Effects of Self-Compassion Workbook Training on Trauma-Related Guilt in a Sample of Homeless Veterans: A Pilot Study

Philip Held¹ and Gina P. Owens²

¹University of Missouri–St. Louis
²University of Tennessee

Objective: The present pilot study examined the effects of a 4-week-long self-administered self-compassion training on trauma-related guilt and compared it to a stress inoculation control group.

Method: A total of 47 homeless male veterans who were living in transitional housing facilities volunteered to participate in this study. Participants were randomly assigned to either a self-compassion (N = 13) or a stress inoculation (N = 14) group and were asked to complete pre-, mid-, and postintervention assessments measuring changes in self-compassion, trauma-related guilt, and posttraumatic stress disorder severity.

Results: Participants in both interventions reported increased levels of self-compassion and equal reductions in trauma-related guilt. No other significant changes were noted.

Conclusions: The results from this pilot study provide preliminary evidence for the use of self-compassion and stress inoculation trainings as effective interventions for trauma-related guilt. The findings also suggest that self-administered trainings in the form of workbooks may be a viable, cost-effective form of intervention for disadvantaged populations, such as homeless veterans in transitional housing, who may lack resources or access to professionals or paraprofessionals. The effects of both self-compassion training and stress inoculation training on the study variables and directions for future research on self-compassion and trauma-related guilt are discussed.

The Substance Abuse and Mental Health Services Administration (SAMHSA, 2011) has defined homelessness as living on the streets, being enrolled in a transitional housing program, or living in a shelter. According to SAMHSA (2011), roughly 1.5 million people experienced homelessness between 2009 and 2010 in the United States. Approximately 600,000 people are homeless on any given night and close to 110,000 people are thought to be “chronically homeless” (SAMHSA, 2011). People who are homeless often struggle with a multitude of mental health problems, including substance abuse and psychiatric illnesses (Shelton, Taylor, Bonner, & van den Bree, 2009). In fact, the existence of mental health problems and/or substance abuse has been identified as the main risk factor for homelessness (Foscarinis, 1996; Shelton et al., 2009).

One of the populations at increased risk of homelessness due to high levels of mental health problems are veterans, who represent approximately 15% of the sheltered homeless population (Fargo et al., 2012; U.S. Department of Housing and Urban Development & U.S. Department of Veterans Affairs, 2009). Research suggests that rates of homelessness among veterans will remain high unless underlying mental health problems that increase the risk of becoming and remaining homeless are resolved (cf. Iraq and Afghanistan Veterans of America, 2009). Older veterans, especially those from the Vietnam era, appear to be at the highest risk for chronic homelessness (Gamache, Rosenheck, & Tessler, 2001). As a result of chronic mental health problems and substance abuse issues, many homeless veterans struggle with reintegration into the workforce (Tsai, Mares, Rosenheck, & Rosenheck, 2012).

One mental health problem that is prevalent among veterans is posttraumatic stress disorder (PTSD). Veterans who struggle with PTSD are more likely than those without PTSD to report problems with their marriages and families (Jordan et al., 1992); legal issues (Kulka et al.,

Please address correspondence to: Philip Held, Center for Trauma Recovery, University of Missouri–St. Louis, St. Louis, MO 63121. E-mail: held.philip@gmail.com
PTSD and Trauma-Related Guilt

One risk factor for PTSD that is associated with increased symptom severity is trauma-related guilt (e.g., Held, Owens, Schumm, Chard, & Hansel, 2011; Street, Gibson, & Holohan, 2005). Despite the existence of advanced, evidence-based treatments for PTSD, such as cognitive processing therapy and prolonged exposure, studies have suggested that guilt cognitions may remain almost unchanged over the course of treatment despite reductions in PTSD and depression (Owens, Chard, & Cox, 2008). Consequently, cognitions and feelings of trauma-related guilt may continue to burden people who struggle with PTSD and potentially prevent them from being able to fully recover (Kubany & Watson, 2003), which may ultimately contribute to continual homelessness (Iraq and Afghanistan Veterans of America, 2009). Thus, it seems appropriate to examine whether existing treatments could be enhanced by improving current interventions for trauma-related guilt or by introducing new guilt-altering techniques (Held et al., 2011).

Self-Compassion

One potentially guilt-altering technique that was investigated in the present study is self-compassion. In principle, self-compassion is compassion directed toward oneself. Compassion has been defined as being moved by suffering while understanding that it is part of human life and desiring and being motivated to reduce or alleviate suffering (Gilbert, 2013). Self-compassion comprises three parts: (a) mindful awareness of one's own experiences, (b) developing an understanding that suffering is part of the human condition, and (c) directing verbal and physical kindness toward oneself (Neff, 2003a). Self-compassion has been consistently associated with well-being and reductions in anxiety and depression in prior literature (Neff, Kilpatrick, & Rude, 2007). The results of a study that examined negative life events showed that those who were more self-compassionate reported less anxiety and self-consciousness when thinking about their struggles (Leary, Tate, Adams, Allen, & Hancock, 2007). People who were more self-compassionate had a better perspective on their problem and were less likely to feel alone with their problems compared to people who were less self-compassionate (Leary et al., 2007).

