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Decreases in Psychiatric Symptoms Persist Following Exposure-Based Group Therapy for Sexual Violence Victimization Among Incarcerated Women

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Abstract

Survivors Healing from Abuse: Recovery through Exposure (SHARE) is a brief, exposure-based group treatment for incarcerated female survivors of sexual violence. Preliminary evaluations of SHARE showed declines in depression and posttraumatic stress disorder (PTSD) symptoms from pre- to post-treatment. However, prior investigations have not included a longitudinal follow-up period and thus knowledge of whether therapeutic benefits persist following the termination of the group is lacking. Here, we examined data from 57 incarcerated women who completed SHARE and provided follow up data while still incarcerated (M = 95 days post-treatment). Results from a one-way repeated measures ANOVA showed significant reductions in PTSD and depression symptoms from pre- to post-treatment (large effect sizes), with symptoms further reduced during the follow-up period. In addition, McNemar tests showed a significant reduction in the proportion of participants at or above the clinical cut-off for PTSD and depression from pre-to post-treatment as well as from post-treatment to the follow-up assessment. Together, results suggest that the therapeutic benefits of SHARE after treatment is completed.

Keywords

Interpersonal traumas; sexual abuse; evidence-based treatments; trauma-focused treatments

A recent review found that 56–82% of incarcerated women have experienced one or more sexual assaults in their lifetime, with about one third experiencing sexual abuse prior to age 12 (Karlsson & Zielinski, 2020). Sexual victimization is linked to negative psychological and physical outcomes, including high prevalence of mental illnesses such as posttraumatic stress disorder (PTSD), depressive disorders, and substance use disorders (Dworkin, 2018; Karlsson & Zielinski, 2020). There is also emerging evidence that sexual victimization may contribute to risk of women's incarceration via the development of mental illness and substance use disorders (e.g., Lynch et al., 2017). For example, untreated PTSD is

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linked to greater likelihood for substance use relapse (Kubiak, 2004) and criminal recidivism (Zlotnick, Johnson, & Najavits, 2009) in samples of incarcerated women.

Prisons are important settings in which to provide needed mental health intervention; however, there are setting-specific challenges to implementing traditional evidence-based PTSD treatments that must be overcome. First, past research has shown that prisons are often underresourced resulting in a relatively small portion of those in need receiving treatment even if it is "available" (Taxman, Perdoni, & Harrison, 2007). As a result, if prisons offer treatment for trauma sequelae, they often pick interventions that can be run in large and/or open groups—a feature that is uncommon for evidence-based PTSD treatment. Second, there are concerns that the prison environment is not suitable for trauma-focused treatments. One such concern is connected to the high risk for revictimization while incarcerated. Wolff, Frueh, Shi and Schumann (2009) found that women in carceral settings have 6–10 times higher risk of being raped compared to women in the community. Another concern is related to common prison security practices, such as body searches, and that these could serve as detrimental reminders of past trauma (Moloney, van den Bergh, & Moller, 2009). Moreover, some have argued that the inherent control- and punishment-oriented nature of incarceration makes it incompatible with trauma treatments (Miller & Najavits, 2012; Wolff et al., 2009). For instance, expression of emotions like anger and sadness may be viewed as problematic, and even lead to segregation if behaviorally expressed. Trauma-informed correctional care is a promising model to use in these settings in order to address some of these concerns (Miller & Najavits, 2012). However, it is also important to evaluate the feasibility and outcomes of trauma-focused treatments in carceral settings.

