

Utilizing Community Resources to Treat PTSD: A Randomized Controlled Study Using Thought Field Therapy

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Abstract

The use of Thought Field Therapy (TFT), a brief therapy technique, is examined in a randomized controlled study, to determine if there is a significant difference in the reduction of trauma symptoms between the treated group and the untreated group. Study participants in the waitlist group received treatment after having completing the posttest.

Prior to the study, TFT techniques were taught to Rwandan community leaders, who then provided one-time individual trauma-focused TFT interventions to one hundred and sixty four adult survivors of the 1994 Rwandan genocide in their native language, Kinyarwanda. Pre- and post-intervention assessments of trauma symptoms used were the Trauma Symptom Inventory (TSI) and the Modified Posttraumatic Stress Disorder Symptom Scale (MPSS) translated into Kinyarwanda. Significant differences were found in trauma symptoms and level of PTSD symptom severity and frequency between the treatment and the waitlist control groups. Participants in the waitlist group experienced significant reductions in trauma symptoms following their subsequent treatments, which took place after the first posttest. These positive outcomes suggest that a one-time, community leader facilitated trauma-focused TFT intervention may be beneficial with protracted PTSD in genocide survivors.

Key words: Community Resources, PTSD, Rwanda, Thought Field Therapy, Trauma Treatment

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Introduction

A growing body of literature speaks to the need for addressing psychological trauma after large-scale disasters wherever and however they might occur (Ghosh, Mohit, & Murthy, 2004). The effects of conflict and war are especially devastating in an age where 90% of the casualties of war are civilians (Alexander, 2010). Restoring social stability after mass trauma can challenge the resources of even developed nations. Due to severely limited resources, many developing nations face still greater challenges. Yet, inhabitants of developing nations are more likely to, at some time in their lives, be directly affected by conflict. They are also likely to suffer greater losses due to the ravages of natural disasters such as earthquakes and floods, and man-made disasters such as war and conflict (Desjarlais, Eisenberg, Good, & Kleinman, 1995; Goush et al. 2004).

Lingering psychological effects of trauma often go

untreated years after an initial disaster, war, or conflict has ended. In a review of 192 studies of Posttraumatic Stress Disorder (PTSD) conducted between 1980 and 2005, Galea, Nandi, and Vlahov (2005) noted that several studies have provided evidence that in many people, trauma symptoms can persist long after the traumatic event.

This study examined the use of Thought Field Therapy (TFT) for the treatment of Posttraumatic Stress Disorder after a large-scale traumatic event. Prior research efforts have suggested that TFT could possibly be helpful in addressing long-standing symptoms of PTSD in individuals living in developing nations following large-scale traumatic events. (Connolly & Sakai, 2011; Sakai, Connolly, & Oas, 2010). TFT is a self-help treatment that can be easily disseminated through the development of community-based partnerships of trained mental health practitioners and trained community leaders. The practical constraints of this field study dictated the utilization a single treatment session using a waitlist control group design.

Rwandan genocide survivors

The symptoms of trauma experienced

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by survivors of the 1994 genocide in Rwanda have been well documented. One and a half years after the 1994 genocide, Neugebauer et al. (2009) conducted interviews of Rwandan children and adolescents. They found that, as in studies of traumatized children and adolescents in industrial societies, child and adolescent survivors of the Rwandan genocide reported experiencing symptoms of trauma, including intrusive memories, hyper-arousal, avoidance, and emotional numbing. Neugebauer et al. noted that, of the total of 1547 individuals aged 8-19 years who participated in interviews, over 90% reported exposure to life threat and witnessing killings.

Psychological intervention following large-scale trauma

Hobfoll et al. (2007) assembled a world panel of experts on the study and treatment of those exposed to large-scale trauma in an effort to form a consensus on intervention strategies. These experts concluded that "the scale of recent disasters and incidents of mass violence also underscores that these interventions must be available to large numbers of individuals, at levels that quickly outstrip the available individual-level therapists who are local or may be dispatched to the region" (Hobfoll et al., 2007, p. 301). These authors emphasize that therapeutic intervention that can be used as self-help tools can increase the individual's sense of self-efficacy, an important aspect of the trauma recovery process.