Further, self-compassion practice has been described as a way to activate the innate soothing and self-regulating functions (Gilbert, 2013), which may help balance out an overactive threat system, which is commonly associated with posttraumatic stress (Lee & James, 2013). Translating these results to homeless veterans could mean that if veterans were more self-compassionate with themselves, then they would be able to feel less overwhelmed by their problems and might be better able to extract meaning from their experiences. Further, self-compassion could function as a protective factor for people who suffer from trauma, as it may reduce comorbid symptoms of depression and anxiety.

To date, little is known about the role of self-compassion as a protective factor for trauma (Briere, 2012). Research comparing the effects of cognitive-behavioral therapy (CBT) for posttraumatic stress disorder (PTSD) to a combination of CBT and compassionate mind training (CMT) found that people reported similar relief on all trauma-related measures in both conditions, and people who also received CMT reported significantly more self-compassion (Beaumont, Galpin, & Jenkins, 2012). Results from another study that investigated the effects of self-compassion on PTSD suggested that self-compassion was associated with a reduction in the avoidance symptom cluster of PTSD (Thompson & Waltz, 2008). Because trauma-related guilt has been identified as a relatively common stuck point in the processing of traumatic experiences, it is worth examining whether self-compassion may aid in working through guilt cognitions and...
feelings. Specifically, it seems plausible that self-compassion training could help veterans with gaining a broader perspective as a result of learning about common humanity (Leary et al., 2007).

Additionally, one aspect of self-compassion is self-forgiveness (Neff, 2003b), which may further assist in the adaptive processing of trauma-related guilt. As a result, self-compassion may aid in resolving maladaptive cognitions of trauma-related guilt as the negative beliefs about the self would be approached from a place of love, kindness, understanding, and care, rather than self-criticism. One study that examined the effects of self-compassion on shame and self-criticism found a negative association between the two concepts (Gilbert & Procter, 2006). The practice of self-compassion could help veterans move past some of their stuck points by compassionately challenging thinking errors and reach a place of forgiveness, which has been associated with reductions in both guilt and shame (Kubany & Watson, 2003), without necessarily having to directly process the traumatic experience. Consequently, it may be possible to consider self-compassion as a support intervention for evidence-based practices for PTSD, such as cognitive processing therapy and prolonged exposure therapy.

The Present Study

The purpose of this pilot study was to examine whether self-compassion training has an effect on trauma-related guilt cognitions and PTSD severity. Given the positive effects of self-compassion practice described above, we hypothesized that self-compassion may have protective properties for the development and maintenance of trauma-related guilt and PTSD more broadly. Specifically, we hypothesized that participation in a 4-week-long self-administered training on self-compassion will (a) increase veterans’ levels of self-compassion and (b) decrease veterans’ levels of trauma-related guilt cognitions. We also set out to explore the effects that the self-administered self-compassion training has on PTSD.

Further, we hypothesized that people who practiced self-compassion would have a significantly greater increase in self-compassion and a significantly greater decrease in trauma-related guilt, and PTSD severity compared to people in a stress inoculation control group, who practiced relaxation and stress reduction techniques in a similar format. Finding alternate ways of reducing trauma-related guilt is paramount in helping veterans to effectively work through and process their traumatic experiences and to be able to live more fulfilled lives. In the long-term, improving cost-effective ways to reduce mental health problems may also aid in lowering levels of homelessness among veterans.

Method

Participants

The data for the present study were collected at a transitional housing facility for homeless male veterans in the southeastern region of the United States. A total of 47 male veterans were initially recruited for participation through verbal announcements at the organization. The only inclusion requirement was a sixth-grade reading level, which was necessary to understand the content of the self-compassion and stress inoculation workbooks. Participants were asked to commit to participate in this study for 4 weeks while continuing to receive services-as-usual (i.e., psychotherapy, medication, or both through a local VA Outpatient Clinic, as well as daily spirituality groups and 12-step meetings through the transitional housing facility).

Over the 4-week intervention period, 43% of the participants dropped out and did not return for the postintervention assessment, leaving a sample of 27 veterans who completed all three assessments. Reasons for not continuing to participate were not provided by the veterans who left the study. However, it is worth noting that some participants who dropped out of the study also left the transitional housing facilities altogether. The mean age of the sample that completed all three assessments ($N = 27$) was 51.30 (standard deviation $[SD] = 8.421$, range 33–64). Regarding ethnic identification, 81% were Caucasian, 15% African American, and 4% Native American. In the sample, 37% reported being divorced, 30% single, 22% separated, and 11% widowed.
Table 1
Trauma History Screen Results

