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# Trauma-Focused Therapy for Refugees: Meta-Analytic Findings

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High levels of trauma-related psychological distress have been documented among ethnically diverse refugees. As the number of refugees worldwide continues to grow, determining the efficacy of established methods of trauma-focused therapy for this population is crucial. This meta-analysis examined the results of randomized controlled trials of psychotherapeutic intervention for traumatized adult refugees. Comparisons of 13 trauma-focused therapies to control groups from 12 studies were included in the analysis. The aggregate effect size for the primary outcome, posttraumatic stress disorder (PTSD), was large in magnitude, Hedge's  $g = .91$ ,  $p < .001$ , 95% CI [.56, 1.52]. The aggregate effect size for depression, assessed in 9 studies, was also large  $g = .63$ ,  $p < .001$ , 95% CI [.35, .92]. We used metaregression to evaluate potential moderators of the PTSD effect size. Number of sessions significantly predicted magnitude of the effect size, and studies that utilized an active control group (e.g., supportive counseling) had significantly smaller effect size than those with a passive control group. There was no difference in outcome for studies where an interpreter was used to facilitate sessions and those where no interpreter was used. There also was no difference in outcome based on type of PTSD assessment. Results provide evidence in the efficacy of trauma-focused models for treating refugees, and also shed light on important areas for future research.

**Keywords:** refugee, meta-analysis, trauma, psychotherapy, clinical trial

Severe, ongoing political conflicts around the world have resulted in rates of forced displacement at the highest level since World War II (United Nations High Commissioner for Refugees [UNHCR], 2014). At the end of 2013, the number of refugees and individuals seeking asylum outside their home country was greater than 17 million (UNHCR, 2014). The United States is one of the top resettlement countries in the West. In the past decade alone, over half a million ethnically diverse refugees resettled in the United States and more than 250,000 individuals were granted asylum (Department of Homeland Security, 2012).

Refugee status is a legal designation granted by UNHCR or a government entity to individuals who have fled their home country because of persecution based on their race, nationality, religious or political beliefs, or social group membership, as defined in Article 1 of the 1951 United Nations Convention on the status of refugees (UNHCR, 1951). Asylum seekers are individuals seeking refugee or other protected status whose claims have not yet been evaluated (UNHCR, 2013). Thus, by definition, these individuals have been exposed to trauma and extreme stress prior to fleeing their country of origin. Additional stressors are often encountered during the migration process including separation from family, stays in unsafe refugee camps, and difficulties obtaining refugee status

(Ryan, Dooley, & Benson, 2008). Once resettled, refugees are typically faced with adapting to a new culture, learning a new language, and rebuilding their lives. Life in a new country may include a range of difficulties including discrimination, limited social support, and barriers to finding employment (Miller & Rasmussen, 2010). Asylum seekers have the additional burden of insecure residency status and in some cases prolonged stays in immigration detention while awaiting the adjudication of their case (Kalt, Hossain, Kiss, & Zimmerman, 2013; Robjant, Hassan, Kautona, 2009).

Given the considerable exposure to pre- and postmigration stressors, it is not surprising that high levels of psychological distress have frequently been documented among samples of refugees and asylum seekers (Hollifield et al., 2002; Keller et al., 2006; Steel et al., 2009). The exact prevalence of specific disorders is difficult to determine, however, given the diversity of the population, methodological differences in existing research and a lack of culturally validated assessments (Murray, Davidson & Schweitzer, 2010). It is likely that these reasons explain why prevalence estimates of posttraumatic stress disorder (PTSD) and depression, the two most frequently evaluated disorders in the literature, have ranged widely from 5% (Fazel, Wheeler, & Danesh, 2005) to 30% (Steel et al., 2009). In comparison, data from the National Comorbidity Study Replication (Kessler, Chiu, Demler, Merikangas, & Walters, 2005) showed a past year prevalence of PTSD and depression in the United States of 3.5% and 6.6%, respectively. Thus, rates of these disorders are at least as high as or higher among samples of refugees than in the general population. Fazel and colleagues (2005) raised the important point that even if the frequency of disorders was on the lower end of the range, there would still be tens of thousands of refugees suffering

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from PTSD and depression. Given the potentially debilitating effects of these disorders and the likelihood that symptoms interfere with successful adaptation following migration, it is important to determine the efficacy of existing trauma-focused therapies for treating this population.

The efficacy of trauma-focused therapies for reducing symptoms of PTSD among individuals who experienced a range of traumatic events including combat-related trauma, sexual assault, domestic violence, motor vehicle accidents, and childhood abuse has been well established. Meta-analyses of this literature suggest treatment generally results in clinically significant improvement in symptoms (Bradley, Greene, Russ, Dutra, & Westen, 2005) with existing models of therapy yielding similar results (Benish, Imel, & Wampold, 2008). However, results of these studies that were conducted almost exclusively with Western samples may not generalize to refugees from non-Western cultures. Refugees capitalized now have often been exposed to multiple traumatic events, sometimes over the course of many years (Ryan et al., 2008; Miller & Rasmussen, 2010) and continue to face a host of unique, ongoing psychosocial stressors (Miller, 1999; Murray et al., 2010; Summerfield, 1999, 2004) that could interfere with successful treatment outcome. The stress of moving from a familiar, albeit dangerous, environment to a foreign country and soon thereafter undergoing psychological treatment could be retraumatizing. Even if the treatment is culturally adapted, it is likely to be conducted with an interpreter that potentially influences the process and outcome of therapy (Miller, Martell, Pazdirek, Caruth, & Lopez, 2005; Mirdal et al., 2012). These and other unique considerations warrant further investigation of treatment efficacy with this population.

Compared with other populations, relatively few randomized controlled trials of trauma-focused therapies have been conducted with refugees. Existing studies have generally shown promising results, however, effect sizes have varied widely and not all treatments have resulted in statistically significant improvements. There have been several narrative review papers summarizing treatment issues with refugees (e.g., Murray et al., 2010; Nicholl & Thompson, 2004; Nickerson, Bryant, Silove, & Steel, 2011; Palic & Elklit, 2011; Slobodin & de Jong, 2014), a meta-analysis of mental health interventions for individuals in humanitarian settings (Tol et al., 2011), and a study that reported an average effect size for seven studies that involved the treatment of refugees and other war-affected samples with one treatment approach (Gwozdziwycz & Mehl-Madrona, 2013). However, to our knowledge, the literature on controlled trials of trauma-focused therapies for refugees has yet to be empirically reviewed.

In this study, we used meta-analytic techniques to estimate the overall effect size for the reduction of PTSD and depression symptoms among refugees undergoing trauma-focused therapy in randomized controlled trials. Nearly all studies we located involved comparison of a treatment group to a control group, thus we limited our review to studies that involved comparison of a bona fide, trauma-focused therapy to a wait list or some other type of control condition. Similar to criteria used in previous psychotherapy meta-analyses, we defined *bona fide therapy* as one that was based in psychological theory, followed a protocol or manual, and contained rationale for interventions (Wampold et al., 1997). However, we deviated from criteria used in previous meta-analyses by allowing inclusion of studies in which paraprofessionals who were

trained specifically for the study provided treatments. Given the growing body of research that supports the efficacy of empirically based treatments implemented by lay counselors in low-income countries where professional therapist are not available (Murray et al., 2014; Patel, 2009; Patel, Chowdhary, Rahman, & Verdelli, 2011), we used a broad definition of therapist to include lay counselors who were trained for the treatment study.

