

Evidence-based psychological interventions for adult survivors of torture and trauma: A 30-year review

Colleen A. McFarlane and Ida Kaplan

The Victorian Foundation for Survivors of Torture

Abstract

In this paper we review research evidence on psychosocial interventions for adult survivors of torture and trauma. We identified 40 studies from 1980 to 2010 that investigated interventions for adult survivors of torture and trauma. Population subtypes include resettled refugees, asylum seekers, displaced persons, and persons resident in their country of origin. Settings include specialized services for torture and trauma, specialized tertiary referral clinics, community settings, university settings, as well as psychiatric and multidisciplinary mental health services. Interventions were delivered as individual or group treatments and lasted from a single session to 19 years duration. The studies employed randomized controlled trials, nonrandomized comparison studies and single cohort follow-up studies. In all, 36 of the 40 studies (90%) demonstrated significant improvements on at least one outcome indicator after an intervention. Most studies (60%) included participants who had high levels of posttraumatic stress symptomatology. Improvements in symptoms of posttraumatic stress, depression, anxiety, and somatic symptoms were found following a range of interventions. Little evidence was available with regard to the effect on treatment outcomes of the amount, type, or length of treatment, the influence of patient characteristics, maintenance of treatment effects, and treatment outcomes other than psychiatric symptomatology. The review highlights the need for more carefully designed research that addresses the shortcomings of current studies and that integrates the experience of expert practitioners.

Keywords

refugees, trauma, torture, treatment interventions, evidence, review, adults

Corresponding author:

Colleen A. McFarlane, The Victorian Foundation for Survivors of Torture, 6 Gardiner Street, Brunswick, VIC 3056, Australia.

Email: mcfarlanec@foundationhouse.org.au

Increasing awareness among mental health professionals about the effects of torture, systematic persecution, and organized violence amongst civilian populations has developed in the 20th century. Thirty years ago, the arrival of survivors of torture in the West led to the establishment of a range of services to address their needs. More recently, interventions for torture and trauma have begun to be delivered to those who are forcibly displaced to neighboring countries or who remain within their country of origin. Consequently, treatment settings vary widely and include rehabilitation, psychiatric, psychological, psychosocial, and community-based services. Accordingly, different approaches have been taken regarding the relative emphasis on biomedical, psychosocial, and rights-based interventions (Jaranson, 1995). This diversity in approaches has led to increasing debate about the effectiveness of different interventions for survivors of torture and trauma (Basoglu, 2006; Sjolund, Kastrup, Montgomery, & Persson, 2009). In this paper, we set out a comprehensive review of the existing evidence on the effectiveness of interventions in order to advance evidence-based practice with survivors of torture and trauma.

Three previous reviews have been conducted with adult refugees and asylum seekers but these restricted their focus to treatments for PTSD. In the most rigorous of these reviews, Nickerson, Bryant, Silove, and Steel (2011) critically assessed 19 trauma-focused or multimodal interventions for refugees and asylum seekers and concluded there was cautious support for trauma-focused treatments and limited evidence available for multimodal interventions. Crumlish and O'Rourke (2010) located 10 randomized controlled trials (RCTs) and found evidence to support the use of cognitive behavioral therapy (CBT) and narrative exposure therapy (NET). Nicholl and Thompson (2004) reviewed 10 studies that evaluated interventions amongst refugees and asylum seekers with PTSD and found improvements after a range of group and individual interventions.

Given that it is well documented that survivors of torture and trauma present with a range of conditions and difficulties that are not restricted to PTSD alone (e.g., Campbell, 2007; Herman, 1997; van Velsen, Gorst-Unsworth, & Turner, 1996), there is a need for a broader review of intervention studies. As well, according to the American Psychological Association's (APA) Presidential Task Force on Evidence Based Practice (EBP), EBP requires the integration of "multiple streams of research evidence, including but not limited to RCTs, into the intervention process" (American Psychological Association [APA], 2005, p. 6).

In this review, we included studies published since 1980 that examined mental health outcomes for survivors of torture and trauma, as this is when substantive research in this field began. Here, the term "survivor of torture and trauma" includes refugees, as defined by the United Nations High Commission for Refugees¹ (UNHCR, 1951, Article 1), asylum seekers who apply to be recognized as refugees, displaced persons, and people living in their country of origin who have suffered persecution and gross human rights violations. Studies that were included used multiple types of research designs and were not restricted to participants

with PTSD. The aim was to draw conclusions about the broader population of adult survivors of torture and trauma for practice and future research. We acknowledge that interventions may target children and families but the review is restricted to adults.