Myriad treatments for PTSD have been developed, either those meant to address PTSD sequelae alone (e.g., prolonged exposure; Foa, Hembree, & Rothbaum, 2007) or those designed to address PTSD and comorbidities (e.g., COPE for comorbid PTSD and substance use, Back, 2015; MCET for comorbid PTSD and panic, Falsetti, Resnick, & Davis, 2008). In addition, some PTSD treatments have been developed to be delivered in group format (e.g., CPT, Resick, Monson, & Chard, 2017; Trauma-Focused Group Therapy, Schnurr et al., 2003). However, these treatments tend to be resource intensive and lengthy, making them a challenge to be delivered in high-needs, low-resource settings like prisons. One exception is Seeking Safety, a flexible treatment that can be delivered in individual or group format and can be delivered in few or many sessions, depending on the setting needs, by reducing the content of skills covered (Najavits, 2002). Seeking Safety has been adapted for use in prisons (Lynch, Heath, Mathews, & Cepeda 2012; Zlotnick et al., 2009). However, Seeking Safety is explicitly present-focused and does not require participants to conduct imaginal exposure (that is, to visit in written or oral form a detailed account of their traumatic past). Studies of this therapeutic approach find it is often indistinguishable in terms of key clinical outcomes from attentional control (e.g., health classes; Hien et al., 2012; relapse prevention group; Schäfer et al., 2019) or treatment as usual (e.g., Zlotnick et al., 2009), and is inferior to treatments for PTSD that include exposure (Norman et al., 2019). One exception is Lynch and colleagues' study (2012) on incarcerated women participating in Seeking Safety versus a waitlist control group. They found a medium effect in favor of Seeking Safety comparing pre-and posttreatment PTSD symptoms.

Survivors Healing from Abuse: Recovery through Exposure (SHARE) is a group therapy that was developed to address the clear need for active trauma treatments that can be delivered in women's prisons (Karlsson, Bridges, Bell, & Petretic, 2014; Karlsson, Zielinski, & Bridges, 2015, 2020; Zielinski, Karlsson, & Bridges, 2016). It was designed to be brief and delivered in group format, a common modality for rehabilitation programming in prisons (Morgan, Kroner, & Mills, 2006). SHARE is a closed group comprising eight weekly 90-minute sessions. The primary active treatment component is imaginal exposure (c.f. Foa, et al., 2007). Previous research has found that participation in SHARE is associated with significant reductions in PTSD, depression, and generalized anxiety disorder (GAD) from pre- to post-treatment, with large effect sizes (Karlsson et al., 2014, 2015, 2020). Seventy percent of participants also evidence clinically significant reductions in symptoms on at least one of the three symptom measures (Karlsson et al., 2015). However, whether SHARE's immediate benefits persist over time has not been previously examined.

Data from prior randomized clinical trials of individual exposure-based trauma therapy provide reason to expect that SHARE's therapeutic benefits will persist for some time after treatment is completed (Foa, et al., 1999, 2005; Resick, Nishith, Weaver, Astin, & Feuer, 2002). Two randomized clinical trials of other group treatments for PTSD that include imaginal exposure provide preliminary evidence of the persistence of treatment benefits up to 5 months post-treatment (Schnurr et al., 2003). However, participants in these trials were not incarcerated; it is unclear if incarceration might change trauma therapy's lasting effects.

In summary, while exposure-based PTSD treatments in general, including group treatments, show benefits to participants that persist many months following treatment ending, the persistence of SHARE, an exposure-based group treatment specifically developed to treat the sequelae of sexual violence victimization in incarcerated women, has not been evaluated. Given concerns some researchers have expressed with implementing exposure treatments in correctional settings (e.g., stressful environment, trauma triggers, and risk for revictimization; Miller & Najavits, 2012: Wolff et al., 2009), and the role untreated trauma sequelae can have in post-incarceration outcomes (Kubiak, 2004; Zlotnick et al., 2009), evaluating the longer-term benefits of such treatments is important. A first step is to look at whether the benefits persist after the group has ended while women remain incarcerated. The current study presents outcomes from women who completed the SHARE group treatment and provided follow-up data 2–6 months after treatment termination. We hypothesized positive treatment effects found at post-treatment (i.e., reductions in symptoms of PTSD and depression and in the percentage of participants above the clinical cutoff for probable PTSD and depression) would persist during the follow-up incarceration period.

Method

Setting

This study was conducted in a 120-bed minimum-security women's prison in a Mid-Southern state. Most residents are non-Latina White (~97%) per state-reported data, incarcerated on drug and/or financial felony charges, and serving sentences of 3 years or less. Residents are typically eligible for parole after serving one-third of their sentence,

making average durations of incarceration range between approximately 6 months and 3 years.

Participant Characteristics

Data were obtained between March 2014 and May 2019 from 134 incarcerated women across 27 different SHARE groups (mean = 4.96 women per group). A total of 116 women completed treatment (86.6% completion rate). The mean number of treatment completers per group was 4.30 (median = 4; range 1–8). Follow-up data were collected approximately 3 months after SHARE group treatment was completed from women who remained incarcerated (n = 57; 49.1% of treatment completers)[1]. The mean number of participants with follow-up data per group was 2.11 (median = 2; mode = 1; range 0–7). The follow-up period was on average 95.36 days (SD = 19.21; range 63 – 130). Figure 1 illustrates the reductions of participants from the initial 134 SHARE group participants to the 57 participants who comprise this study's analytic sample.