We were specifically interested in the efficacy of established trauma-focused therapies for this population. There has been some disagreement over how to best define trauma-focused in previous meta-analyses of PTSD treatments (see Wampold et al., 2010). For the purpose of this study, we defined *trauma-focused* therapies as those that had previously demonstrated efficacy in treatment of PTSD and included interventions for helping participants process and cope with specific trauma memories and associated symptoms. The most commonly evaluated treatments for traumatized refugees were variants of cognitive-behavioral therapy (CBT) and narrative exposure therapy (NET). In addition, one study evaluated eye movement desensitization and reprocessing (EMDR). The CBT studies we reviewed involved a range of standard techniques including psychoeducation about trauma and posttraumatic stress, cognitive restructuring for maladaptive trauma-related beliefs, teaching of coping skills, and exposure techniques. One variation on CBT included modification of interventions to be better suited to the cultural background of participants (Hinton et al., 2005; Hinton, Hofmann, Pollack, & Otto, 2009; Hinton et al., 2004).

NET is a brief, manual-based, psychotherapy developed for individuals exposed to torture, organized violence, and other war-related traumas (Schauer, Neuner, & Elbert, 2011). Such individuals have usually experienced multiple traumatic events. Therapists work with clients to identify and process each traumatic event, rather than focusing on a single or a few events as is typical in most CBT approaches (Neuner et al., 2008). Over the course of as few as three sessions, therapists provide psychoeducation about response to trauma and help clients develop a cohesive narrative of their entire life, incorporating both positive and negative events. Clients are provided with a complete written autobiography at the end of therapy that they may choose to use in documentation of human rights abuses (Schauer et al., 2011).

The primary outcome examined in each study was PTSD symptoms. Most studies also included measures of depression; because these two disorders are frequently comorbid, we also generated an aggregate effect size for depression. Next, we evaluated whether the variability in outcome for PTSD across studies could be explained by a series of moderators based on study methods. We were first interested in determining if treatment outcome depended on whether an interpreter was used to facilitate therapy sessions. The use of interpreters potentially influences the quality of the therapeutic alliance (d'Ardenne, Ruaro, Cestari, Fakhoury, & Priebe, 2007; Miller et al., 2005), which is particularly salient given the importance of establishing safety with traumatized clients (Briere & Scott, 2013). Further, interpreters, who are typically not trained in psychotherapy, could have difficulty effectively communicating mental health concepts (Miller et al., 2005; Westermeyer, 1990). To date there has been little research on the use of interpreters in psychotherapy with refugees. Although caution has been raised in the clinical literature (Patel, 2003; Tribe, 1999; Westermeyer, 1990), in a retrospective study of therapeutic outcomes at a community clinic, d'Ardenne et al. (2007) found no

difference in outcome or average number of sessions attended based on whether an interpreter was used to facilitate sessions. Because of the potential influence, however, we compared effect sizes for studies that utilized interpreters versus those that did not.

It is also possible that treatment outcome is moderated by the average number of treatment sessions. In their review of the dose-response effect in clinical trials, Hansen, Lambert, and Forman (2002) found that between 57.6% and 67.2% of participants improved after approximately 12 sessions of psychotherapy. The average number of sessions in the studies we reviewed ranged from three to 12. Studies with NET typically involved fewer sessions because this treatment was developed to be a brief intervention that could be applied in humanitarian settings (Schauer et al., 2011). However, given the complexity of the traumatic histories of some refugees and the high rates of comorbid disorders, it is possible that the magnitude of the treatment effect is influenced by number of sessions.

Some studies involved comparison of the treatment group to a wait-list control whereas others involved a comparison to a control that received supportive counseling or treatment as usual. We compared the magnitude of effect sizes for studies with a passive control to those with an active control because of the likelihood that studies with active controls would have smaller effect sizes. We also evaluated PTSD assessment method as a potential moderator because PTSD symptoms were assessed with structured diagnostic interviews in some studies and self-report questionnaires in others, which could influence the magnitude of the effect size.

It is notable that there are a number of other variables that could be important moderators of treatment outcome including participant demographics and contextual factors. Symptom reduction could be influenced by years since migration, income, residency status, or current living conditions, for example. We were not able to test these variables as potential moderators because of the few number of studies.

In summary, the purpose of this study was to estimate the effect size of bona fide trauma-focused therapies for reducing symptoms of PTSD and depression among refugees. We focused specifically on randomized controlled trials with a wait-list control or a control group that included a nontrauma-focused intervention such as supportive therapy. We first generated a summary effect size for the two outcome variables of interest (i.e., PTSD & depression), and then evaluated potential moderators of the magnitude of treatment effects for PTSD including: (a) whether an interpreter was used to facilitate sessions, (b) average number of sessions received by participants, (c) whether the control condition received some time of intervention, and (d) method of PTSD assessment (diagnostic interview vs. self-report).

## Method

### Literature Search

To locate potential studies for inclusion in the meta-analysis, we first conducted an electronic literature search using PILOTS, Medline, PsycINFO, and Google Scholar. To reduce the file-drawer bias, we searched the gray literature using PsycEXTRA. Search terms were broad to maximize the possibility of including all relevant studies. Search strategies were defined specifically for

each database using unique keywords, descriptors, and limits. For example, we searched with combinations of the terms referring to *refugees* with the terms such as *therapy*, *psychotherapy*, and *counseling*. We also used such terms as *clinical trials* as limits or descriptors in the search strategy. In addition, reference pages of review papers and primary studies were examined to supplement the electronic search. Peer-reviewed articles and dissertations were eligible; however, only peer-reviewed articles were located. There was no limit on publication date. We reviewed the title and abstract of each potential study, and those that appeared to meet criteria were collected for more in-depth review (see Figure 1).

To be included in the meta-analysis, studies needed to meet the following criteria: (a) participants were adult refugees, (b) participants were randomized, (c) conditions involved an established trauma-focused therapy compared to a control condition, and (d) outcome was assessed with validated psychological measures. Studies were excluded if (a) the study involved treatment of conflict affected individuals in their home countries, (b) the study involved general psychosocial services rather than a structured psychotherapy, (c) participants were not randomized, and (d) if the study compared two bona fide treatments with no comparison to a control.

One study (Meffert et al., 2014) was excluded because the intervention involved interpersonal therapy (IPT) and did not directly address trauma-related memories as part of the treatment protocol. Although IPT has shown promise as an intervention for traumatized individuals, it is still considered a novel approach in the treatment of PTSD (Meffert et al., 2014). Other studies excluded on the basis of treatment included a day treatment program that combined group psychotherapy with other types of group interventions including art therapy (Droždek & Bolwerk, 2010) and a study with multifamily groups designed to increase access to mental health services (Weine et al., 2008).

