BRIEF REPORT

Examining Strength at Home for Preventing Intimate Partner Violence in Civilians

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The Strength at Home (SAH) intervention, a trauma-informed, cognitive-behavioral intervention for intimate partner violence (IPV), was examined in a sample of court-mandated men. Evidence from prior research indicates that SAH is effective in military veterans but the program has not been examined in civilians. It was expected that SAH participants would evidence reductions in physical and psychological IPV, as well as secondary outcomes of post-traumatic stress disorder (PTSD) symptoms and alcohol use problems. Participants included 23 men court mandated to IPV intervention. The sample was low income and 72.7% had a reported prior history of severe physical IPV perpetration. Data from these participants and collateral partners were examined across assessments reflecting baseline, post-treatment, and two 3-month follow-ups. The outcome variables were assessed at each time point to examine change over time and a post-treatment satisfaction measure was also administered immediately following the intervention. Participants showed a significant linear decrease between baseline and post-treatment in all of the primary and secondary IPV outcomes, which maintained at 3- and 6-month follow-up time points. Effect sizes across models were moderate to large. Participants reported high satisfaction with SAH. Study findings provide preliminary support that the SAH intervention is associated with reductions in IPV among civilians and addresses other trauma- and alcohol-related problems. Further research including larger randomized controlled trials are needed to determine the efficacy of this intervention.

Keywords: intimate partner violence, trauma, IPV intervention, Strength at Home, abuse

Intimate partner violence (IPV) is a prevalent national public health problem with high costs to society (Centers for Disease Control & Prevention (CDC), 2003). One approach to preventing continued IPV is through IPV intervention programs that are most commonly used for court-referred men who engage in IPV. Unfortunately, to date, randomized controlled trials have shown limited efficacy for IPV interventions in general, even while large numbers of individuals are court mandated to such programs each year (Eckhardt et al., 2013). Recent evidence suggests that trauma-informed approaches aimed at enhancing social information processing may amplify the effectiveness of IPV intervention (e.g., Romero-Martínez et al., 2018). Likewise, a growing body of research supports the effectiveness of the Strength at Home (SAH) program, a trauma-informed group IPV intervention based on a social information processing model (Taft, Murphy, et al., 2016). Multiple pilot studies (Love et al., 2014; Taft et al., 2013), a randomized controlled trial (Berke et al., 2017; Creech et al., 2017; Taft, Macdonald, et al., 2016), and implementation studies (Creech et al., 2018; Hayes et al., 2015) indicate the effectiveness of SAH among military veterans. The current study represents an initial examination of the SAH intervention for reducing IPV and other associated problems in a court-mandated civilian sample reporting high levels of physical and psychological IPV.

SAH derives from a fusion of prior interventions for trauma and IPV that were developed in the civilian community context, integrating elements of cognitive processing therapy for PTSD (CPT; Resick & Schnicke, 1992) and cognitive behavioral interventions for IPV (Murphy & Scott, 1996). The program addresses biases and deficits across stages of social information processing from decoding a situation to choosing and evaluating a response (McFall, 1982), recognizing that trauma-related problems (post-traumatic...
stress disorder [PSTD], traumatic brain injury, depression, substance use) and underlying core themes (power and control, trust difficulties, low self-esteem, guilt and shame) affect decoding skills; response histories and expectations for situations, as well as self-efficacy and ability to consider costs and benefits, affect decision skills; skills deficits (communication, stress management, anger management) and social feedback responsiveness affect enactment skills, ultimately increasing IPV risk (see Taft, Murphy, et al., 2016). The program manual was written to be gender neutral, though is typically administered with groups of the same gender, as is common practice in the field to enhance safety. The intervention includes psychoeducational material on physical and sexual IPV as well as different forms of psychological IPV, such as domination, intimidation, denigration, coercive control, and hostile withdrawal behaviors. Group exercises and practice assignments are focused on recognizing core issues contributing to IPV, understanding anger and managing responses to potentially difficult situations, learning cognitive strategies to recognize and correct misinterpretations of others, and practicing communication skills. The role of trauma is discussed throughout the group while also emphasizing that all group members are ultimately accountable and responsible for their own behavior. Providing a group atmosphere where group members feel comfortable discussing negative prior experiences facilitates responsibility taking and lessens denial, minimization, and victim blaming (Taft, Murphy, et al., 2016).