In the final analytic sample of 57, most women self-identified as non-Latina White (77.2%) with an average age of 32.80 years (SD = 8.90). The majority (82.5%) had at least one child. Thirty-nine participants (68.4%) reported that they had been in therapy before, most commonly individual therapy. Women who chose to participate in SHARE commonly had experienced multiple traumatic events, including more than one experience of sexual victimization. Using the Posttraumatic Diagnostic Scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997) to assess for 11 categories of potentially traumatic events showed that the current sample had experienced on average 6.4 traumatic events in their lifetime (SD = 2.71; mode = 4; range 2 – 11).[2] The most common traumatic event experiences were sexual abuse (86.5% endorsed sexual assault by known assailant and 83.8% child sexual abuse). Women were asked to pick one sexual trauma to focus within the context of the exposure they completed as part of SHARE (see below).

Procedure

This study was approved by the University of Arkansas Institutional Review Board and by the Arkansas Department of Community Corrections (DCC). SHARE has been offered in one facility within the DCC's purview since January 2012. Group members were recruited by announcements made by the groups leader(s) at mandatory facility-wide meetings. At these meetings, group leaders provided a brief description of the group and invite residents to join. SHARE was described as being for "women who have been victims of sexual assault or sexual abuse" and focusing on an opportunity to "learn what sexual trauma is, how people respond to it, how avoidance of the trauma impacts your life, and [to] work on…

[1]We originally planned to complete follow-up data collection within a window of 3- to 6-months after each SHARE group concluded. After six rounds of attempting follow-up at this interval, it became clear that most completers were no longer incarcerated or at the facility by this point. Thus, we amended our protocol to have planned follow-up occur approximately 2–3 months after completion of each group to increase the likelihood of being able to follow up with participants before they left the facility.

[2]We have collected data on the group outcomes continuously since the start of this project in January 2012. As the project has developed, there have been changes to the methodology. One such change was to start collecting pre-treatment data prior to the start of the groups. This change occurred after 25 groups (approximately 5 groups per year so this was 5 years after starting the groups). Data for the current manuscript was from groups 12 to 38. Follow-up data was collected starting with group number 5 but at that point we were using a screening measure for assessing PTSD symptoms. We started using a continuous measure for assessing PTSD for group 12. The measure of potentially traumatic events (PDS; Foa et al., 1997) was added to the protocol starting group 18.

healing from it." Group leaders provided behaviorally-specific examples of sexual assault within the announcement, provided basic psychoeducation, and described common fears about working through trauma. Residents who were interested were invited to submit a request to participate following the announcement. Referrals to the group were also made by facility staff. The only criteria that would make women ineligible for SHARE participation were not having experienced sexual violence, not speaking English, having a schedule conflict with the group time, or having significantly diminished cognitive capacity judged to interfere with SHARE participation (e.g., incapable of adhering to confidentiality, actively hallucinating).

Women who participate in SHARE are given the choice of whether to participate in completing research measures as part of their participation. No incentives were provided for participating in the research study. The same procedure was used for collecting pre-treatment data prior to the start of the group.[2] All data collection was done in a group format, in a private room, with group leaders explaining aloud the purpose of the data collection and women's choice to participate or not participate. Consenting women completed measures individually. At each time point, we used a double-consent procedure; participants provided written consent to participant prior to and immediately following completion of study measures. Participants could complete or decline participation in any wave of data collection.

For the first 13 groups, pre-treatment data were collected during session 1. Starting with group number 14, pre-treatment data were collected prior to the start of the group (mean number of days was 5.08, median =4; mode =3; range was 3–14 days prior to start of the group).[2] Post-treatment data were collected during the last group therapy session and follow-up data were collected 2–6 months after group had concluded. When it was time to collect follow-up data, the researchers contacted the facility treatment coordinator, who then arranged a meeting with prior group participants who were still in the facility.