<table>
<thead>
<tr>
<th>Reported trauma</th>
<th>Experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudden move or loss of home and possessions</td>
<td>82%</td>
</tr>
<tr>
<td>Sudden death of close family or friend</td>
<td>78%</td>
</tr>
<tr>
<td>Seeing someone die suddenly or get badly hurt or killed</td>
<td>63%</td>
</tr>
<tr>
<td>Suddenly abandoned by spouse, partner, parent, or family</td>
<td>56%</td>
</tr>
<tr>
<td>Attacked with a gun, knife, or weapon</td>
<td>56%</td>
</tr>
<tr>
<td>A really bad car, boat, train, or airplane accident</td>
<td>52%</td>
</tr>
<tr>
<td>During military service seeing something horrible or being really scared</td>
<td>48%</td>
</tr>
<tr>
<td>A really bad accident at work or home</td>
<td>41%</td>
</tr>
<tr>
<td>A hurricane, flood, earthquake, tornado, or fire</td>
<td>41%</td>
</tr>
<tr>
<td>Hit or kicked hard enough to injure as an adult</td>
<td>41%</td>
</tr>
<tr>
<td>Some other sudden event that made you feel very scared, helpless, or horrified</td>
<td>41%</td>
</tr>
<tr>
<td>Hit or kicked hard enough to injure as a child</td>
<td>37%</td>
</tr>
<tr>
<td>Forced or made to have sexual contact as a child</td>
<td>7%</td>
</tr>
</tbody>
</table>

Regarding employment status, 78% reported being unemployed, 15% employed full-time, and 7% students. Regarding education, 48% reported being a “high school graduate,” 37% had “some college,” 7% “some high school,” 4% “college degree,” and 4% “graduate/professional degree.”

Of the 27 veterans in the sample, 56% had served in the Army, 22% Air Force, 18% Navy, and 4% Marine Corps; 96% reported having served on Active Duty, 11% Reserves, and 7% National Guard. Regarding service era, 37% reported having served during the Vietnam War, 22% post-Vietnam War, 26% Persian Gulf War, 4% Operation Enduring Freedom, and 15% served in “Other” service eras, which the participants specified themselves. Participants could select multiple service eras. Of all the veterans in the initial sample, 44% had never deployed, 26% deployed once, 19% deployed twice, 4% deployed three times, and 7% chose not to answer this question. The average deployment length was 5 months, with a range of 0 to 18 months. Of the veterans, 96% reported having been enlisted personnel and 4% Warrant Officers.

A number of the homeless veterans in the sample reported substance use problems, including alcohol (67%), depressants other than alcohol (22%), stimulants (22%), opioids (7%), and hallucinogens (4%). The time frame that participants had been abstinent from alcohol or drugs ranged from 0 months to 24 years (median = 8 months). On average, participants in the present sample had spent 7 months at the transitional housing facility, with a range of 0 months to 1.76 years. The veterans were also asked to indicate as many traumas as they had experienced (see Table 1). All veterans reported at least one traumatic event on the Trauma History Screen, and were asked to complete the Trauma-Related Guilt Inventory and the PTSD Checklist based on the most disturbing event.

Measures

**Demographic Questionnaire.** Participants responded to items related to age, ethnicity, education level, relationship status, service branch, last military rank, service era, years since military service, current length of abstinence from alcohol and drugs, and current length of stay with the organization.

**Trauma History Screen (THS; Carlson et al., 2011).** The THS is a 14-item self-report measure used to assess participants’ trauma histories, in particular, 14 different traumatic events. Respondents are asked to indicate whether an incident has occurred by checking “yes” or “no” and stating the number of times they have experienced the event. Respondents are also asked to indicate whether an event was “traumatic” and to briefly describe what happened (Carlson
The THS has good internal consistency reliability, ranging from .60 to 1.00 (Carlson et al., 2011), and was highly correlated with measures of combat exposure and traumatic life events, reflecting strong content validity, construct validity, and convergent validity (Carlson et al., 2011).

**Self-Compassion Scale (SCS; Neff, 2003a).** The SCS is a 26-item self-report measure used to determine the participant’s level of self-compassion. The SCS comprises six subscales: Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-Identification. The subscales Self-Judgment, Isolation, and Over-Identification are reverse-scored. Respondents are asked to rate how often they behave in the stated manners on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). Total scores on the SCS range from 26 to 130, with higher scores indicating greater self-compassion. Sample items for the SCS are “I am kind to myself when I experience suffering” (Self-Kindness) and “I try to see my failings as part of the human condition” (Common Humanity). The SCS has high internal consistency reliability of .92, with its subscales ranging from .75 to .81 (Neff, 2003a).

The SCS scales were highly correlated with measures of life satisfaction, depression, anxiety, and perfectionism (Neff, 2003a), reflecting strong content validity, construct validity, and convergent validity, and were used with different samples and cultures (e.g., Neff, 2003a; Neff, Pisitsungkagarn, & Hsieh, 2008; Neff & Vonk, 2009). Internal consistency reliabilities for the pre-, mid-, and postassessment for the present sample were .85, .75, and .87, respectively. Test-retest reliability for the SCS in this study ranged between .73 and .88. Only the total score on the SCS was used for the present study. To our knowledge this measure has not previously been used with either veterans or homeless people.

