which was a lost opportunity. It is important for future studies to investigate and control for the impact of individual variability in the severity of attachment trauma as well as the level of psychological dependence on individual psychotherapy (Geurtzen et al., 2018). (d) More mechanistic investigations are still needed in future studies, such as elucidating the psychological and neural mechanisms of PARTS, quantifying the amount of contribution of the individual therapy sessions versus the group sessions, and identifying specific therapeutic elements. (e) The NBSR-T intervention was delivered or supervised by doctoral-level clinicians with trauma therapy expertise, while the PARTS intervention was provided by IFS-trained master's-level therapists. Yet, given that the two arms achieved comparable symptom reduction and that the PARTS treatment arm had better retention and group engagement, this suggests PARTS has the potential for public health implementations in community health centers where direct care from doctoral-level clinicians can be less common (Najavits et al., 2020).

In conclusion, this study demonstrated the feasibility and acceptability of PARTS as a group-based online PTSD treatment program, which has the potential to increase the accessibility and affordability of IFS-based treatment approaches in community mental health.

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