Fifteen studies were excluded for being uncontrolled. Schulz, Resick, Huber, and Griffin (2006), Halvorsen and Stenmark (2010), and Morina et al. (2012), for example, evaluated trauma-focused treatments with no comparison condition. A study by Kruse, Joksimovic, Cavka, Wöller, and Schmitz (2009) met all inclusion criteria except randomization and was therefore excluded. In addition, Paunovic and Öst (2001) was excluded because two different trauma-focused therapies were compared, whereas all other studies involved comparison of one treatment to a control.

### Coding of Studies

Two graduate students blind to the purpose of the study coded studies for descriptive information (i.e., authors, publication date, sample size, participant demographic information, and country where the study took place) and hypothesized moderators that included: (a) whether an interpreter was used, (b) average number of sessions, (c) type of control group, and (d) the method for assessing PTSD symptoms. The pre- and post mean and standard deviation values for each outcome measure also were recorded, as were effect sizes if reported by the authors. The description of the treatment provided by the study authors was used to code treatment characteristics.

We defined *control condition* as a condition that involved no psychological intervention or one that involved a nontrauma-

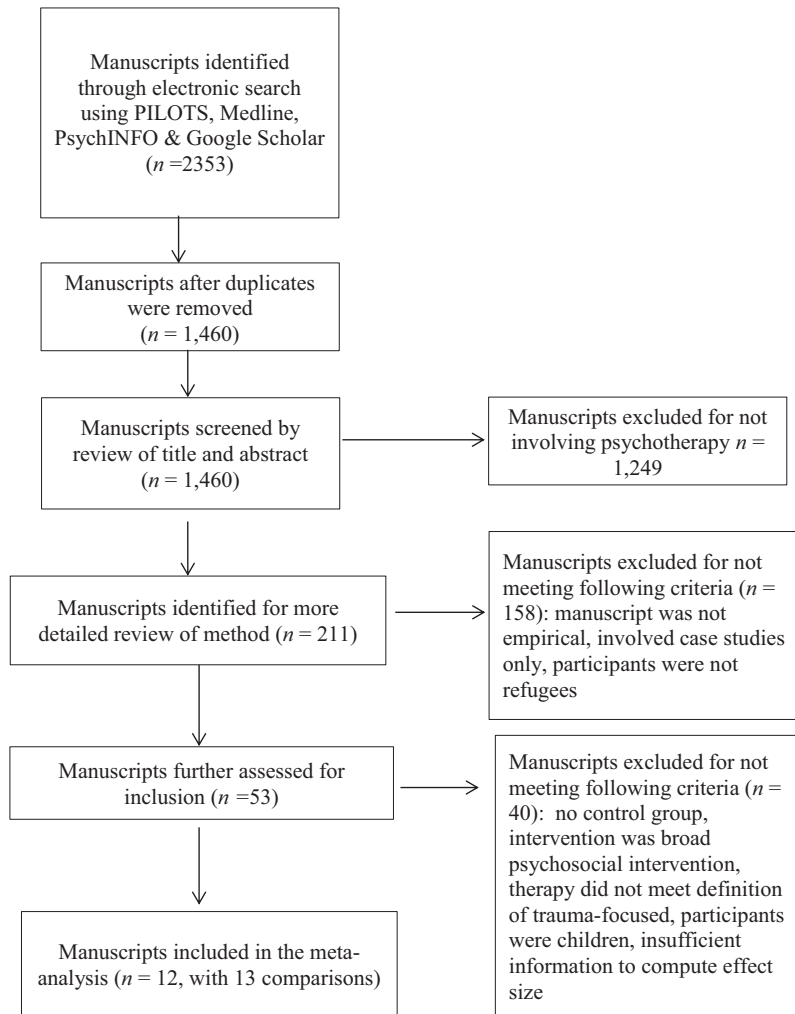


Figure 1. Flow diagram of study selection process.

focused intervention including supportive counseling that was designed to control for nonspecific factors or a nonspecific treatment as usual comparison group. In most cases, the authors explicitly stated that individuals in the comparison condition did not receive trauma-focused therapy. The study by Hensel-Dittmann et al. (2011) involved comparison of NET to stress inoculation training (SIT). Although Meichenbaum's (2007) SIT protocol has previously been established as an empirically supported treatment for PTSD, the authors reported that the model used in their study "explicitly avoid[ed] focusing on the past or exposure to traumatic memories in order to obtain clearly distinguishable treatments" (Hensel-Dittmann et al., 2011, p. 346). We classified this version of SIT as nontrauma-focused because the treatment was modified from the original, empirically supported version, and because the therapists explicitly avoided addressing traumatic events in treatment, focusing instead on daily stress. One study (Stenmark, Catani, Neuner, Elbert, & Holen, 2013) included outcomes for two independent groups (refugees & asylum seekers) each with their own control group. We included a separate effect size for each group.

## Statistical Analysis

We used Hedge's  $g$  to estimate the overall magnitude of the difference in outcome scores between treated participants and controls. Similar to Cohen's  $d$ ,  $g$  is calculated by dividing the mean difference by the pooled standard deviation. However, because the sample pooled standard deviation tends to be an underestimate of the variance in the population, a correction is made in the calculation resulting in a less-biased measure of effect size. We used the Meta-Analysis With Mean Differences (MAd; Del Re & Hoyt, 2014) package in *R* (R Core Team, 2014) to compute effect sizes and evaluate proposed moderators with metaregression. We conducted separate random effects analyses for PTSD and depression. A random effects analysis has been recommended for situations in which the true effect size likely varies in the population (Borenstein, Hedges, Higgins, & Rothstein, 2009). The effect size from each study is weighted by its inverse variance before calculation of the summary effect. The summary effect represents the mean of all true effect sizes (Borenstein et al., 2009).



We also conducted analyses for publication bias for PTSD and depression. Rosenthal's (1991) classic fail-safe  $N$  was used to estimate the number of studies with nonsignificant differences between groups that would be needed to reduce the computed summary effect to a value that was also not statistically significant at the .05 level. We calculated Orwin's (1983) fail-safe  $N$ , to obtain an estimate of the number of studies needed to reduce the effect size to a trivial value, which we set at  $g = .15$ .

We used metaregression to evaluate the proposed moderators. Categorical moderators including use of an interpreter to facilitate treatment sessions (yes vs. no), type of control condition (active vs. passive) and method used to assess PTSD (diagnostic interview vs. self-report measure) were dummy coded prior to running the analysis. The average number of sessions reported for each study was treated as a continuous variable.

## Results

### Description of Included Studies

Our final sample for the meta-analysis of PTSD outcome involved 13 comparisons from 12 studies with a total of 298 treated participants and 198 participants in control conditions. Nine studies were included in the depression analysis. All studies were published in peer-reviewed journals. Three comparisons involved NET versus a nontreated group and five involved NET versus an active control. Four of the comparisons evaluated variants of trauma-focused CBT to a wait-list control. In addition one study involved comparison of EMDR (ter Heid, Mooren, Kleijn, de Jongh & Kleberand, 2011) to supportive counseling. See Table 1 for characteristics of the studies.