**Trauma-Related Guilt Inventory (TRGI; Kubany et al., 1996).** The TRGI is a 32-item self-report measure designed to assess event-specific cognitions and feelings of guilt. The TRGI comprises three scales: Global Guilt, Distress, and Guilt Cognitions. The Guilt Cognitions scale has three subscales: Hindsight Bias/Responsibility, Wrongdoing, and Lack of Justification. Respondents were asked to rate their feelings about the statements on a 5-point scale ranging from 1 (*not at all true or never true*) to 5 (*extremely true or always true*). Total scores on the TRGI range from 32 to 160, with higher scores on the TRGI indicating greater trauma-related guilt. Sample items for the TRGI are “I experience intense guilt related to what happened” (Global Guilt) and “I was responsible for what happened” (Guilt Cognitions). The TRGI has high internal consistency reliability, with its scales ranging from .86 to .90, and its subscales ranging from .67 to .82 (Kubany et al., 1996).

The TRGI was significantly correlated with measures of trait guilt, social anxiety and avoidance, and self-esteem (Kubany et al., 1996), reflecting strong content validity, construct validity, and convergent validity. The TRGI was validated with different samples of trauma survivors including veterans (Kubany et al., 1996). Internal consistency reliabilities for the pre-, mid-, and postassessment for the present sample were .73, .86, and .87, respectively. Test-retest reliability for the TRGI in this study ranged between .76 and .87. Only the total trauma-related guilt cognition score was used for the present study to focus specifically on the changes in beliefs that occur as a result of the self-compassion training. To our knowledge this measure has not previously been used with the homeless population.

**PTSD Checklist–Specific Stressor Version (PCL-S; Weathers, Litz, Herman, Huska, & Keane, 1993).** The PCL-S is a 17-item self-report measure that assesses symptoms of PTSD. Respondents were asked to report “how much each problem has bothered them during the past week” on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*). Total scores on the PCL-S range from 17 to 85, with higher scores on the PCL-S indicating greater PTSD severity. The PCL-S has good internal consistency, ranging from .89 to .92, and other research has also supported the validity of the PCL-S (Weathers et al., 1993). Internal consistency reliabilities for the pre-, mid-, and postassessment for the present sample were .94, .94, and .95, respectively. Test-retest reliability for the PCL-S in this study ranged between .71 and .85.
Procedure

After the participants were recruited, they were randomly assigned to either the self-compassion \((N = 13)\) or the stress inoculation \((N = 14)\) intervention. The workbooks for both interventions were designed in a way that participants could read along without requiring a professional or paraprofessional to guide them. During the initial meeting, participants in both groups were asked to read indicated workbook sections and practice the exercises for at least 5-15 minutes daily. The self-compassion workbook included exercises commonly used in self-compassion trainings (Gilbert & Procter, 2006; Neff, 2011, 2012), such as awareness of present moment experiences, learning to respond compassionately to one's own experiences, compassionate letter writing, and using self-compassion as a motivator.

The stress inoculation workbook included exercises commonly used during stress inoculation training, such as deep breathing, progressive muscle relaxation, safe place visualization, and distraction. Both interventions contained an exercise that encouraged participants to become more aware of the present moment. To avoid overlapping the construct of mindful breathing, which is a component of both self-compassion and stress inoculation interventions, we decided to structure the awareness exercise in the self-compassion intervention similar to insight-oriented exercises commonly found in cognitive-behavioral treatments (e.g., ABC sheets), whereas the stress inoculation intervention contained a pure deep breathing exercise.

At the end of the intervention, research assistants verified that the workbooks were used (i.e., that participants filled out their daily exercise experiences) but did not read what participants wrote to insure privacy. Participants were asked to complete three separate assessment batteries. The assessments were administered prior to the 4-week intervention, 2 weeks after starting the intervention, and upon its completion. The assessment batteries were identical for both groups. Participants were compensated at the postintervention assessment for their participation with a $20 gift card to a local merchant. The study protocol was approved by the university institutional review board.

Results

Means and standard deviations of all study variables can be found in Table 2. To test hypotheses 1–3 stated above, a repeated measures multivariate analysis of variance (MANOVA) was performed to test the study hypothesis that participants in the self-compassion group would have higher levels of self-compassion, lower levels of guilt, and PTSD over time than participants in the stress inoculation group. Both groups had similar demographics. Trauma-related guilt cognition scores preintervention, however, were significantly lower in the stress inoculation group \((M = 49.67)\) compared to the self-compassion group \((M = 71.17; t = 2.179, p = .04, d = .89)\).

Table 2

<table>
<thead>
<tr>
<th>Scale</th>
<th>Self-compassion ((N = 13))</th>
<th>Stress inoculation ((N = 14))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre Mean ((SD))</td>
<td>Mid Mean ((SD))</td>
</tr>
<tr>
<td>SCS</td>
<td>70.15 (13.807)</td>
<td>72.46 (9.439)</td>
</tr>
<tr>
<td>TRGI</td>
<td>69.69 (23.467)</td>
<td>78.69 (23.803)</td>
</tr>
</tbody>
</table>

* Significant differences from pre to post.
† Significant differences from mid to post.
All significance levels are \(p = .01\) or higher.