Measures

PTSD.—Participants' PTSD symptoms were assessed using the PTSD Checklist. Two versions have been used over the years of data collection: the Posttraumatic Stress Disorder Checklist for DSM-IV – Civilian version (PCL-C; Weathers, Litz, Herman, Huska, & Keane, 1993), and the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5; Weathers et al., 2013). The PCL-C consists of 17 items with answer options ranging from 1 (*not at all*) to 5 (*extremely*) while the PCL-5 consists of 20 items with answer options ranging from 0 (*not at all*) to 4 (*extremely*). Both ask about PTSD symptoms in the past month but was modified to one week for the current study.[3] The differences between the two PCL versions reflect the changes to the *Diagnostic and Statistical Manual of Mental Disorders* from versions IV to 5. Moshier and colleagues (2019) have developed a method to translate the earlier version of the PCL scores (PCL-C) to the most recent version (PCL-5), which

[3]Another change that was made to the methodology over time was the time window indicated for some of the symptom measure. For the first 17 groups participants were asked to report on their depressive symptoms during the past two weeks (as in the original version of the PHQ-9). However, starting with group 18, participants were asked to report their symptoms in the past one week. Similarly, the time frame for the PCL measures also changed starting with group 18. Participants were asked to report symptoms from the past month for the PCL-C (groups 12 – 17) but the past week for the PCL-5 (groups 18 – 38).

was used in the current study. Sum scores for the PCL-C were calculated and then translated to comparable PCL-5 scores according to Moshier and colleagues' method. The clinical cutoff score of 38 was in the current study (Dickstein et al., 2015). Cronbach's α coefficients for the current study were between .85 and .95 on both versions of the PCL and across time points (PCL-C: pre, α = .95, n = 13; post, α = .85, n = 10; follow-up, α = .92, n = 6; PCL-5: pre, α = .94, n = 38; post, α = .94, n = 38; follow-up, α = .86, n = 50).

Depression.—Participants' depressive symptoms were assessed using the Patient Health Questionnaire 9 (PHQ-9; Kroenke, Spitzer, & Williams, 2001), which consists of nine items assessing a range of depressive symptoms occurring over the prior one or two weeks.[3] Each item is rated from 0 (*not at all*) to 3 (*nearly every day*). These items are summed for a total symptom severity score. The PHQ-9 has evidenced good reliability (test-retest $r = .84$) and validity (i.e., criterion and construct validity; Kroenke et al., 2001). Using a clinical cutoff of 10 or higher to index major depression is associated with 88% sensitivity and specificity (Kroenke et al., 2001). Cronbach's α coefficients for the current study were .85 (pre; n = 49), .86 (post; n = 49), and .73 (follow-up; n = 55).

Data Analysis

To examine the persistence of SHARE outcomes, we conducted two sets of analyses. First, we completed a one-way repeated measures analysis of variance with time point (pre-treatment, post-treatment, follow-up) as the within-subjects independent variable and symptom measure as the dependent variables. Secondly, we utilized McNemar tests to compare the proportion of participants at each time point who were at or above clinical cut-offs on the PCL and PHQ-9 (i.e., compared proportion at pre-treatment to proportion at post-treatment and proportion at post-treatment to proportion at follow-up). For participants with missing data on individual items of a measure, mean scores were created based on the items answered and then the mean was multiplied by number of items on the full measure (Mazza, Enders, & Ruehlman, 2015). For the PCL-C, this calculation was done prior to converting PCL-C scores to PCL-5 scores (Moshier et al., 2019).

Results

Preliminary Analyses

T-test and chi square analyses were used to assess whether there were systematic differences between women who did and who did not complete follow-up measures. First, when comparing treatment completers with ($n = 57$) and without ($n = 59$) follow-up data, we found no differences on any of the demographic variables. There was also no difference on the symptom measures at pre-or post-treatment. We also compared participants with follow-up data who had their pre-treatment data collected during session 1 ($n = 31$) to those who had it collected prior to session 1 ($n = 26$).[2] Again, there were no significant differences on any of the demographic or pre-treatment variables for the two groups.

Primary Analyses

Table 1 presents mean scores on symptom measures separately by assessment point and summarizes the results of analyses examining treatment persistence. Detailed results are presented by symptom type below.