Five studies were conducted in Western Europe (Adenauer et al., 2011; Hensel-Dittmann et al., 2011; Neuner et al., 2010; Stenmark et al., 2013; ter Heide, Mooren, Kleijn, de Jongh, & Kleber, 2011) and five were conducted in the United States (Hijazi et al., 2014; Hinton et al., 2004, 2005, 2009; Otto et al., 2003). Two studies involved Rwandan and Sudanese partici-

pants treated in a refugee resettlement in Uganda (Neuner, Schauer, Klaschik, Karunakara, & Elbert, 2004; Neuner et al., 2008). Treatment providers in one study (Neuner et al., 2008) were lay counselors trained by the study authors whereas all others were either professional therapists or graduate students in training. We included the study with lay counselors because previous research has shown that trained lay counselors can be effective in administering evidence-based treatments in humanitarian settings (Murray et al., 2014; Patel et al., 2010). Participants were ethnically diverse across treatments and included refugees from Bosnia, the Middle East, Southeast Asia, and Africa. The average number of traumatic events reported by participants across studies ranged from seven to 14. Traumatic events included torture, assault, and witnessing death of family members or friends.

PTSD symptoms were assessed with diagnostic interviews including the Clinician Administered PTSD Scale (Blake et al., 1995) and the World Health Organization's Composite International Diagnostic Interview (WHO CIDI, 1990) or self-report measures including the Harvard Trauma Questionnaire (Mollica et al., 1992), and the Posttraumatic Diagnostic Scale (Foa, Cashman, Jaycox, & Perry, 1997). Symptoms of depression were assessed with a range of validated measures including the Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) and the Hamilton Depression Rating Scale (Hamilton, 1986). The average number of sessions across treatments ranged from three to 12. Most studies reported statistically significant results, with participants in the trauma-focused group faring better than those on a wait-list or in a nontrauma-focused control condition.

### Results of Analysis

The random effects analysis of PTSD outcome yielded a large aggregated effect size of  $g = .91$ ,  $p < .001$ , 95% CI [.56, 1.52]. The classic fail safe  $N$  analysis indicated 342 studies with nonsignificant results would be needed to reduce this effect size to a

Table 1  
*Characteristics of Studies Included in the Meta-Analysis*

Study	Treatment	Control	Interpreter	No. of sessions	PTSD assessment	PTSD $g$	Depression $g$
Adenauer et al. (2011)	NET	WLC	Yes	12	DI	1.80	1.96
Hijazi et al. (2014)	NET	WLC	No	3	SR	0.33	0.38
Hensel-Dittmann et al. (2011)	NET	SIT	Both	10	DI	0.25	0.36
Hinton et al. (2005)	CBT	WLC	No	12	DI	2.17	N/A
Hinton, Hofmann, Pollack, and Otto (2009)	CBT	WLC	No	12	DI	1.98	N/A
Hinton et al. (2004)	CBT	WLC	Yes	11	SR	2.40	1.84
Neuner et al. (2010)	NET	TAU	Yes	9	SR	1.01	0.53
Neuner et al. (2008)	NET	MG	No	6	SR	0.66	N/A
Neuner, Schauer, Klaschik, Karunakara, and Elbert (2004)	NET	SC	Yes	4	DI	0.06	N/A
Otto et al. (2003)	CBT	WLC	No	10	DI	0.41	0.41
Stenmark, Catani, Neuner, Elbert, and Holen (2013) asylum seekers	NET	TAU	Both	10	DI	0.59	0.60
Stenmark et al. (2013) refugees	NET	TAU	Both	10	DI	0.78	0.53
ter Heide et al. (2011)	EMDR	SC	Yes	11	DI	0.54	0.92

*Note.* PTSD = posttraumatic stress disorder; NET = narrative exposure therapy; WLC = wait-list control; DI = diagnostic interview; SR = self-report; SIT = stress inoculation training; CBT = cognitive-behavior therapy; N/A = not assessed; TAU = treatment as usual; MG = monitoring group; SC = supportive counseling; EMDR = eye movement desensitization and reprocessing.

nonsignificant value. Orwin's fail safe  $N$  indicated 237 studies with an average effect size of .10 would be needed to reduce the aggregated effect to a trivial value, which we set at  $g = .15$ . Analysis of depression also yielded a large aggregate effect size of  $g = .63$ ,  $p < .001$ , 95% CI [.35, .92]; 70 studies with nonsignificant results would reduce this effect to a nonsignificant value, and 37 studies with mean effect size of .10 would bring the magnitude of the effect to a trivial value.

The test of heterogeneity indicated there was significant variability in the effect size of PTSD outcome across studies,  $Q(13) = 33.85$ ,  $p < .001$ ; the  $I^2$  value indicated 64.54% of the variability was due to true differences. Variability among effect sizes for depression was nonsignificant  $Q(8) = 12.25$ ,  $p = .14$ ,  $I^2 = 34.70$ . Next, we conducted a metaregression to determine if variability in PTSD effect sizes across studies could be explained by our proposed moderators. Average number of sessions and type of control group were the only significant moderators. The unstandardized estimate of average number of sessions,  $b = .16$ ,  $p < .001$ , 95% CI [.07, .24], indicated that effect size increased as average number of sessions increased. The estimate for type of control group (passive vs. active),  $b = -.96$ ,  $p = .014$ , 95% CI [-1.72, -.20], indicated that studies with an active control group (e.g., treatment as usual [TAU], supportive counseling) had a significantly smaller effect size than studies that utilized a wait-list control. There was a nonsignificant difference based on use of an interpreter  $b = .30$ ,  $p = .428$ , 95% CI [-.44, 1.03] and PTSD assessment method  $b = -.04$ ,  $p = .878$ , 95% CI [-.64, .55].

## Discussion

In this study, we conducted a meta-analysis of randomized controlled trials of trauma-focused therapy for refugees. We evaluated the overall effect sizes for reduction of PTSD and depression, and examined moderators of PTSD outcome based on study methods. The overall effect sizes were large when comparing treated participants to those in control conditions, suggesting that the trauma-related distress of refugees can be effectively treated with these approaches. The effect size for reduction of PTSD symptoms was larger when participants attended more sessions on average and when the treatment group was compared to a wait-list control rather than an active control. We found a nonsignificant difference between studies that used an interpreter and those that did not. In addition, there were nonsignificant differences based on type of measure used to assess PTSD symptoms (diagnostic interview vs. self-report).

Given the complexity of the traumatic events experienced by participants across studies it is not surprising that average number of sessions predicted the overall magnitude of change in PTSD symptoms. This is consistent with previous research showing most participants in clinical trials improved after 12 sessions (Hansen et al., 2002). It may be that fewer than 10 sessions is not sufficient for reduction of symptoms with individuals who have been exposed to such extreme events. It is important to note, however, that the maximum number of sessions in the included studies was 12, thus the finding that number of sessions was positively associated with effect size may not hold true beyond 12 sessions.

The finding that effect sizes were not significantly different for studies that utilized an interpreter and those that did not is encouraging given that use of an interpreter is often a necessity when

working with refugees. Few studies have examined the use of interpreters in psychotherapy with refugees or other populations. Consistent with d'Ardenne et al.'s (2007) findings from a retrospective examination of client records, our results suggest trauma-focused therapy with interpreters can be effective. Although the difference in effect size might have been significant if there was greater power, the magnitude of the effect for studies that used an interpreter was still in the moderate to large range, suggesting that participants showed improvement on measures of symptomology.