SAH has demonstrated reductions in physical and psychological IPV, with particularly robust reductions in coercive and controlling behaviors, as well as violence recidivism, relative to an “enhanced treatment as usual” condition in a randomized controlled trial of 135 court-referred and self-referred military veterans (Taft, Macdonald, et al., 2016). Not only is the program effective for those with and without PSTD (Creech et al., 2017), but a prior implementation study showed that those who participated in the program reported reduced PTSD symptoms of PTSD (Creech et al., 2018).

The current study represents an initial examination of SAH delivered in a civilian context with a small sample of court-mandated men. While SAH has been shown to be a promising intervention in veteran samples, the program has not yet been examined in a sample of civilians. Given consistently demonstrated links between trauma-related problems and IPV across both veteran and civilian samples (Taft et al., 2011), we expected that participation in the program would be associated with significant reductions in physical and psychological IPV. We also hypothesized significant reductions in two secondary outcomes—PTSD symptoms and alcohol use problems—given prior findings and links between these problems and social information processing deficits (Creech et al., 2018; LaMotte et al., 2017).

Method

Participants were 23 men court mandated to IPV intervention through the Rhode Island Department of Parole and Probation. Inclusion criteria were (a) participants and their partners were over the age of 18 and (b) the participant provided consent to contact his intimate partner(s) (some individuals ended or began new relationships during the course of the study). Participants remained eligible to participate even if their partners declined to participate. The mean age of participants was 38.3 years (SD = 10.3) and their partners were 36.39 (11.50). The majority of participants (87%) and their partners (61.5%) identified as racial or ethnic minorities. Participants were entirely low income, based on state guidelines designating an annual salary of less than $31,166 as low-income. On average, participants completed 10.5 (SD = 2.0) years of education and their partners completed 11.85 years (SD = 2.12). The majority of participants (57.1%) reported being in a current relationship with the individual for whom they had the incident that referred them to the program. About 14.2% of the sample reported being married or engaged. Participants endorsed frequent and severe exposure to traumatic life events, for example, 82.6% reported experiencing physical assault with a weapon, and the same proportion reported exposure to more than one Criterion A event. Two-thirds of participants (66.7%) met the clinical cut-off for probable PTSD.

Measures

IPV over the past 3 months (for each time point) was assessed using the 12-item Physical Assault subscale and the 8-item Psychological Aggression subscale of the Revised Conflict Tactics Scales (CTS-2; Straus et al., 1996), as well as the 28-item Multidimensional Measure of Emotional Abuse (MMEA; Murphy & Hoover, 1999). To mitigate potential underreporting, participant and partner reports (when available) of IPV were compared and the highest endorsement was used in the calculation of scores. Variety (i.e., count) scores were calculated so that scores reflected the number of abusive behaviors that were positively endorsed (see Vega & O’Leary, 2007). PTSD symptoms over the past month were assessed using the 20-item PTSD Checklist for DSM-5 (PCL-5; Weathers et al., 2013) and a total summed score was created. Internal consistency in the current sample was excellent across all time points (α from .93 to .95). Alcohol use was measured using the 10-item Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993). Internal consistency ranged from acceptable to excellent across time points (α from .77 to .90). Treatment acceptability was assessed with the Client Satisfaction Questionnaire-8 (CSQ-8; Larsen et al., 1979) at post-treatment. Responses are summed with higher values indicative of higher satisfaction. Internal consistency in the current sample was acceptable (α = .71).

Procedure

This study received institutional review board approval at Rhode Island Hospital. A trained clinical psychologist completed the approved assessment procedures with participants. Prior to engaging in study activities, participants provided written informed consent and permission to contact their partners. To ensure confidentiality, participants were not informed of the details of their partners’ participation. Phone interviews were completed with partners by a psychologist or trained research assistant. Participants were offered the opportunity to create and/or review a safety plan with the interviewer and were provided local and national resources for IPV survivors. Participants and their collateral partners completed assessments at four time points: prior to engaging in treatment, at the completion of the 12-week intervention, 3 months after treatment completion, and 6 months after treatment completion. To ensure comprehension of assessments, participants were read aloud the instructions for each questionnaire; two participants expressed...
Discomfort with reading and were read aloud all questionnaire items. Participants were compensated $25 per assessment.

SAH was delivered in a closed group format with 12 weekly 2 hr sessions led by a doctoral-level therapist. Sessions included review and discussion of psychoeducational material, group activities, and practice assignments. The group is organized into four phases: (a) psychoeducation on IPV and common reactions to trauma; (b) conflict management skills; (c) coping strategies and negative thought patterns; and (d) communication skills. See Taft, Macdonald, et al. (2016), for more detailed information.