Desjarlais et al. (1995) listed 13 studies of prevalence rates of PTSD after large-scale disasters in 11 countries and identified prevalence rates from 4% to 88%. These authors noted that in the face of profound challenges, the World Health Organization and the international mental health community had developed a general consensus on basic principles that could serve to guide those seeking to improve mental health services. These authors noted that presently, few who live in disaster-prone areas receive needed mental health services.

Recognizing the need for addressing mental health needs after large-scale disasters and conflict, the Executive Board of the World Health Organization met in Geneva in 2002 and recommended support for the implementation of programs to address the psychological damage of war and natural disasters (Ghosh et al., 2004). In 2003, the World Health Organization, Department of Mental Health and Substance Dependence (2003),

issued a document recommending maximizing resources within communities and specifically educating community leaders in core psychological care skills. The Inter-Agency Standing Committee (IASC) (IASC, 2007) completed guidelines for the implementation of such programs. The first and third authors of the present study have responded to invitations to work in Rwanda on five separate occasions (for approximately one month each year from 2006 through 2010), providing interventions within guidelines compatible with those suggested by IASC. These efforts are under the third tier of emergency relief efforts as defined by IASC. According to guidelines, after basic needs for services and security (first tier), and community and family support (second tier) have been implemented, there remains for some (but certainly not all) who have been affected by disaster, a need for focused non-specialized support. This third tier represents the support that a smaller number of people might still need after the basic needs for security, safety, and community and family support have been met. According to these guidelines, this third tier of care can consist of psychological care provided by community workers, as psychological first aid. Persons not responding sufficiently to this level of intervention could then be referred to mental health professionals within the local mental health community (tier four), saving scarce professional resources for those who remain in need of more specialized services (IASC, 2007).

In the case of the community targeted in the present study, this third tier of services was provided to persons in Rwanda who had been in Rwanda in 1994 and who stated that they continued to experience symptoms of trauma, 15 years after the 1994 genocide. In this study, respected community leaders, who attended a two-day training in Thought Field Therapy (TFT), and who were not for the most part mental health professionals, administered all therapy interventions.

Literature review of Thought Field Therapy

In one non-randomized controlled pilot study, 29 low-income refugee and immigrant high school students living in the United States were categorized as having the symptoms of PTSD based on exceeding a cut-off score on the Civilian Posttraumatic Checklist-C (PCL-C) (Weathers, Huska, & Keane, 1991). After one to three sessions of TFT, their PCL-C scores showed significantly less

avoidance behaviors ($p < .05$), intrusive thoughts ($p < .05$), and hyper vigilance ($p < .05$) than prior to treatment (Folkes, 2002).

In another non-randomized controlled preliminary study, Sakai et al. (2010) treated 50 adolescents who were orphaned by the Rwandan genocide and were experiencing PTSD symptoms as measured by the Child Report of Post-Traumatic Stress (CROPS) and the companion testing instrument, Parent (guardian) Report of Post-Traumatic Stress (PROPS) (Greenwald & Rubin, 1999). Adolescents and caregivers reported significant decreases in PTSD symptoms in the children after one TFT session. These improvements were sustained at the one-year follow-up.

In a randomized controlled study, with a two-year follow-up, Connolly and Sakai (2011) tested the use of TFT by trained community leaders to address symptoms of trauma after a large-scale conflict. They examined the efficacy of TFT administered by community leaders in reducing Posttraumatic Stress Disorder symptoms in adult survivors of the 1994 genocide in Rwanda. TFT significantly reduced trauma symptom scores on the Trauma Symptom Inventory (TSI) (Briere, 1995) and the Modified PTSD Symptom Scale (MPSS) (Falsetti, Resnick, Resnick, & Kilpatrick, 1993) for the treatment group. The wait-control group was treated two days after the posttest and then took a second posttest a week later. In the wait-control group, TFT significantly reduced trauma symptom scores on the Trauma Symptom Inventory and the Modified PTSD Symptom Scale. Posttests administered two years following the treatment indicated that treatment effects endured for both the original treatment group and the treated waitlist control group.