Regarding type of control condition, as expected, use of an active control was associated with a smaller effect size than use of a passive control. Given the heterogeneity of the active control conditions, it is difficult to draw meaningful conclusions from this finding. One potential explanation for this difference is that participants benefited from nonspecific interventions. There continues to be a debate in the literature over whether specific trauma-focused interventions are needed to reduce symptoms of PTSD (Gerger, Munder & Barth, 2014; Wampold et al., 2010). In their meta-analysis of studies that involved comparisons between trauma-specific and nonspecific interventions, Gerger et al. (2014) found that trauma-specific interventions were superior in studies where participants presented with noncomplex problems, but only marginally better than nonspecific interventions when participants presented with complex problems. Results of several of the primary studies included in our review suggested participants in trauma-focused conditions improved more so than participants in nonspecific conditions. Additional research is needed to clarify whether trauma-focused approaches are superior to nonspecific treatments for this population.

We found no difference in effect size based on method used to assess PTSD symptoms. Meta-analyses of correlational PTSD data also have found no difference in effect size based on assessment method (e.g., Lambert, Holzer, & Hasbun, 2014), suggesting both types of assessment will likely yield similar results. This does not, however, address the validity of the PTSD construct for this population, which has been the source of debate in the literature on war affected populations (Rasmussen, Keatley, & Joscelyne, 2014).

Additional limitations are important to consider. The number of primary studies that met inclusion criteria was relatively small, which resulted in low power for the moderator analysis. The small number of studies along with the heterogeneity in samples also prevented the examination of potentially important sources of variance including years since migration, type of trauma exposure, current living conditions, or cultural background of participants. Only two studies were conducted in humanitarian settings, with the remainder being conducted in the United States or Europe. As such, findings may not generalize to individuals in refugee camps or other settings with limited resources.

Meta-analyses always are subject to the limitations of the included primary studies. Many of the studies included in our analysis had small sample sizes. Participants in some trials were also taking psychotropic medication, which makes it more difficult to attribute change to the therapeutic intervention. None took into account potential therapist effects, which have been found to be a significant source of variability in treatment outcome (Kim, Wampold, & Bolt, 2006; Lutz, Leon, Martinovich, Lyons, & Stiles, 2007; Okiishi, Lambert, Nielsen, & Ogles, 2003).

Our review focused exclusively on trauma-focused interventions that were compared to control conditions. As such, results do not provide information on the relative efficacy of trauma-focused models compared to other bona fide treatments. One criticism of the trauma-focused approach is that these models may not adequately address the needs of war affected civilians who typically face a multitude of psychosocial stressors in their daily lives, some of which stem from specific traumatic events and others that arise from living conditions (Miller & Rasmussen, 2010). Such conditions may include poverty, changes in support networks due to loss and migration, unsafe living conditions, and poor access to basic resources. In some situations, research has shown that daily stressors account for a significant proportion of psychological distress over and above direct exposure to war-related trauma (Fernando, Miller, & Berger, 2010; Miller, Omidian, Rasmussen, Yaqubi, & Daudzai, 2008; Panter-Brick, Eggerman, Mojadidi, & McDade, 2008), leading some authors (Miller, 1999; Miller & Rasmussen, 2010; Murray et al., 2010; Silove & Steel, 2006) to argue for a more expansive intervention approach that includes steps to ameliorate problematic contextual factors. For refugees resettled in Western countries such approaches may include psychosocial interventions to assist with adaptation and acculturative stress, community groups for social support, and job counseling and training.

This review sheds light on several important areas for future research. Given the significant variability among treatment outcomes, additional research on factors contributing to successful outcomes for this population is needed. Studies that directly compare established models of treatment would provide more insight into the relative efficacy of the models. Studies that more closely examine the role of interpreters could be used to develop evidence-based recommendations for trauma therapists working with clients who speak a different language. Research on the role of cultural factors in the treatment of refugee populations also is needed. Most refugees in the United States and other high income countries come from non-Western cultural backgrounds and may hold beliefs about the nature of symptoms and methods of healing that differ from those espoused in the Western mental health field (Rasmussen et al., 2014). Given the number of individuals from countries in the Middle East and Africa that have been forcibly displaced because of the ongoing conflicts (UNHCR, 2014), mental health research with these populations is particularly important. Research on resiliency factors also is needed, as is the continued development of psychosocial programs to facilitate adaptation following resettlement.

In conclusion, results of this meta-analysis provide evidence that the psychological distress of refugees can be effectively treated with existing models of trauma-focused therapy, with the caveat that it is not clear from our results whether trauma-focused approaches are superior to nonspecific interventions. Although results are encouraging, there is clearly a need for more research with this population to better understand their experiences and needs, and ultimately provide more consistently effective services. Studies that take into account cultural factors and diversity in life experience are crucial for advancing the field.

## References

\*References marked with an asterisk indicate studies included in the meta-analysis.

- \*Adenauer, H., Catani, C., Gola, H., Keil, J., Ruf, M., Schauer, M., & Neuner, F. (2011). Narrative exposure therapy for PTSD increases top-down processing of aversive stimuli—Evidence from a randomized controlled treatment trial. *BMC Neuroscience*, 12, 127–140. <http://dx.doi.org/10.1186/1471-2202-12-127>
- Benish, S. G., Imel, Z. E., & Wampold, B. E. (2008). The relative efficacy of bona fide psychotherapies for treating post-traumatic stress disorder: A meta-analysis of direct comparisons. *Clinical Psychology Review*, 28, 746–758. <http://dx.doi.org/10.1016/j.cpr.2007.10.005>
- Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., & Keane, T. M. (1995). The development of a clinician-administered PTSD scale. *Journal of Traumatic Stress*, 8, 75–90. <http://dx.doi.org/10.1002/jts.2490080106>
- Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. West Sussex, England: Wiley. <http://dx.doi.org/10.1002/9780470743386>
- Bradley, R., Greene, J., Russ, E., Dutra, L., & Westen, D. (2005). A multidimensional meta-analysis of psychotherapy for PTSD. *American Journal of Psychiatry*, 162, 214–227. <http://dx.doi.org/10.1176/appi.ajp.162.2.214>
- Briere, J. N., & Scott, C. (2012). *Principles of trauma therapy: A guide to symptoms, evaluation, and treatment*. Thousand Oaks, CA: Sage Publications.
- d'Ardenne, P., Ruaro, L., Cestari, L., Fakhoury, W., & Priebe, S. (2007). Does interpreter-mediated CBT with traumatized refugee people work? A comparison of patient outcomes in East London. *Behavioural and Cognitive Psychotherapy*, 35, 293–301. <http://dx.doi.org/10.1017/S1352465807003645>
- Del Re, A. C., & Hoyt, W. T. (2014). MAd: Meta-analysis with mean differences. R package version 0.8–1 (Computer software). Available at <http://cran.r-project.org/web/packages/MAd>
- Department of Homeland Security. (2012). Yearbook of Immigration Statistics. Retrieved from <http://www.dhs.gov/yearbook-immigration-statistics-2012-refugees-and-asylees>
- Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science*, 19, 1–15. <http://dx.doi.org/10.1002/bs.3830190102>
- Droždek, B., & Bolwerk, N. (2010). Group therapy with traumatized asylum seekers and refugees: For whom it works and for whom it does not? *Traumatology*, 16, 160–167. <http://dx.doi.org/10.1177/1534765610388299>
- Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: A systematic review. *Lancet*, 365, 1309–1314. [http://dx.doi.org/10.1016/S0140-6736\(05\)61027-6](http://dx.doi.org/10.1016/S0140-6736(05)61027-6)
- Fernando, G. A., Miller, K. E., & Berger, D. E. (2010). Growing pains: The impact of disaster-related and daily stressors on the psychological and psychosocial functioning of youth in Sri Lanka. *Child Development*, 81, 1192–1210. <http://dx.doi.org/10.1111/j.1467-8624.2010.01462.x>
- Foa, E. B., Cashman, L., Jaycox, L., & Perry, K. (1997). The validation of a self-report measure of posttraumatic stress disorder: The Posttraumatic Diagnostic Scale. *Psychological assessment*, 9, 445–451. <http://dx.doi.org/10.1037/1040-3590.9.4.445>
- Gerger, H., Munder, T., & Barth, J. (2014). Specific and nonspecific psychological interventions for PTSD symptoms: A meta-analysis with problem complexity as a moderator. *Journal of Clinical Psychology*, 70, 601–615. <http://dx.doi.org/10.1002/jclp.22059>