Data Analysis

We analyzed individual change with latent growth curve (LGC) modeling (Duncan et al., 1999) using Mplus (Version 8.1; Muthén & Muthén, 1998-2019). LGC has been successfully used with small samples and generates larger power compared with traditional approaches such as repeated measures analysis of variance (Delucchi & Bostrom, 1999). Full Information Maximum Likelihood with robust standard errors, which assumes data are missing at random, was used to deal with attrition and non-normality. We first tested a series of growth curve models to determine the shape of change trajectories. This iterative process revealed that piecewise LGC modeling best captured the data, with the exception of PTSD, which was best fit to a linear model. Across all models, the mean and variance of the intercepts and the means of slopes were freely estimated and the random slope variances were constrained to zero. We used a zero-inflated Poisson link function for count data (i.e., all violence outcomes). PCL5 and AUDIT scores were significantly skewed and transformed using square root transformations and log (x + 1) transformations, respectively. Model fit remained poor for the AUDIT; we conducted an analysis of residuals which indicated a high correlation (r = .80) between the 3- and 6-month follow-up periods, and we subsequently allowed those residuals to correlate. Effect sizes were estimated using Cohen’s d.

Results

Response and Attrition Rates

Forty-one individuals were referred to the program. Of the 41 referrals, 8 men were screened and determined to be ineligible, 9 did not complete the phone screen or baseline assessment and thus were not enrolled, and 1 participant declined to participate at the time of the phone screen. A total of 23 men screened as eligible, completed the baseline assessment, and were enrolled in the study. Of these 23 participants, one participant failed to engage in treatment following the baseline assessment. The remaining 22 participants were enrolled in one of three groups, each consisting of 5–9 participants per group. Of these participants, 18 completed treatment (i.e., attendance of 9 sessions or more), and 4 participants dropped out after attending between 1 and 8 sessions, resulting in a treatment drop-out rate of 18.2%. Regarding assessment completion, 18 participants completed the post-treatment assessment and 3-month follow-up assessment (78.3%), and 15 completed the 6-month follow-up assessment (65.2%). Fourteen partners (60.9%), all of whom identified as women, completed the baseline assessment. Of these, 11 (78.6%) completed the post-treatment assessment, 10 (71.4%) completed the 3-month follow up, and 6 (42.9%) completed the 6-month follow-up assessment.

Descriptive Statistics

Approximately 72.7% of couples reported that participants had perpetrated at least one incident of severe physical violence (i.e., choked, slammed, beat up, burned or scalded, kicked, punched or hit with something that could hurt, used a knife or gun). The proportion of couples reporting severe physical IPV occurring over the past 3 months reduced from baseline (45.5%) to 6-month follow-up (5.9%). Additionally, the proportion of couples reporting severe psychological IPV reduced from baseline (68%) to 6-month follow-up (41%). See Table 1 for means and standard deviations of all measures across time points.

It is possible that degree of access to partners affected levels of physical and psychological IPV. However, we found no significant correlation between amount of contact (over the past 3 months) with incident partners and either physical IPV (r = .081, p = .726) or psychological IPV (r = .017, p = .943) at baseline, nor did we find significant correlations between having a restraining order and IPV at any follow-up time point (ps > .05). Some participants developed new relationships over the study period; consequently, some participants completed IPV measures on their incident and current partners, and responses indicating the higher endorsement of IPV were used in analyses.

LGC Modeling

Summaries of the key results using LGC modeling, including effect sizes, are presented in Table 2. LGC analyses revealed that on average, participants showed a significant linear decrease in physical IPV between baseline and post-treatment, which maintained at 3- and 6-month follow-up time points. Participants demonstrated reductions in psychological IPV, based on both CTS2 and MMEA assessments. Specifically, participants showed a significant linear decrease in CTS2 psychological IPV scores between baseline and 3-month follow-up, which maintained at 6-month follow-up. Participants also showed a significant linear decrease in MMEA psychological IPV scores between baseline and 3-month follow-up, which maintained at 6-month follow-up.