In this study, local community leaders received a two-day intensive training in TFT prior to the intervention. The trained community leaders were supervised during the intervention by the trainers as they administered TFT. This study aimed to determine if participants, guided by TFT-trained community leaders in using TFT self-treatment techniques, demonstrated trauma symptom reduction greater than those receiving no treatment on measures of PTSD-specific trauma symptoms, seven days post TFT treatment, and to determine if the wait-list control group would show changes after subsequent treatment.

METHODS

Participants

Participants were % - adult survivors of the 1994 genocide in Rwanda recruited by a Catholic priest of the Nyinawimana parish of the diocese of Byumba, Rwanda who announced the call for volunteers at church services and public meetings in the larger community. The first % - persons who were over 18 years of age and who reported that they currently were experiencing psychological symptoms related to trauma were accepted. Of the 199 voluntary participants 35 were removed due to a score of 75 or above on the Inconsistent Response (INC) scale for reliability/validity on the TSI (judged by the scale creators to be invalid). The test author points out that some individuals experiencing extreme trauma may have difficulty, such as shortened attention span and/or dissociative symptoms, and that testers should examine the possibility that high INC scores are explainable for other reasons other than inconsistency per se., in which case the tests could be considered valid. (Briere, 1995, p.12). However in this test situation it was not possible to evaluate tests individually following this criterion, so all tests with high INC scores were eliminated. The final sample of 164 participants ranged in age from 18 to 100 ($M = 47.7$, $SD = 14.8$), and all volunteered to receive a brief treatment for symptoms of trauma. The test was administered with the help of community leaders as all participants in the study, with the exception of one participant, were unable to read at the level required to self-administer the testing instrument. The participants all spoke Kinyarwanda, the language in which the consent forms and testing instruments were translated. All participants reported at the time of volunteering for the study that they suffered from symptoms of trauma related to the 1994 Rwanda genocide. The Arizona State University Institutional Review Board and the Republic of Rwanda National Ethics Committee approved this study.

The majority of the participants were female (141, 86%; male 23, 14%). The participants were native to many regions of Rwanda, with the largest proportions from Byumba (155, 94.5%). Other participants were native to Butare (1, .6%), Gitamara (1, 6%), Kigali (1, .6%), and other (6, 3.7%).

Reported experiences during the 1994 genocide included: being beaten, 43 (26.2%); having been abused, 52 (31.9%); witnessing others being beaten, 97 (59.1%); witnessing others being killed, 112 (68.3%); hearing others being hit or beaten,

118 (71.9%); and being forced to do things they were against, 40 (24.4%). Eighty-three (50.6%) of the participants reported that they had previously sought treatment for the problems they had experienced since the genocide of 1994. By having been in Rwanda during the genocide of 1994, all participants met the DSM-IV criterion A1 for Posttraumatic Stress Disorder (American Psychiatric Association [DSM-IV-TR], 2000).

Intervention

The intervention used in this study was Thought Field Therapy, a psychological treatment intervention developed by Roger Callahan, a psychologist (Callahan & Callahan, 2000). A modified version of the standard TFT algorithm training manual was used throughout the study. The manual was translated into French, the written language with which the Rwandan trainees were most familiar, and was also available in English for those Rwandan trainees who preferred English. The manuals (unpublished) used can be viewed or downloaded from <http://thoughtfieldtherapy.net/manual/>. Although there are more advanced levels of TFT that require more extensive training, only the TFT algorithms were taught and applied in this study. The scope of this paper will be limited to the efficacy of TFT at the algorithm level to address symptoms of trauma.

Rwandan therapists

The community organizer-priest, the primary contact, selected the 36 Rwandan therapists. The selected therapists included respected community leaders from the Byumba and Kigali regions of Rwanda and all spoke the native language, Kinyarwanda. The selected therapists also spoke French and/or English. The training took place at the Izere Center (Center for Hope), in the Northern District of Rwanda.

Treatment protocol

The trainers were available for supervision throughout the entire study, ensuring that the newly trained Rwandan therapists adhered to the standard TFT algorithm protocols throughout the treatment phases of the study. The Rwandan trainees received two days of training, including training in confidentiality, the stages of trauma intervention, and training in TFT algorithm protocols.