Note. SD = standard deviation; SCS = Self-Compassion Scale; TRGI = Trauma-Related Guilt Inventory; PCL-S = PTSD Checklist–Specific Stressor Version.
Results of the repeated measures MANOVA yielded significant main effects for time, intervention, and the interaction, time by intervention. Mauchly’s sphericity test for the study variables self-compassion, trauma-related guilt, and PTSD severity indicated that the assumption of sphericity had not been violated (all p-values were nonsignificant). Examination of univariate within-subjects effects indicated that significant differences across time for self-compassion, $F(2, 44) = 3.983$, $p = .026$, partial $\eta^2 = .153$, and trauma-related guilt, $F(2, 44) = 28.431$, $p < .001$, partial $\eta^2 = .564$. The interaction between time and intervention was significant for trauma-related guilt, $F(2, 44) = 4.861$, $p = .012$, partial $\eta^2 = .181$ (Figure 1), and PTSD severity, $F(2, 44) = 6.578$, $p = .003$, partial $\eta^2 = .230$ (Figure 2).

Univariate between-subjects effects indicated a significant difference between intervention groups on trauma-related guilt, $F(1, 22) = 12.718$, $p = .002$, partial $\eta^2 = .366$, but none of the other dependent variables of interest. Bonferroni adjustments were performed to determine the significance of mean differences. To further explore significant findings for main effects between intervention groups at different time points, a series of one-way ANOVAs was conducted. To explore significant interaction effects, a series of repeated-measures ANOVAs for each intervention were performed. The results from both follow-up analyses will be detailed by variable below.

Hypothesis 1: Self-Compassion

Hypothesis 1 explored whether participation in either the self-compassion training or the stress inoculation control would significantly increase veterans’ levels of self-compassion. Self-compassion was significantly different at the three time points, $F(2, 44) = 3.983$, $p = .026$, 

![Figure 1. Trauma-related guilt interaction effects between intervention and time.](image1)

Note. SC = self-compassion training; SI = stress inoculation training.

![Figure 2. PTSD severity interaction effects between intervention and time.](image2)

Note. SC = self-compassion training; SI = stress inoculation training.
partial $\eta^2 = .153$. There was a significant increase in self-compassion from the preintervention ($M = 72.00, 95\% \text{ CI} [66.32, 77.68]$) to the postintervention assessment ($M = 76.46, 95\% \text{ CI} [71.34, 81.58]$), $p = .019, d = 1.033$. There was no statistically significant interaction between the interventions and time of assessments, $F(2, 44) = .526, p = .594$, partial $\eta^2 = .023$.

**Hypothesis 2: Trauma-Related Guilt**

Hypothesis 2 investigated whether participation in either the self-compassion or the stress inoculation training would decrease veterans’ levels of trauma-related guilt cognitions. Trauma-related guilt cognitions were statistically significantly different at the three time points, $F(2, 44) = 28.431, p < .001$, partial $\eta^2 = .361$. There was a significant decrease in trauma-related guilt from the pre- ($M = 60.42, 95\% \text{ CI} [50.19, 70.64]$) to postintervention assessment ($M = 39.750, 95\% \text{ CI} [32.73, 46.77]$), $p < .001, d = 2.792$, as well as from the mid- ($M = 60.13, 95\% \text{ CI} [50.50, 69.75]$) to postintervention assessment, $p < .001, d = 2.732$.

There was a significant between-subjects effect for the intervention used, $F(1, 22) = 12.718, p = .002$, partial $\eta^2 = .366$. Statistically significant differences in trauma-related guilt cognitions were detected for the midintervention assessment, $F(2, 24) = 13.553, p = .001$, partial $\eta^2 = .361$, and the postintervention assessments, $F(2, 25) = 5.303, p = .030$, partial $\eta^2 = .175$. Trauma related guilt cognitions were significantly higher in the self-compassion intervention compared to the stress inoculation intervention at the mid- (self-compassion midassessment: $M = 78.69, SD = 23.803$; stress inoculation midassessment: $M = 44.08, SD = 24.140$, respectively; $d = 1.444$) and postassessments (self-compassion postassessment: $M = 50.54, SD = 17.453$; stress inoculation postassessment: $M = 41.74, SD = 20.652$, respectively; $d = .460$).

There was a statistically significant interaction between the interventions and time of assessments, $F(2, 44) = 4.861, p = .012$, partial $\eta^2 = .181$ (Figure 1). For the self-compassion intervention, trauma-related guilt cognitions were statistically significantly different at the three time points, $F(2, 22) = 24.703, p < .001$, partial $\eta^2 = .692$. There was a significant decrease in trauma-related guilt cognitions from the pre- ($M = 71.17, 95\% \text{ CI} [56.01, 86.33]$) to postintervention assessment ($M = 51.750, 95\% \text{ CI} [40.537, 62.963]$), $p = .001, d = 1.56$, and from the mid- ($M = 79.92, 95\% \text{ CI} [64.40, 95.44]$) to postintervention assessment, $p < .001, d = 4.399$. There was also a nonsignificant increase in trauma-related guilt cognitions from the pre- to midintervention assessment ($p = .309, d = .619$).