- Gwozdziwycz, N., & Mehl-Madrona, L. (2013). Meta-analysis of the use of narrative exposure therapy for the effects of trauma among refugee populations. *The Permanente Journal*, 17, 70–76.
- Halvorsen, J. O., & Stenmark, H. (2010). Narrative exposure therapy for posttraumatic stress disorder in tortured refugees: A preliminary uncontrolled trial. *Scandinavian Journal of Psychology*, 51, 495–502. <http://dx.doi.org/10.1111/j.1467-9450.2010.00821.x>
- Hamilton, M. (1986). The Hamilton Rating Scale for Depression. *Assessment of Depression*, 143–152. [http://dx.doi.org/10.1007/978-3-642-70486-4\\_14](http://dx.doi.org/10.1007/978-3-642-70486-4_14)
- Hansen, N. B., Lambert, M. J., & Forman, E. M. (2002). The psychotherapy dose-response effect and its implications for treatment delivery services. *Clinical Psychology: Science and Practice*, 9, 329–343. <http://dx.doi.org/10.1093/clipsy.9.3.329>
- \*Hensel-Dittmann, D., Schauer, M., Ruf, M., Catani, C., Odenwald, M., Elbert, T., & Neuner, F. (2011). Treatment of traumatized victims of war and torture: A randomized controlled comparison of narrative exposure therapy and stress inoculation training. *Psychotherapy and Psychosomatics*, 80, 345–352. <http://dx.doi.org/10.1159/000327253>
- \*Hijazi, A. M., Lumley, M. A., Ziadni, M. S., Haddad, L., Rapport, L. J., & Arnetz, B. B. (2014). Brief narrative exposure therapy for posttraumatic stress in Iraqi refugees: A preliminary randomized clinical trial. *Journal of Traumatic Stress*, 27, 314–322. <http://dx.doi.org/10.1002/jts.21922>
- \*Hinton, D. E., Chhean, D., Pich, V., Safren, S. A., Hofmann, S. G., & Pollack, M. H. (2005). A randomized controlled trial of cognitive-behavior therapy for Cambodian refugees with treatment-resistant PTSD and panic attacks: A cross-over design. *Journal of Traumatic Stress*, 18, 617–629. <http://dx.doi.org/10.1002/jts.20070>
- \*Hinton, D. E., Hofmann, S. G., Pollack, M. H., & Otto, M. W. (2009). Mechanisms of efficacy of CBT for Cambodian refugees with PTSD: Improvement in emotion regulation and orthostatic blood pressure response. *CNS Neuroscience & Therapeutics*, 15, 255–263. <http://dx.doi.org/10.1111/j.1755-5949.2009.00100.x>
- \*Hinton, D. E., Pham, T., Tran, M., Safren, S. A., Otto, M. W., & Pollack, M. H. (2004). CBT for Vietnamese refugees with treatment-resistant PTSD and panic attacks: A pilot study. *Journal of Traumatic Stress*, 17, 429–433. <http://dx.doi.org/10.1023/B:JOTS.0000048956.03529.f4>
- Hollifield, M., Warner, T. D., Lian, N., Krakow, B., Jenkins, J. H., Kesler, J., . . . Westermeyer, J. (2002). Measuring trauma and health status in refugees: A critical review. *Journal of the American Medical Association*, 288, 611–621. <http://dx.doi.org/10.1001/jama.288.5.611>
- Kalt, A., Hossain, M., Kiss, L., & Zimmerman, C. (2013). Asylum seekers, violence and health: A systematic review of research in high-income host countries. *American Journal of Public Health*, 103, 30–42. <http://dx.doi.org/10.2105/AJPH.2012.301136>
- Keller, A., Lhewa, D., Rosenfeld, B., Sachs, E., Aladjem, A., Cohen, I., . . . Porterfield, K. (2006). Traumatic experiences and psychological distress in an urban refugee population seeking treatment services. *Journal of Nervous and Mental Disease*, 194, 188–194. <http://dx.doi.org/10.1097/01.nmd.0000202494.75723.83>
- Kessler, R. C., Chiu, W. T., Demler, O., Merikangas, K. R., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey replication. *Archives of General Psychiatry*, 62, 617–627. <http://dx.doi.org/10.1001/archpsyc.62.6.617>
- Kim, D. M., Wampold, B. E., & Bolt, D. M. (2006). Therapist effects in psychotherapy: A random-effects modeling of the National Institute of Mental Health treatment of depression collaborative research program data. *Psychotherapy Research*, 16, 161–172. <http://dx.doi.org/10.1080/10503300500264911>
- Kruse, J., Joksimovic, L., Cavka, M., Wöller, W., & Schmitz, N. (2009). Effects of trauma-focused psychotherapy upon war refugees. *Journal of Traumatic Stress*, 22, 585–592.
- Lambert, J. E., Holzer, J., & Hasbun, A. (2014). Association between parents' PTSD severity and children's psychological distress: A meta-analysis. *Journal of Traumatic Stress*, 27, 9–17. <http://dx.doi.org/10.1002/jts.21891>
- Lutz, W., Leon, S. C., Martinovich, Z., Lyons, J. S., & Stiles, W. B. (2007). Therapist effects in outpatient psychotherapy: A three-level growth curve approach. *Journal of Counseling Psychology*, 54, 32–39. <http://dx.doi.org/10.1037/0022-0167.54.1.32>
- Meffert, S. M., Abdo, A. O., Alla, O. A. A., Elmakki, Y. O. M., Omer, A. A., Yousif, S., . . . Marmar, C. R. (2014). A pilot randomized controlled trial of interpersonal psychotherapy for Sudanese refugees in Cairo, Egypt. *Psychological Trauma: Theory, Research, Practice, and Policy*, 6, 240–249. <http://dx.doi.org/10.1037/a0023540>
- Meichenbaum, D. (2007). Stress inoculation training: A preventative and treatment approach. In P. M. Lehrer, R. L. Woolfolk, & W. S. Sime (Eds.), *Principles and practice of stress management* (pp. 497–518). New York, NY: Guilford Press.
- Miller, K. E. (1999). Rethinking a familiar model: Psychotherapy and the mental health of refugees. *Journal of Contemporary Psychotherapy*, 29, 283–306. <http://dx.doi.org/10.1023/A:1022926721458>
- Miller, K. E., Martell, Z. L., Pazdirek, L., Caruth, M., & Lopez, D. (2005). The role of interpreters in psychotherapy with refugees: An exploratory study. *American Journal of Orthopsychiatry*, 75, 27–39. <http://dx.doi.org/10.1037/0002-9432.75.1.27>
- Miller, K. E., Omidian, P., Rasmussen, A., Yaqubi, A., & Daudzai, H. (2008). Daily stressors, war experiences, and mental health in Afghanistan. *Transcultural Psychiatry*, 45, 611–638. <http://dx.doi.org/10.1177/1363461508100785>
- Miller, K. E., & Rasmussen, A. (2010). War exposure, daily stressors, and mental health in conflict and post-conflict settings: Bridging the divide between trauma-focused and psychosocial frameworks. *Social Science & Medicine*, 70, 7–16. <http://dx.doi.org/10.1016/j.socscimed.2009.09.029>
- Mirdal, G. M., Ryding, E., & Essendrop Sondej, M. (2012). Traumatized refugees, their therapists, and their interpreters: Three perspectives on psychological treatment. *Psychology and Psychotherapy: Theory, Research and Practice*, 85, 436–455. <http://dx.doi.org/10.1111/j.2044-8341.2011.02036.x>
- Mollica, R. F., Caspi-Yavin, Y., Bollini, P., Truong, T., Tor, S., & Lavelle, J. (1992). The Harvard Trauma Questionnaire. Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. *Journal of Nervous and Mental Disease*, 180, 111–116. <http://dx.doi.org/10.1097/00005053-199202000-00008>
- Morina, N., Maier, T., Bryant, R., Knaevelsrud, C., Wittmann, L., Rufer, M., . . . Müller, J. (2012). Combining biofeedback and narrative exposure therapy for persistent pain and PTSD in refugees: A pilot study. *European Journal of Psychotraumatology*, 3. Advance online publication. <http://dx.doi.org/10.3402/ejpt.v3i0.17660>
- Murray, K. E., Davidson, G. R., & Schweitzer, R. D. (2010). Review of refugee mental health interventions following resettlement: Best practices and recommendations. *American Journal of Orthopsychiatry*, 80, 576–585. <http://dx.doi.org/10.1111/j.1939-0025.2010.01062.x>
- Murray, L. K., Dorsey, S., Haroz, E., Lee, C., Alsiahy, M. M., Haydary, A., & Bolton, P. (2014). A common elements treatment approach for adult mental health problems in low-and middle-income countries. *Cognitive and Behavioral Practice*, 21, 111–123. <http://dx.doi.org/10.1016/j.cbpra.2013.06.005>
- \*Neuner, F., Kurreck, S., Ruf, M., Odenwald, M., Elbert, T., & Schauer, M. (2010). Can asylum-seekers with posttraumatic stress disorder be successfully treated? A randomized controlled pilot study. *Cognitive Behaviour Therapy*, 39, 81–91. <http://dx.doi.org/10.1080/16506070903121042>