Measures

The participants completed a demographic form including age, gender, birth region, questions about what they experienced and/or saw during the genocide, along with two trauma-focused instruments, the Modified PTSD Symptom Scale (MPSS) (Falsetti et al. 1993), and the Trauma Symptom Inventory (TSI) (Briere, 1995). The instructions for each pretest and posttest were verbally modified to assess how often the symptoms had appeared in the last week.

The MPSS (Falsetti et al., 1993) was used to assess the existence of PTSD and the frequency and severity of the PTSD symptoms. Scoring criteria for experiences of PTSD as determined by the test developers were a 23 or above on frequency, a 47 or above on severity, and a 71 or above as a sum.

The full 100-item TSI, created by Briere (1995) to assess symptoms that trauma victims experience, was also used in the study. The scores of each TSI subscale were summed and converted into a t-score by the scoring program. Changes between pretest to posttests for each symptom were examined within each group, as well as between the two groups. A total of 164 pretest and posttest TSIs were included in the study. Thirty-five completed TSIs (21%) were excluded from the study due to very high scores (above 75 t-score) on the Inconsistent Response subscale and the authors had no way to assess these test-takers' scores on an individual basis to see if the high INC scores reflected explainable responses as test developer recommends.

The internal consistency of the TSI has been supported with Cronbach's (Cohen, 1988) alphas ranging from .74 to .91 (mean $\alpha = .86$) for each subscale. For the present study, the Cronbach's alphas for the subscales were Anxious Arousal (.86), Depression (.83), Anger/Irritability (.89), Intrusive Experiences (.90), Defensive Avoidance (.72), Dissociation (.84), Sexual Concern (.84), Dysfunctional Sexual Behavior (.65), Impaired Self-Reference (.76), and Tension Reduction Behavior (.58). All instruments were professionally translated from English to Kinyarwanda, the first language of most Rwandans, by a native Rwandan. They were then back-translated to English by a native speaker of English.

Design and procedures

A randomized, waitlist control group design was used. After reading the consent letter, and agreeing to participate in the study, participants were randomly assigned to an immediate treatment group or the waitlist control group. Blank surveys were in file folders delineated as treatment (blue folders) or waitlist control group (red folders) and were stacked alternately. The intake person took the top file from the stack and assigned the participant to that group and continued with the alternating group assignments. The person handing out the folders was not aware of the implications of the different colored folders. All participants completed the demographic form and pretests (MPSS and TSI). Those assigned to the treatment group returned two days later for treatment with TFT from a randomly assigned newly trained Rwandan therapist. The treatment group and the waitlist control group were asked to return seven days later to complete the posttests. The waitlist

control group received treatment with TFT two days following the posttest and returned seven days after their treatment to take a second posttest. The tests, except for one, were administered interview-style with the help of the Rwandan therapists in private one-to-one settings for all participants except for the one participant who could read the testing materials. The immediate treatment group was compared to the waitlist control group one week following their treatment with TFT to determine if the TFT treatments would produce changes greater than no intervention. The waitlist control group received treatment with TFT two days following the comparison assessment. The mean duration of the intervention for all participants was 35 minutes, and ranged from 5 to 120 minutes.

RESULTS

Participants' symptoms

Seventy-three participants (44.5%) attained

TABLE 1
Pretest Mean Scores for Treatment and Waitlist Control Group

Measure	Treatment Group (n=85)		Waitlist Control Group (n=79)		t	p
	M	SD	M	SD		
Trauma Symptom Inventory Pretest						
Anxious Arousal*	67.4	10.5	63.7	11.4	-2.13	0.035
Depression*	67.3	9.9	63.2	11.1	-2.45	0.015
Anger/Irritability*	59.3	12.1	54.8	10.8	-2.47	0.015
Intrusive Experiences	68.9	11.2	66.0	11.7	-1.34	0.1
Defensive Avoidance	60.3	9.9	57.5	8.1	-1.98	0.05
Dissociation	69.4	13.1	65.5	13.1	-1.92	0.05
Sexual Concerns	61.8	14.2	58.7	13.6	-1.4	0.15
Dysfunctional Sexual Behavior	57.1	11.8	54.8	12.6	-1.21	0.23
Impaired Self-Reference*	64.5	9.7	60.7	9.7	-2.5	0.013
Tension Reduction Behavior	61.8	11.9	59.1	12.1	-1.44	0.15
MPSS Pre-test						
Frequency	29.1	9.1	26.7	10.4	-1.61	0.11
Severity	38.2	15.8	34.0	16.4	-1.68	0.096
Sum	67.4	23.2	60.7	26.1	-1.74	0.085