For the stress inoculation intervention, trauma-related guilt was statistically significantly different at the three time points, $F(2, 22) = 10.668, p = .001$, partial $\eta^2 = .492$. There was a significant decrease in trauma-related guilt from the preintervention ($M = 49.67, 95\% \text{ CI} [34.13, 65.20]$) to the postintervention assessment ($M = 27.75, 95\% \text{ CI} [17.94, 37.56]$), $p = .011, d = 1.575$.

**Hypothesis 3: PTSD Severity**

Hypothesis 3 investigated whether participation in either the self-compassion or the stress inoculation training would decrease veterans’ PTSD severity. PTSD severity was not statistically significantly different at the three time points, $F(2, 44) = 1.390, p = .260$, partial $\eta^2 = .059$.

There was a between-subjects effect for the intervention used, $F(2, 44) = 6.578, p = .003$, partial $\eta^2 = .230$. No statistically significant differences in PTSD severity were detected for the pre-, mid-, or postassessments, $F(2, 25) = .000, p = .996$, partial $\eta^2 = .000; F(2, 24) = 2.259, p = .146$, partial $\eta^2 = .086; F(2, 25) = 2.097, p = .160$, partial $\eta^2 = .077$; respectively; levels of PTSD severity were not significantly different in the self-compassion intervention compared to the stress inoculation intervention.

There was a statistically significant interaction between the interventions and time of assessments, $F(2, 44) = 6.578, p = .003$, partial $\eta^2 = .230$ (Figure 2). For the self-compassion intervention, PTSD severity was not statistically significantly different at the three time points, $F(2, 22) = 2.876, p = .078$, partial $\eta^2 = .207$.

For the stress inoculation intervention, PTSD severity was statistically significantly different at the three time points, $F(2, 22) = 5.334, p = .013$, partial $\eta^2 = .327$. There was a
Self-Compassion and Trauma-Related Guilt

borderline significant decrease in PTSD severity from the preintervention ($M = 49.00$, $95\%$ CI $[39.84, 58.16]$) and postintervention assessment ($M = 44.08$, $95\%$ CI $[34.82, 53.35]$), $p = .052$, $d = 1.273$.

Discussion

Previous research indicated that trauma-related guilt tends to remain unchanged in patients’ treatment for PTSD despite significant reductions in PTSD symptom severity (Owens et al., 2008). Because self-compassion has already been negatively associated with PTSD (Thompson & Waltz, 2008), anxiety and depression (Neff, 2012; Neff & Germer, 2013; Neff et al., 2007), and reduced shame and self-criticism (Gilbert & Procter, 2006), the goal of this pilot study was to determine the effects of self-compassion workbook training on self-compassion levels, trauma-related guilt cognitions, and PTSD severity. We also compared the results to a stress inoculation control. The present study yields important findings that add to the current literature on self-compassion and trauma-related guilt.

Overall, results suggested that levels of self-compassion increased for participants in both groups over the course of 4 weeks. Although the hypothesis that practicing self-compassion increases participants’ abilities to be compassionate, kind, and caring with themselves to a greater extent than stress inoculation was not supported, self-compassion training was also not inferior to the control intervention with regards to levels of self-compassion. These results suggest that practicing either self-compassion or deep breathing and other relaxation exercises for 4 weeks does appear to increase the ability to be self-compassionate.

One possible explanation for the increased ability to be self-compassionate after beginning to practice relaxation exercises is that the effective practice of these techniques may give people hope that change is possible, which, in turn, allows them to be kinder with themselves. It is noteworthy that other self-compassion trainings (e.g., Gilbert & Procter, 2006; Neff & Germer, 2013) commonly include mindful breathing or other relaxation exercises. The self-compassion training in this study did not include mindful breathing exercises, whereas the stress inoculation control intervention did. While finding that participation in either intervention increased participants’ levels of self-compassion was surprising, this result may be explained by the potential overlap in underlying constructs and techniques.

Over the course of the 4-week intervention, veterans’ trauma-related guilt cognitions reduced significantly for the entire sample. By the end of the study, veterans’ mean scores of trauma-related guilt dropped 20 raw score points on the TRGI (pre: $M = 60.42$; post: $M = 39.75$), regardless of the intervention they received. Interestingly, trauma-related guilt remained mostly unchanged over the first two weeks. After the first two weeks, trauma-related guilt cognitions significantly dropped below those reported during the preassessment.

For participants in the self-compassion intervention, trauma-related guilt cognitions increased slightly from pre- to midintervention assessment (pre: $M = 71.17$; mid: $M = 79.92$). A possible explanation for this pattern is the content of the self-compassion training workbook. During the first two weeks, participants learned to become more aware of their emotions and negative self-talk, which may have led to an increased awareness of their cognitions and feelings of guilt. For participants in the stress inoculation intervention, the aforementioned pattern may be explained by the fact that newly acquired coping skills, such as deep breathing or progressive muscle relaxation, take practice and time to work effectively.