PTSD Symptoms—Results from a one-way repeated measures ANOVA indicated a significant effect of time on PTSD symptom severity ($p < .001$) with a large effect size (partial $\eta^2 = 0.78$). Bonferroni pairwise comparisons showed significant reductions in PTSD symptom severity from pre- to post-treatment ($p < .001$), pre-treatment to follow-up ($p < .001$), and post-treatment to follow-up ($p = .001$). At pre-treatment, 32 of the 52 participants who provided data were at or above the clinical cutoff for probable PTSD. There was a significant reduction in the proportion of participants who were at or above the clinical cutoff for probable PTSD from pre- (61.5%) to post-treatment (12.0%), McNemar $p < .001$. At the follow-up assessment, only one participant (1.8%) was above the clinical cutoff, suggesting the reductions from pre-to post-treatment persisted during the follow-up period.

Depression Symptoms—Results from a one-way repeated measures ANOVA also indicated a significant impact of time on depressive symptom severity ($p < .001$) with a large effect size (partial $\eta^2 = 0.75$). Bonferroni pairwise comparisons showed significant reductions in depressive symptom severity from pre- to post-treatment ($p < .001$), pre-treatment to follow-up ($p < .001$), and post-treatment to follow-up ($p = .012$). At pre-treatment, 40 of the 52 participants who provided data were at or above the clinical cutoff for a probable depressive disorder. There was a significant reduction in the proportion of participants at or above the clinical cutoff from pre- (76.9%) to post-treatment (24.0%; McNemar $p < .001$) as well as from post-treatment (24.0%) to the follow-up assessment (10.7%; McNemar $p = .039$). See Table 1 for more details.

Discussion

Previous research on SHARE has demonstrated its promise as an effective treatment for sexual violence sequelae among incarcerated women. This study builds on past work by providing preliminary evidence that the declines in symptoms seen from pre- to post-participation in group therapy for sexual violence persist over a 2–6 month follow-up period.

Specifically, in women who participated in SHARE and remained incarcerated, we found that the significant reductions in PTSD and depressive symptoms evident at post-treatment continued during the follow-up period. These reductions were evident both in the analyses with continuous data as well as when examining the proportion of participants who were at or above the clinical cutoff at the three time points. Taken together, these results support our hypothesis that the positive treatment effects seen in prior evaluations of SHARE would persist during a follow-up period.

Consistent with other studies of sexual violence victims (e.g., Kaltman, Krupnick, Stockton, Hooper, & Green, 2005), we found SHARE group participants were more likely to evidence clinically elevated rates of depression compared to PTSD. The psychological sequelae of trauma exposure are diffuse and complex. It is common to see victims of trauma in

general, and sexual trauma in particular, struggle with a variety of difficulties including depressive disorders, anxiety disorders, adjustment disorders, substance use disorders, and traumatic stress disorders (e.g., Chen et al., 2010; Kaltman et al., 2005; Zlotnick et al., 2008). However, rates of participants who evidenced clinically elevated symptoms dropped by about 50% for both PTSD and depression from pre- to post-treatment and declined again by about 10% from post-treatment to follow-up, suggesting psychiatric benefits of SHARE group participation are not limited to traumatic stress symptoms but may be more global. The fact that declines were rapid during treatment and less dramatic during the follow-up period is consistent with an interpretation that the active treatment phase was important to reducing psychiatric symptoms (Kaltenbach et al., 2020). Furthermore, the declines exceeded average effect sizes for wait-list controls (Devilly & McFarlane, 2009).

The aforementioned results are encouraging, especially considering the relatively low treatment dose (i.e., eight 90-minute sessions) in a vulnerable sample who oftentimes present with complicated and extensive histories of interpersonal traumas (Baker et al., 2020). The overall rates of change from the SHARE participants are comparable to rates found in individual evidence-based treatments for trauma (Foa et al., 1999; 2005; Resick et al., 2002). They are also better than the rates found by research on longer trauma-focused group treatments that include an exposure component along with other material (Castillo et al., 2016; Schnurr et al., 2003). The outcomes from SHARE also outperform those from Seeking Safety (Najavits, 2002). This is evident both in terms of treatment effect size for PTSD symptoms (which was moderate for Seeking Safety [Wolff et al., 2012] and large for SHARE [Karlsson et al., 2014, 2015, 2020] in uncontrolled trials) and depressive symptoms (which did not significantly improve from pre- to post-treatment in Seeking Safety [Lynch et al., 2012]). Thus, SHARE is worthy of additional investigation in a randomized controlled trial.