Literature search strategy

Studies included in this review were published between 1980 and 2010. Searches were conducted in PsycINFO, PubMed, PILOTS, and Social Services Abstracts using the terms “refugee,” “torture,” “asylum seeker” with “intervention,” “treatment,” “therapy,” “rehabilitation,” or “service.” Additional studies were identified by following up references. Interventions were included which targeted the psychosocial sequelae of torture and trauma. The studies used experimental, quasiexperimental, or single cohort designs. Broad inclusion criteria were adopted as stricter criteria would have limited the meaningfulness of the review (Wolpert et al., 2006). For example, very brief (i.e., single session) interventions with survivors in their countries of origin were included in order to capture the work being done there. Two studies about treatment with medication only were excluded due to the focus on psychosocial outcomes (Kinzie & Leung, 1989; Smajkic et al., 2001). It was not feasible to include case studies or articles written in languages other than English.

Scope of the review

We identified 40 studies that empirically investigated interventions for survivors of torture and trauma. They were conducted with refugees living in countries of resettlement ($n=24$), people displaced to or seeking asylum in another country ($n=9$), and in the country of origin with survivors of persecution or gross human rights violations ($n=12$)². Across these samples, three design types were identified; RCTs ($n=11$), nonrandomized comparison studies ($n=8$), and single cohort before and after studies ($n=21$). Interventions included multicomponent rehabilitation and outpatient psychiatric services, CBT, cognitive processing therapy (CPT), exposure therapy (ET), healing and reconciliation workshops, NET, psychodynamic therapy, psychotherapy, stress and coping skills training, testimony therapy (TT), and trauma counseling. Interventions were delivered individually or as groups, lasting between one session and 19 years of treatment. Most studies recruited participants seeking services ($n=31$), and the rest recruited directly from the community ($n=12$).

We rated the methodological quality of the studies using the Quality Assessment Tool (Thomas, Ciliska, Dobbins, & Micucci, 2004), which has been ranked as one of the best available for systematic reviews with multiple study types (Deeks et al., 2003). Studies were assigned weak, weak-moderate, moderate, moderate-strong, and strong ratings in an adapted version of the tool (Table 1)³. Interrater agreement was assessed for 12 (30%) of the studies. Perfect agreement on the 5-point

Table 1. Significance and effect sizes by type of intervention

Study	Intervention type	Design	Quality	Range of effect sizes or significance
Resettled Refugees				
Muller et al., 2009	Biofeedback	SC	Moderate	0.4 to 1.1
Hinton et al., 2004	CBT	RCT	Moderate	2.0 to 4.3
Hinton et al., 2005	CBT	RCT	Strong	2.2 to 3.8
Hinton et al., 2009	CBT	RCT	Moderate-strong	1.2 to 2.9
Otto et al., 2003;	CBT	RCT	Moderate	0.6 to 0.8
D'Ardenne et al., 2007	CBT	SC	Weak	$p < 0.05$
Schultz et al., 2006	CPT	SC	Moderate	2.0 to 3.4
Paunovic & Ost, 2001	ET	RCT	Moderate-strong	$p < .001$
Kivling-Boden & Sundbom, 2001	Psychiatric service	SC	Moderate	<i>ns</i>
Boehnlein et al., 1985, 2004	Psychiatric service	SC	Moderate	N/A
Mollica et al., 1990	Psychiatric service	SC	Moderate	<i>ns</i> to $p < .001$
Westermeyer et al., 1984	Psychiatric service	NRC	Moderate	$p < .01$
Westermeyer, 1988	Psychiatric service	NRC	Weak	$p < 0.05$
Carlsson et al., 2005, 2010	Multidisciplinary rehab	SC	Moderate	0.3 to 0.45
Palic & Elklit, 2009	Multidisciplinary rehab + CBT	SC	Weak	0.3 to 0.6
Holmqvist et al., 2006	Psychodynamic therapy	SC	Moderate	1.1 to 3.0
Snodgrass et al., 1993	Stress and coping group	NRC	Weak	$p < .05$
Weine et al., 1998	Testimony therapy	SC	Moderate	$p < .001$
Kruse et al., 2009	Trauma-focused therapy	NRC	Moderate	1.4 to 2.7
Asylum seekers				
Halvorsen & Stenmark, 2010	NET	SC	Moderate	0.7 to 1.2
Neuner et al., 2010		RCT	Strong	0.3 to 1.6
Renner, 2009	Group or individual therapy	SC	Moderate	0.8
Drozdek, 1997	Group therapy	NRC	Weak	<i>ns</i>

(continued)