* significant at $p < .05$.

the PTSD cutoff score of 71 or above on the sum of their pretest MPSS frequency and severity subscales. PTSD sum scores on the pretest MPSS ranged from 0 to 114 ($M = 64.2$, $SD = 24.79$).

Group comparability

The participants were randomly assigned to either the treatment group ($n = 85$) or the waitlist comparison group ($n = 79$). Demographic data between the participants in the treatment group and control group were examined using chi-square analysis and t-tests

TABLE 2
Effect Sizes For Subscales Controlling For Pretest Scores

Subscales	Constant	Treatment differences effect sizes (d)
Trauma Symptom Inventory Subscales		
Anxious Arousal	-0.45 ***	-1.22 ***
Depression	-0.62 ***	-1.17 ***
Anger/Irritability	-0.39 ***	-0.78 ***
Intrusive Experiences	-0.4 ***	-1.27 ***
Defensive Avoidance	-.12	-0.96 ***
Dissociation	-0.48 ***	-1.09 ***
Sexual Concerns	-0.53 ***	-0.36 **
Dysfunctional Sexual Behavior	-0.45 ***	0.26 **
Impaired Self-Reference	-0.49 ***	-1.08 ***
Tension Reduction Behavior	-0.32 ***	-0.6 ***
MPSS		
Frequency score	-0.6 ***	-1.33 ***
Severity score	-0.57 ***	-1.2 ***

** $p < .01$, *** $p < .001$

Note. The constant effect size indicates the impact of non-treatment for the control group. The Treatment differences effect size indicates the impact of the treatment above the impact on the control group (i.e., in addition to the constant).

Addendum

A follow-up study of the trained therapists was done one year later. In this study, thirty-five therapists participated in interviews. They had treated an average of 37.50 people ($SD = 25.37$), and they reported that they had met with each client an average of 3.19 times ($SD = 1.08$). They had treated from 3 ($n = 1$, 2.9%) to 123 ($n = 1$, 2.9%) people, and they had seen each client from 1 ($n = 1$, 2.9%) to 6 ($n = 2$, 5.9%) times (Mode = 3, $n = 14$, 41.2%). Thirty-four (97.1%) of the therapists said that TFT had made a difference in people's lives, and 34 (97.1%) said that people were pleased with the treatment. Data from one therapist were missing for these questions. Thirty (85.7%) of the therapists said that TFT had benefited the community, and 8 (22.9%) indicated that the changes in people that were brought about by TFT were contributing to the socio-economic development of Rwanda. Eleven (31.4%) of the therapists suggested that TFT should be disseminated throughout Rwanda.

to ascertain any differences between the two groups. The treatment group participants ranged in age from 18 to 100 ($M = 48.3$, $SD = 15.7$), and the control group ranged in age from 21 to 85 ($M = 47.2$, $SD = 13.9$). The treatment group was 91.1% female ($n = 72$), and the control group was 81.2% female ($n = 69$). The two groups had similar percentages of participants attaining the PTSD cutoff scores (with scores indicating PTSD) on the MPSS. See Table 1 for pre-test comparisons.

Treatment outcome

The MPSS and TSI pre and posttests measure changes in specific trauma symptoms. (The outcome measures of the TSI and MPSS are unique aspects of trauma symptomology.) The first analysis was to conduct a paired-samples t-test to determine within-group changes for the treatment and control groups to determine if there were statistically significant differences between the treatment and control groups. Then, an analysis of covariance (ANCOVA) was run, controlling for pre-test scores, to determine the effects of the intervention. To address Type 1 error for multiple testing, α was set at .01.