The drastic reduction in trauma-related guilt cognitions between the mid- and postintervention assessments of 20 raw score points on the TRGI and an overall significant reduction in levels of trauma-related guilt ($p < .001$, $d = 4.399$) in only 4 weeks highlights the effectiveness of self-compassion as a possible intervention for trauma-related guilt. Conducting follow-up assessment could further support the notion that self-compassion is an effective approach to reducing trauma-related guilt that has lasting effects beyond the time individuals spend practicing the exercises in their workbooks. As described above, participants in the stress inoculation treatment condition reported a steady reduction in levels of trauma-related guilt. These findings are consistent with previous research, which reported a positive effect of general relaxation training on trauma-related guilt (Stapleton, Taylor, & Asmundson, 2006).
No significant changes in PTSD severity over time were associated with either treatment condition. However, participants who were assigned to the stress inoculation treatment condition reported borderline significant reductions in PTSD severity in the first two weeks of the intervention. These findings are in line with previous research on relaxation training, which has found stress inoculation to be effective at reducing levels of PTSD (e.g., Taylor et al., 2003). There was no significant change in PTSD severity for participants who were asked to practice self-compassion over the course of 4 weeks, although it is noteworthy that self-reported PTSD severity increased nonsignificantly from pre- \( M = 47.58 \) to postintervention \( M = 54.17 \); \( p = .196, d = .799 \) One possible explanation for this increase might be that the encouragement to become more aware of one’s thoughts and feelings interrupted avoidance coping strategies, which may have contributed to lower PTSD severity levels reported at intake.

Although previous research found that people with PTSD tended to have lower levels of self-compassion than those without PTSD (Thompson & Waltz, 2008), the specific relationship between the two variables remains unclear because of the correlational design of the study. It is possible that positive changes in self-compassion lead to reductions in PTSD in the long term. However, because of the brevity of the interventions used in this pilot study, it is possible that potential changes that may occur after prolonged practice of self-compassion were not detected. Future studies that investigate the effects of self-compassion training on PTSD severity should therefore conduct a follow-up assessment, examining levels of PTSD postintervention.

Given the established relationship between trauma-related guilt and PTSD severity (Held et al., 2011), it is interesting that individuals reported a significant decrease in trauma-related guilt cognitions without noticing a reduction in PTSD severity. These findings are in line with third-wave cognitive approaches (Gilbert, 2013; Hayes, Strosahl, & Wilson, 2003), which emphasize that the goal of treatment is not symptom reduction per se, but rather a change in how people relate to their thoughts and feelings, as this is what will ultimately improve their quality of life.

Overall, the results from this pilot study are a valuable addition to the existing literature on the effects of self-compassion and stress inoculation trainings on trauma-related guilt. The aforementioned findings support the notion that self-compassion and stress inoculation trainings can be effectively delivered in the form of workbooks and aid in increasing self-compassion and reducing levels of trauma-related guilt.

To our knowledge, this research is the first to evaluate the effectiveness of self-compassion workbook training on trauma-related guilt and PTSD. Findings from this study suggest that self-compassion training may be just as effective as stress inoculation training in helping to reduce trauma-related guilt. The brevity of the 4-week workbook interventions further demonstrates that only a short amount of time is needed to learn stress inoculation techniques and for practicing self-compassion to have some effect. Furthermore, the present research showed that self-study in the form of workbooks is an effective form of delivery for self-compassion and stress inoculation interventions aimed at reducing trauma-related guilt. Similar compassion-focused research that reported significant reductions in shame and self-criticism required participants to attend 2-hour-long in-person training sessions over the course of 12-weeks (Gilbert & Procter, 2006).

In addition, the present study shows that self-compassion training can be effective for homeless veterans. The majority of research that has previously been conducted on self-compassion used more advantaged populations (e.g., Gilbert & Procter, 2006; Neff, 2012; Neff & Germer, 2013). Consequently, self-compassion workbook training appears to be a cost-effective intervention for people who are hoping to become more self-compassionate and experience reductions in trauma-related guilt.

It is noteworthy that upon beginning the present study, many of the veterans approached one of the authors of this study and shared about having received psychotherapy for many years without any noticeable change. It is therefore even more surprising how quickly participants were able to change and experience reduced trauma-related guilt. Most notable is that the self-compassion intervention was written in a general way and was not designed to specifically target trauma-related guilt. Thus, it appears that the general practice of self-compassion may help people relate differently to trauma-related guilt cognitions when they enter one’s mind.
Negative beliefs about oneself are the hallmark of trauma-related guilt and often prevent people from successfully recovering from their traumatic experiences. The approach-coping qualities of self-compassion (Neff, 2012; Neff & Germer, 2013) may allow people to process and adjust their sometimes deeply engrained negative beliefs about themselves. Although the stress inoculation training workbook appeared to be slightly more effective than the self-compassion workbook in this study, self-compassion training may function as a support intervention to existing treatments for PTSD, such as cognitive processing therapy or prolonged exposure, especially for people who are extremely self-critical.