PTSD symptoms and alcohol use problems similarly revealed decreasing scores across treatment and into the follow-up periods. Fit for the final models was excellent (alcohol severity: RMSEA = 0.000; CFI = 1.000; TLI = 1.023; PTSD severity: RMSEA = 0.000; CFI = 1.000; TLI = 1.038). Participants showed a significant linear decrease in alcohol severity between baseline and post-treatment, which maintained at 3- and 6-month follow-up. Participants also showed a significant linear decrease in PTSD severity across baseline, post-treatment, 3-month, and 6-month follow-ups. Effect sizes across models were moderate to large, ranging from d = .44 for PTSD severity to d = .79 for MMEA psychological IPV.

Treatment Acceptability

All participants attending the post-treatment assessment (n = 17) completed the CSQ-8. The mean total CSQ-8 score was 30.12 (SD = 2.17), indicating a high level of satisfaction with SAH services. Participants reported a number of helpful things about the program. Themes included feeling heard by other group members, increased sense of feeling comfortable expressing emotions openly, learning from the group facilitator and others members’
experiences, learning to take responsibility by way of group feedback, obtaining tools for better managing anger, and engaging in more effective communication and perspective taking.

**Discussion**

Findings from this study, though preliminary, suggest that SAH is associated with reductions in IPV perpetration among civilians, extending findings based on samples of military veterans (e.g., Taft, Macdonald, et al., 2016). Clinically significant reductions from pretreatment through follow-up in both physical and psychological IPV suggest that this trauma-informed intervention and its associated theoretical model hold promise for civilians exposed to trauma. Significant reductions in symptoms of PTSD extend some prior work (Creech et al., 2018) and suggest that program elements addressing trauma may exert benefits beyond reducing IPV, to also help mitigate symptoms of PTSD. Data also indicate that SAH may have similar benefits in reducing alcohol problem behaviors. Finally, treatment satisfaction data suggest that participants were highly satisfied with the program and believed the program helped them with their problems, which is particularly notable given that the current sample was entirely court referred and presumably lower in motivation at the outset of treatment compared with prior trials. Participants exhibited high program compliance, with a relatively low dropout rate (18.2%) compared with other studies (typical dropout rates from 22% to 99%; Daly & Pelowski, 2000).

Trauma-informed IPV research and intervention has often focused on military veterans, and all published research on SAH has been conducted with veterans and service members. While evidence suggests a slightly stronger link between PTSD and risk for IPV in veterans than civilians, this link is still robust in the latter population (Taft et al., 2011), and those referred to IPV intervention programs are likely to report a prior history of trauma such as childhood abuse and/or exposure to interpersonal violence (Maguire et al., 2015). The current study also suggests that trauma-informed social information processing models (Chemtob et al., 1997; Taft, Murphy, et al., 2016) have clinical applicability to civilians. For example, Chemtob et al. (1997) describe a “survival mode” of functioning experienced by combat veterans who learn to become hypervigilant due to life-threatening trauma exposures, which can lead to hostile response biases and aggressive behavior. Civilians exposed to violence, trauma, and life threat may similarly report negative interpretative styles that can impact social information processing and perceptions of one’s relationship partner, increasing risk for aggression (Taft et al., 2008).

It is notable that 87% of the sample identified as racial and/or ethnic minorities, with 52% identifying as African American and 48% as Latino. Trauma-informed approaches for IPV intervention may be particularly important for this population due to experiences of racism and historical trauma on top of other forms of trauma exposure (Taft et al., in press). We have recently argued that

### Table 1

**Means and Standard Deviations of Raw CTS2, MMEA, AUDIT, and PCL5 Scores (n = 23)**

<table>
<thead>
<tr>
<th>CTS2: Physical aggression</th>
<th>CTS2: Psychological aggression</th>
<th>MMEA: Psychological aggression</th>
<th>AUDIT: Hazardous drinking</th>
<th>PCL-5: PTSD severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretreat mean (SD)</td>
<td>Post-treat mean (SD)</td>
<td>3-mo FU Mean (SD)</td>
<td>6-mo FU mean (SD)</td>
<td></td>
</tr>
<tr>
<td>3.41 (3.69)</td>
<td>0.95 (1.90)</td>
<td>0.65 (1.66)</td>
<td>0.35 (1.22)</td>
<td></td>
</tr>
<tr>
<td>4.23 (2.78)</td>
<td>2.84 (2.57)</td>
<td>2.00 (2.10)</td>
<td>2.18 (2.24)</td>
<td></td>
</tr>
<tr>
<td>17.23 (9.32)</td>
<td>10.82 (8.34)</td>
<td>8.75 (7.64)</td>
<td>8.59 (7.98)</td>
<td></td>
</tr>
<tr>
<td>12.62 (10.58)</td>
<td>7.13 (7.72)</td>
<td>5.82 (6.20)</td>
<td>5.40 (7.47)</td>
<td></td>
</tr>
<tr>
<td>36.95 (20.15)</td>
<td>28.53 (20.05)</td>
<td>20.82 (20.63)</td>
<td>20.60 (19.16)</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2