Impact of treatment

Significance tests on posttest means for each TSI subscale and MPSS scale were done by means of the F-ratios computed in the ANCOVA after the adjustment of the group mean to control for pre-test score. As shown in Table 1, despite the randomization of the study some of the pretest scores were significantly different between the treatment and control groups. ANCOVA's of posttest means were conducted for each TSI subscale and the MPSS scales by using pretest scores as covariates. The adjusted posttest scores showed significant decreases in trauma symptoms for the treatment group on all TSI subscales and significant decreases on the MPSS frequency and severity scales. See Table 2.

Effect sizes using Cohen's d (Cohen, 1988) were calculated with the ANCOVA controlling for pretest scores to determine the magnitude of change after the treatment intervention, and also the magnitude of difference between the treatment and no treatment control groups. A small effect is .2, a medium effect is .5, and a large effect is .8 and above (Dunst, Hamby, & Trivette, 2004). Large effect sizes (from .8 to 1.33) were found between treatment and no treatment control conditions on the TSI subscales of Anxious Arousal, Depression, Anger/Irritability, Intrusive Experiences, Defensive Avoidance, Impaired Self-Reference, and Dissociation, as well as the MPSS frequency and severity scales. High medium (above .60) effect

sizes were found for the Tension Reduction Behavior subscale. Small effect sizes (.2) were found for the Sexual Concerns and Dysfunctional Sexual Behavior subscales. The effect size on the MPSS Frequency Scale was 1.33 on the Severity Scale, and 1.2 on the Frequency Scale. See Table 2 for effect size scores.

To determine if there was a significant impact of the intervention on the waitlist control group ($n = 79$), a t-test was run for each trauma subscale on the TSI and the MPSS scales. Prior to running the t-tests, the posttest 1 and posttest 2 were adjusted for pretest differences. The adjusted posttest scores showed significant decreases in trauma symptoms scores on all TSI subscales and significant decreases on the MPSS frequency and severity scales. The Cohen's d (Cohen, 1988) demonstrated medium to large effect sizes, demonstrating the magnitude of change after the treatment intervention.

Both the control group and the treatment group showed significant drops in scores on the TSI and MPSS subscales, which may be partially due to the testing effect; however, a very strong treatment effect was found, as demonstrated by the magnitude of differences between the control and treatment groups at first post test, and then significant improvement for the control group after treatment.

DISCUSSION

Summary of findings

The findings of this randomized controlled trial support the hypothesis that participants treated with TFT by trained community leaders showed trauma symptom reduction greater than those receiving no treatment, on measures of PTSD-specific trauma symptoms and the frequency and duration of PTSD symptoms, seven days post TFT treatment. In this study, a single TFT session administered by supervised community leaders, recently trained in TFT, provided evidence to support earlier findings (Connolly & Sakai, 2011; Sakai et al., 2010) that TFT could be effective in reducing longstanding and severe symptoms of PTSD. The changes from pretest to posttest were significant for the TFT treatment group and were not significant for the control group. The control group showed significant changes, however, after their subsequent TFT treatment.

The authors of this study are not suggesting that one session of TFT, administered by community leaders, can completely resolve severe and longstanding symptoms of trauma, but advocate providing community leaders with skills that could be used to follow up with further treatments as needed within the community.

Limitations and suggestions for further research

The effect sizes found in this study and the Connolly and Sakai (2011) study need to be substantiated with comparative studies utilizing placebo treatments and traditional PTSD treatments. The study participants were volunteers from one region of Rwanda who were informed of this study, and had access to participate. The outcomes may not be generalizable to all Rwandans or other war survivors.

Clinical implications and conclusion

Prolonged and intense PTSD, due to conflict and natural disasters, affects large segments of the population throughout the world. Mental health needs frequently far outstrip mental health resources. Findings from this study suggest that brief treatment using TFT treatments provided by trained community leaders shows promise as an effective method of alleviating symptoms of trauma after large-scale traumatic incidents.

Enlisting community leaders to treat fellow community members employing an effective brief therapy intervention that does not require years of clinical training vastly enhances the potential mental health care resources in a community devastated by wide scale trauma, and is consistent with guidelines formulated by ISAC (2007) (Ghosh et al., 2004).

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By way of disclosure of potential conflicts of interest, three of the authors use Thought Field Therapy in their private practices and conduct workshops on using Thought Field Therapy.

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