The primary limitation of the current study is its open-label design, which limits our ability to assess whether SHARE participants' symptom profiles differ from those of women who did not participate in SHARE or examine whether SHARE is superior to treatment as usual or interventions that are not trauma-focused. We cannot rule out potential confounds such as the possibility that other programming in the facility contributed to our findings or had independent effects on symptom reductions. However, our prior work indicates that it is unlikely that PTSD symptoms continued to decline due to the passage of time alone (Bridges et al., 2021). Randomized control trials, wait list control groups, or multiple baseline studies would help more definitively answer the question of whether declines may be attributed to treatment or to the passage of time. Longitudinal research that follows participants post-release would also be of benefit and could examine whether symptom reductions persist and/or improve post-release mental health and legal outcomes. Lastly, the results cannot necessarily be generalized beyond the current sample and setting as it is possible that other incarcerated populations and other correctional facilities would differ from the current one in important ways. This would for instance suggest doing studies that include more ethnically and racially diverse samples of women as well as facilities with higher security classifications.

Conclusion

SHARE answers the call for integrating evidence-based treatments, such as those that are exposure-based, in prisons (Harner, Budescu, Gilllihan, Riely, & Foa, 2013). While more work (particularly, randomized controlled trials) is needed to establish the benefit of SHARE over other potential approaches to trauma treatment for incarcerated women, this study provides preliminary evidence that prison-delivered exposure-based group therapy may result in persistent improvements in posttraumatic stress and depressive symptoms—even with a relatively low intervention dose. Psychiatric symptoms like depression and PTSD are linked to recidivism (Zlotnick, et al., 2009), and being in prison may be associated with stress and adjustment difficulties, heightening negative affectivity (Moloney, et al., 2009). Promising programs such as SHARE can be delivered during the incarceration period and may produce sustained benefits while women remain incarcerated.

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Impact Statement

Incarcerated women represent a vulnerable and underserved group in society with high levels of interpersonal traumas, especially sexual traumas. Addressing these traumas while incarcerated can limit recidivism rates and improve integration into society. The current study shows that declines in depression and PTSD symptoms after participating in a brief sexual violence trauma-focused group treatment during incarceration persist up to three months post-treatment.