- \*Neuner, F., Onyut, P. L., Ertl, V., Odenwald, M., Schauer, E., & Elbert, T. (2008). Treatment of posttraumatic stress disorder by trained lay counselors in an African refugee settlement: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 76, 686–694. <http://dx.doi.org/10.1037/0022-006X.76.4.686>
- \*Neuner, F., Schauer, M., Klaschik, C., Karunakara, U., & Elbert, T. (2004). A comparison of narrative exposure therapy, supportive counseling, and psychoeducation for treating posttraumatic stress disorder in an African refugee settlement. *Journal of Consulting and Clinical Psychology*, 72, 579–587. <http://dx.doi.org/10.1037/0022-006X.72.4.579>
- Nicholl, C., & Thompson, A. (2004). The psychological treatment of posttraumatic stress disorder (PTSD) in adult refugees: A review of the current state of psychological therapies. *Journal of Mental Health*, 13, 351–362. <http://dx.doi.org/10.1080/09638230410001729807>
- Nickerson, A., Bryant, R. A., Silove, D., & Steel, Z. (2011). A critical review of psychological treatments of posttraumatic stress disorder in refugees. *Clinical Psychology Review*, 31, 399–417. <http://dx.doi.org/10.1016/j.cpr.2010.10.004>
- Okiishi, J., Lambert, M. J., Nielsen, S. L., & Ogles, B. M. (2003). Waiting for supershrink: An empirical analysis of therapist effects. *Clinical Psychology & Psychotherapy*, 10, 361–373. <http://dx.doi.org/10.1002/cpp.383>
- Orwin, R. G. (1983). A fail-safe N for effect size in meta-analysis. *Journal of Educational Statistics*, 8, 157–159. <http://dx.doi.org/10.2307/1164923>
- \*Otto, M. W., Hinton, D., Korbly, N. B., Chea, A., Ba, P., Gershuny, B. S., & Pollack, M. H. (2003). Treatment of pharmacotherapy-refractory posttraumatic stress disorder among Cambodian refugees: A pilot study of combination treatment with cognitive-behavior therapy vs sertraline alone. *Behaviour Research and Therapy*, 41, 1271–1276. [http://dx.doi.org/10.1016/S0005-7967\(03\)00032-9](http://dx.doi.org/10.1016/S0005-7967(03)00032-9)
- Palic, S., & Elklit, A. (2011). Psychosocial treatment of posttraumatic stress disorder in adult refugees: A systematic review of prospective treatment outcome studies and a critique. *Journal of Affective Disorders*, 131(1), 8–23. <http://dx.doi.org/10.1016/j.jad.2010.07.005>
- Panther-Brick, C., Eggerman, M., Mojadidi, A., & McDade, T. W. (2008). Social stressors, mental health, and physiological stress in an urban elite of young Afghans in Kabul. *American Journal of Human Biology*, 20, 627–641. <http://dx.doi.org/10.1002/ajhb.20797>
- Patel, N. (2003). Speaking with the silent: Addressing issues of disempowerment when working with refugee people. In R. Tribe & H. Raval (Eds.), *Working with interpreters in mental health* (pp. 219–237). East Sussex, England: Bruner Routledge.
- Patel, V. (2009). The future of psychiatry in low- and middle-income countries. *Psychological Medicine*, 39, 1759–1762. <http://dx.doi.org/10.1017/S0033291709005224>
- Patel, V., Chowdhary, N., Rahman, A., & Verdeli, H. (2011). Improving access to psychological treatments: Lessons from developing countries. *Behaviour Research and Therapy*, 49, 523–528. <http://dx.doi.org/10.1016/j.brat.2011.06.012>
- Patel, V., Weiss, H. A., Chowdhary, N., Naik, S., Pednekar, S., Chatterjee, S., . . . Kirkwood, B. R. (2010). Effectiveness of an intervention led by lay health counsellors for depressive and anxiety disorders in primary care in Goa, India (MANAS): A cluster randomised controlled trial. *Lancet*, 376, 2086–2095. [http://dx.doi.org/10.1016/S0140-6736\(10\)61508-5](http://dx.doi.org/10.1016/S0140-6736(10)61508-5)
- Paunovic, N., & Öst, L. G. (2001). Cognitive-behavior therapy vs exposure therapy in the treatment of PTSD in refugees. *Behaviour Research and Therapy*, 39, 1183–1197. [http://dx.doi.org/10.1016/S0005-7967\(00\)00093-0](http://dx.doi.org/10.1016/S0005-7967(00)00093-0)
- Rasmussen, A., Keatley, E., & Joscelyne, A. (2014). Posttraumatic stress in emergency settings outside North America and Europe: A review of the emic literature. *Social Science & Medicine*, 109, 44–54. <http://dx.doi.org/10.1016/j.socscimed.2014.03.015>
- R Core Team. (2014). R: A language and environment for statistical computing (Computer software). Vienna, Austria: R Foundation for Statistical Computing. Available at <http://www.R-project.org/>
- Robjant, K., Hassan, R., & Katona, C. (2009). Mental health implications of detaining asylum seekers: Systematic review. *The British Journal of Psychiatry*, 194, 306–312. <http://dx.doi.org/10.1192/bjp.bp.108.053223>
- Rosenthal, R. (1991). *Meta-analytic procedures for social research* (Rev. Ed.). Thousand Oaks, CA: Sage. <http://dx.doi.org/10.4135/9781412984997>
- Ryan, D., Dooley, B., & Benson, C. (2008). Theoretical perspectives on post-migration adaptation and psychological well-being among refugees: Towards a resource-based model. *Journal of Refugee Studies*, 21, 1–18. <http://dx.doi.org/10.1093/jrs/fem047>
- Schauer, M., Neuner, F., & Elbert, T. (2011). *Narrative exposure therapy. A short-term treatment for traumatic stress disorders*. Cambridge, MA: Hogrefe & Huber.
- Schulz, P. M., Resick, P. A., Huber, L. C., & Griffin, M. G. (2006). The effectiveness of cognitive processing therapy for PTSD with refugees in a community setting. *Cognitive and Behavioral Practice*, 13, 322–331. <http://dx.doi.org/10.1016/j.cbpra.2006.04.011>
- Silove, D., & Steel, Z. (2006). Understanding community psychosocial needs after disasters: Implications for mental health services. *Journal of Postgraduate Medicine*, 52, 121–125. <http://www.jpgmonline.com/text.asp?2006/52/2/121/25157>
- Slobodin, O., & de Jong, J. T. (2014). Mental health interventions for traumatized asylum seekers and refugees: What do we know about their efficacy? *The International Journal of Social Psychiatry*. Advance online publication. <http://dx.doi.org/10.1177/0020764014535752>
- Steel, Z., Chey, T., Silove, D., Marnane, C., Bryant, R. A., & van Ommeren, M. (2009). Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: A systematic review and meta-analysis. *Journal of the American Medical Association*, 302, 537–549. <http://dx.doi.org/10.1001/jama.2009.1132>
- \*Stenmark, H., Catani, C., Neuner, F., Elbert, T., & Holen, A. (2013). Treating PTSD in refugees and asylum seekers within the general health care system. A randomized controlled multicenter study. *Behaviour Research and Therapy*, 51, 641–647. <http://dx.doi.org/10.1016/j.brat.2013.07.002>
- Summerfield, D. (1999). A critique of seven assumptions behind psychological trauma programmes in war-affected areas. *Social Science & Medicine*, 48, 1449–1462. [http://dx.doi.org/10.1016/S0277-9536\(98\)00450-X](http://dx.doi.org/10.1016/S0277-9536(98)00450-X)
- Summerfield, D. (2004). Cross-cultural perspectives on the medicalization of human suffering. In G. M. Rosen (Ed.), *Posttraumatic stress disorder: Issues and controversies* (pp. 233–244). Hoboken, NJ: Wiley. <http://dx.doi.org/10.1002/9780470713570.ch12>
- \*ter Heide, F. J., Mooren, T. M., Kleijn, W., de Jongh, A., & Kleber, R. J. (2011). EMDR versus stabilisation in traumatised asylum seekers and refugees: Results of a pilot study. *European Journal of Psychotraumatology*, 2, 5881–5892. <http://dx.doi.org/10.3402/ejpt.v2i0.5881>
- Tol, W. A., Barbui, C., Galappatti, A., Silove, D., Betancourt, T. S., Souza, R., . . . van Ommeren, M. (2011). Mental health and psychosocial support in humanitarian settings: Linking practice and research. *Lancet*, 378, 1581–1591. [http://dx.doi.org/10.1016/S0140-6736\(11\)61094-5](http://dx.doi.org/10.1016/S0140-6736(11)61094-5)
- Tribe, R. (1999). Bridging the gap or damming the flow? Some observations on using interpreters/bicultural workers when working with refugee clients, many of whom have been tortured. *The British Journal of Medical Psychology*, 72, 567–576. <http://dx.doi.org/10.1348/000711299160130>
- United Nations High Commissioner for Refugees. (1951). *Convention and Protocol Relating to the Status of Refugees*. Geneva, Switzerland: Author. Retrieved from <http://www.unhcr.org/3b66c2aa10.html>