**Summary of Estimated Means and Variances of Intercepts and Slopes for Piecewise and Linear Growth Models (n = 23)**

<table>
<thead>
<tr>
<th>CTS2: Physical aggression(^a)</th>
<th>CTS2: Psychological aggression(^a)</th>
<th>MMEA: Psychological aggression(^a)</th>
<th>AUDIT: Hazardous drinking(^b)</th>
<th>PCL-5: PTSD severity(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>S1(^a)</td>
<td>S2</td>
<td>Intercept</td>
<td>S1(^b)</td>
</tr>
<tr>
<td>Mean</td>
<td>1.35*** -0.93**</td>
<td>1.53*** -0.24**</td>
<td>2.80*** -0.34***</td>
<td>0.96*** -0.24**</td>
</tr>
<tr>
<td>(SE)</td>
<td>(0.24)</td>
<td>(0.36)</td>
<td>(0.14)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Variance</td>
<td>0.23</td>
<td>0.12</td>
<td>0.23*</td>
<td>0.13**</td>
</tr>
<tr>
<td>(SE)</td>
<td>0.16</td>
<td>0.07</td>
<td>0.09</td>
<td>(0.04)</td>
</tr>
<tr>
<td>d</td>
<td>0.54</td>
<td>0.63</td>
<td>0.79</td>
<td>0.66</td>
</tr>
</tbody>
</table>

**Note.** CTS2 = Conflict Tactics Scale 2. MMEA = Multidimensional Measure of Emotional Abuse. AUDIT = Alcohol Use Disorders Identification Test. PCL-5 = PTSD Checklist for DSM-5. PTSD = Posttraumatic Stress Disorder. Variances of slopes were fixed to zero because estimating variance freely did not improve or worsen model fit. Effect sizes were estimated using Cohen’s d.

\(^a\) Estimated using a Poisson link function for zero inflated count data.

\(^b\) Estimated using a linear growth model for continuous data.

\(^*p < .05. \ **p < .01. \ ***p < .001. \ "p < .000.\)
conceptualizations of trauma that do not account for daily experiences of racism are incomplete and do not fully capture the experiences of people of color (Taft et al., in press). Moreover, it may be particularly challenging to establish a trusting, collaborative relationship with individuals skeptical of mainstream, court-ordered intervention providers, though some evidence indicates that trauma-informed approaches may be particularly beneficial in overcoming these barriers (Taft et al., 2001). Considering that this sample was entirely low income and reported substantial histories of violence, findings of reductions in other problems beyond IPV are clinically important and suggest that this is a population with substantial treatment needs. Perhaps trauma-informed intervention such as SAH can serve as an entry point to addressing various trauma-related problems that may continue beyond the intervention period.

It is critical to emphasize that the current study was not a randomized controlled trial and therefore we cannot draw firm conclusions about the effectiveness of the intervention. We do not know the degree to which participants may have reduced their abusive behavior without intervention, nor do we know the impact of other factors such as fear of incarceration on reductions on violence recidivism. As with any other area of intervention, clinical trials remain the gold standard for determining program success. However, it is worth noting significant reductions across all outcomes in this relatively small sample. Medium-to-large effect sizes across our outcomes indicate improvements from approximately one-half to three-quarters of a standard deviation, suggesting that these findings are clinically significant. Findings also align with recent meta-analytic findings suggesting particularly strong effects for interventions that incorporate a trauma-informed approach (e.g., Karakurt et al., 2019). Study findings should lead to additional investigation into the efficacy of SAH and other trauma-informed interventions for civilians who engage in IPV. While the field has recently come to recognize the importance of prior trauma for this population, it is not clear the degree to which commonly delivered programs incorporate a truly trauma-informed approach into the program material. Addressing trauma inclusively defined may be particularly important for diverse samples exposed to higher rates of violence and historical trauma in the community (Taft et al., in press). There is every reason to believe that trauma-informed intervention will prove critically important for those who use IPV, as has been shown to be the case for a range of marginalized treatment populations (e.g., King, 2015).

References


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