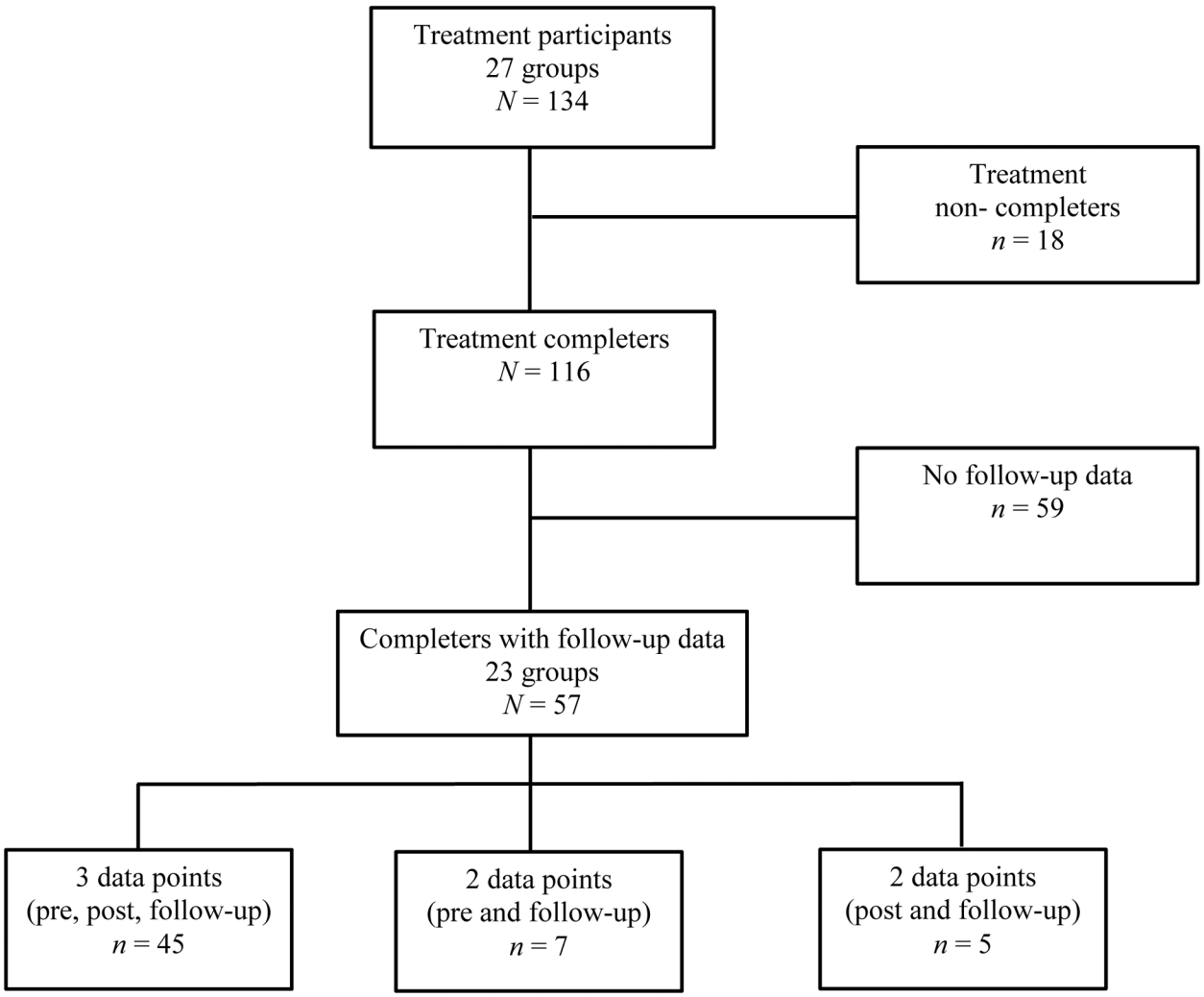

Figure 1.
Flow of Participants Showing the Inclusion and Exclusion Process.

Table 1

Pre, Post, and Follow-up Assessment Outcomes for Treatment Completers (N = 57).

Variable	Pre-Tx *M (SD)* or *N (%)*	Post-Tx *M (SD)* or *N (%)*	Follow-up *M (SD)* or *N (%)*	Test statistic	*p*-value	Partial η^2
PCL[a]						
Severity score	42.45 (18.67)	16.59 (14.50)	8.82 (6.86)	Wilks' Lambda = 0.22 $F(2, 43) = 74.98$	< .001	0.78
Above clinical cutoff (≥38)[b]	32/52 (61.5%)	6/50 (12.0%)		McNemar test ($N = 45$)	< .001	
Above clinical cutoff (≥38)[b]		6/50 (12.0%)	1/57 (1.8%)	McNemar test ($N = 50$)[c]		
PHQ-9[c]						
Severity score	13.53 (5.81)	6.15 (5.08)	3.86 (2.83)	Wilks' Lambda = 0.25 $F(2, 42) = 63.55$	< .001	0.75
Above clinical cutoff (≥10)	40/52 (76.9%)	12/50 (24.0%)		McNemar test ($N = 45$)	< .001	
Above clinical cutoff (≥10)		12/50 (24.0%)	6/56 (10.7%)	McNemar test ($N = 49$)	.039	

Notes: *M* = mean; *SD* = standard deviation; *n* = number of participants; *df* = degrees of freedom; PHQ-9 = patient health questionnaire for depression; PCL = PTSD checklist.

[a]= PCL severity scores are from the 45 participants with data from all three assessment points. The remaining 12 participants provided data at two assessment points only (7 with pre-treatment and follow-up and 5 with post-treatment and follow-up). PCL-C scores were converted to PCL-5 scores (Moshier et al., 2019) so these are the converted scores.

[b]= The cutoffs are based on the converted PCL scores (Moshier et al., 2019).

[c]= The McNemar test cannot be calculated due to missing data.

[d]= PHQ-9 severity scores are from the 44 participants with data from all three assessment points (45 participants had data on all three assessment points but one participant was missing PHQ-9 data at one of the assessment points). The remaining 12 participants provided data at two assessment points only (7 with pre-treatment and follow-up and 5 with post-treatment and follow-up).