- United Nations High Commissioner for Refugees. (2013). *UNHCR statistical yearbook 2012* (12th ed.). Geneva, Switzerland: Author. Retrieved from <http://www.unhcr.org/52a7213b9.html>
- United Nations High Commissioner for Refugees. (2014). *UNHCR Global Trends 2013*. Geneva, Switzerland: Author. Retrieved from <http://www.unhcr.org/5399a14f9.html>
- Wampold, B. E., Imel, Z. E., Laska, K. M., Benish, S., Miller, S. D., Flückiger, C., . . . Budge, S. (2010). Determining what works in the treatment of PTSD. *Clinical Psychology Review, 30*, 923–933. <http://dx.doi.org/10.1016/j.cpr.2010.06.005>
- Wampold, B. E., Mondin, G. W., Moody, M., Stich, F., Benson, K., & Ahn, H. (1997). A meta-analysis of outcome studies comparing bona fide psychotherapies: Empirically, “all must have prizes.” *Psychological Bulletin, 122*, 203–215. <http://dx.doi.org/10.1037/0033-2909.122.3.203>
- Weine, S., Kulauzovic, Y., Klebic, A., Besic, S., Mujagic, A., Muzurovic, J., . . . Rolland, J. (2008). Evaluating a multiple-family group access intervention for refugees with PTSD. *Journal of Marital and Family Therapy, 34*, 149–164. <http://dx.doi.org/10.1111/j.1752-0606.2008.00061.x>
- Westermeyer, J. (1990). Working with an interpreter in psychiatric assessment and treatment. *Journal of Nervous and Mental Disease, 178*, 745–749. <http://dx.doi.org/10.1097/00005053-199012000-00003>
- World Health Organization. *Composite International Diagnostic Interview (CIDI): Interviewer's manual*. Geneva: World Health Organization.

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