**Limitations**

Given the pilot nature of this study, there are a number of limitations that need to be addressed. First, the main limitation of the present study is the lack of a true control group. Even though the stress inoculation intervention was designed nonspecifically—teaching participants basic coping skills for distress—participants in this group still received valuable information, which likely affected change. Given the lack of a waitlist control, it is extremely difficult to determine whether results are due to receiving one of the interventions or whether changes are the result of more time spent in the transitional housing facilities.

Second, to ensure participants' privacy, we chose not to inquire about any medications or therapy they were receiving. To live in the transitional housing facilities, the homeless veterans also had to receive services (either psychotherapy, medication, or both) at a local VA outpatient clinic. It is likely that they were receiving other therapy or medication in addition to participating in this pilot study. Although randomization should control for these influences, it is possible that receiving additional services confounds the results of this study, as it would be difficult to determine whether changes came directly from completing the workbooks, the services, or medication they were receiving at the time, or a combination of both.

Third, although the workbooks and the study description instructed participants to practice the outlined exercises daily for at least 5–15 minutes, there was no way to determine whether participants actually practiced the exercises as intended. Although research assistants checked the workbooks to make sure that exercises were completed, the specific content of the responses was not checked to ensure participants' privacy. Thus, any observed effects cannot be attributed to the practice of the workbook with any certainty.

Fourth, both interventions contained exercises that were similar to traditional mindfulness, which is commonly associated with self-compassion. To avoid overlapping constructs, we chose to ask participants in the stress inoculation intervention to focus on deep breathing, as a means to raise awareness, whereas participants in the self-compassion intervention were asked to become more aware of how situations affected their thoughts and emotions through traditional cognitive-behavioral interventions. The fact that the self-compassion intervention lacked a true mindfulness exercise, even though mindfulness is considered a core component of self-compassion (Gilbert, 2013; Neff, 2012), may influence the results of the present study.

Fifth, incentives for participation may have been too high and may have skewed the results. Specifically, in addition to the $20 gift cards that the participants received for completing the 4-week-long study, the organization's staff allowed the participants to miss 3-hour-long meetings in their transitional houses as long as they signed up for the study. This latter incentive may have negatively influenced their motivation for being part of the study. This may also help explain the 43% dropout rate, which might be indicative of people's lack of motivation to be part of the study.

Sixth, another limitation of the present study is the reliance on self-report assessments. Impression management is common among homeless people and may be used to cope with the feelings of devaluation associated with becoming and being homeless (cf. Boydell, Goaring, & Morrell-Bellai, 2000). For this reason, objective, researcher-administered assessments for the study variables and possibly assessments for impression management could have provided greater validity.
Future Directions

Despite the aforementioned limitations, the present study provides a foundation for further research in the area of self-compassion and trauma-related guilt. To date, very little is known about the relationship between these variables. The present study suggests that self-compassion workbook training can be an effective way of reducing trauma-related guilt in homeless veterans. It is imperative to build on the foundation laid by this study and to improve the use of self-compassion training as an intervention for trauma-related guilt.

Future research should continue to evaluate the effect that self-compassion has on trauma-related guilt, as self-compassion training may function as a support intervention for existing evidence-based treatments for PTSD, such as cognitive processing therapy and prolonged exposure therapy. As such, the role of practicing self-compassion would be to help teach trauma survivors new ways of relating, caring for, and understanding themselves beyond challenging the validity of their trauma-related cognitions or lessening the intensity of trauma-related experiences. Self-directed learning, such as working through a workbook, requires a lot of drive and motivation. Thus, people who are introduced to self-compassion practice may benefit from in-person learning, such as classes, groups, or individual sessions, in which self-compassion is taught and practiced, which has been used by other self-compassion programs, such as the compassionate mind training (Gilbert & Procter, 2006) or the mindful self-compassion program (Neff & Germer, 2013).

Further, the present research used general self-compassion exercises and the workbook did not specifically target trauma-related guilt. Future research in this area may benefit from specifically evaluating trauma-focused self-compassion that directly targets trauma-based negative beliefs, such as “I should have known better” or “I am a horrible person for allowing it to happen.” Such specificity would allow for directly determining and possibly enhancing the effectiveness of self-compassion for reducing trauma-related guilt.

Conclusion

Results from the present study add to the existing literature on self-compassion and trauma-related guilt. Specifically, this research highlights the interrelation between these two concepts. The findings suggest that self-compassion workbook training is effective for reducing levels of trauma-related guilt in homeless veterans in transitional housing. It is crucial to continue to focus on developing ways to help people reduce their trauma-related guilt to prevent relapse of PTSD or substances and reduce the likelihood of becoming or remaining homeless. Given that the present study is the first to examine the effects of self-compassion training on trauma-related guilt, more work in this area is needed to strengthen the foundation for self-compassion as an effective intervention for trauma-related guilt.

References


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