Table 1. Continued

Study	Intervention type	Design	Quality	Range of effect sizes or significance
Birck, 2001	Multidisciplinary treatment	SC	Moderate	<i>ns</i> to $p < .05$
Displaced persons				
Arcel et al., 2003	Multidisciplinary treatment	SC	Moderate	$p < .05$
Tol et al., 2009	Multidisciplinary treatment	NRC	Weak	0.4 to 0.6
Neuner et al., 2004,	NET	RCT	Strong	1.6 to 1.9
Neuner et al., 2008	NET	RCT	Moderate-strong	0.1 to 1.5
Country of origin survivors				
Bouwer & Stein, 1998	Cognitively oriented therapy	SC	Moderate	$p < .01$
Curling, 2005	Group empowerment	SC	Weak	Criterion changes
Yeomans et al., 2010	Healing and reconciliation group	RCT	Strong	$p < .05$
Salo et al., 2008	Individual or group therapy	NRC	Weak	$p < .05$
Reeler & Mbape, 1998	Individual or group therapy	SC	Weak	Criterion changes
McColl et al., 2010	Multidisciplinary rehab service	SC	Weak	$p < 0.02$
Bichescu et al., 2007	NET	RCT	Strong	0.97 to 3.15
Priebe et al., 2010	Specialized treatment service	SC	Moderate	$p < .001$
Lekskes et al., 2007	Trauma counseling	NRC	Moderate	Criterion changes
Igreja et al., 2004	TT	RCT	Strong	$p < 0.02$
Agger et al., 2009	TT	SC	Moderate	Criterion changes

Note: RCT: Randomized controlled trials; NRC: Nonrandom comparison; SC: Single cohort; Nonrandom: Nonrandom comparison; *ns*: non significant.

scoring system was obtained for nine of the 12 (75%) yielding a Spearman's rho of 0.91. Scoring on each of the remaining three studies involved only one place difference on the scoring guide. Approximately half the studies had moderate methodological quality, one quarter were strong or moderate to strong, and one quarter were weak. The strongest ratings were given to the RCTs and so we present them first, followed by the comparison studies, and then single cohort studies.

Randomized controlled trials

In all, 11 RCTs were conducted which mainly examined individual psychotherapies (NET, CBT, TT, and ET) that targeted PTSD symptoms. The trials included comparison of the interventions to each other, a placebo, or no intervention.

RCTs with resettled refugees

Of the five RCTs with resettled refugees, three involved Cambodian refugees diagnosed with PTSD who had not responded to supportive counseling or a selective serotonin reuptake inhibitor (SSRI; Hinton et al., 2005; Hinton, Hofmann, Pollack, & Otto, 2009; Otto et al., 2003). They received a culturally adapted form of CBT for 12 weeks and were compared to a delayed treatment group. In the most recent study of 24 Cambodians, Hinton et al. (2009) found significant improvements in PTSD symptoms, affect regulation, panic, and systolic blood pressure compared to delayed treatment (Cohen's d effect sizes: 1.31 to 2.84). Hinton's earlier study, (Hinton et al., 2005) with 40 Cambodian participants found significant improvements in PTSD, panic, generalized anxiety, and depression, with large effect sizes (2.2 to 3.8) for immediate versus delayed treatment. Change in symptom levels also indicated clinically significant change was maintained at 12-week follow-up. Otto et al. (2003) recruited 10 Cambodians with PTSD said to have "high comorbidity." Half the participants received either sertraline treatment or sertraline plus 10 CBT sessions. On comparison, group differences were found for PTSD, anxiety, and somatic symptoms ($d=0.45$ to 1.77).

Hinton et al. (2004) conducted an RCT with 12 Vietnamese refugees who received 11 sessions of culturally adapted CBT and were compared to delayed treatment. Significant improvement in PTSD symptoms, depression and panic attacks was found for the treatment group ($d=2.0$ to 4.3). Paunovic and Ost (2001) recruited 20 refugees with PTSD from several health services into an RCT. Participants received 16 to 20 weekly sessions of CBT or ET. The majority of patients had received prior psychiatric treatment. The assessors were not blind, the same therapist was used, and most patients (75%) received pharmacological treatment during the trial. Paunovic and Ost found CBT and ET were equally effective. Both were associated with a significant decrease in PTSD, anxiety, and depression symptoms, and significant improvements in quality of life and positive schemas (i.e., world assumptions). The effects were maintained at 6-month follow-up.

RCTs with asylum seekers

Neuner, Kurreck, Ruf, Odenwald, and Schauer (2010) carried out an RCT with 32 asylum seekers in Germany. Participants with PTSD received treatment as usual (public mental health care) or five to 17 sessions of NET. The amount of "treatment as usual" was not known. All participants, except one in each treatment

condition, remained asylum seekers through the study. After treatment, NET participants had significantly improved PTSD and pain symptoms compared to treatment as usual. Small to high within-group effect sizes ($d = 1.6$ for PTSD, $d = 0.3$ for pain) and medium to high between-group effect sizes ($d = 1.04$ for PTSD, $d = 0.65$ for pain) were found. There were no improvements in depression. At 6 months all participants except one still had PTSD.

RCTs with displaced persons

Two studies by Neuner and colleagues (Neuner et al., 2008; Neuner et al., 2004) examined NET with displaced Sudanese, Somalis, and Rwandans living in refugee camps in Uganda. Participants were drawn from a community survey after they were found to meet criteria for PTSD. Neuner et al. (2008) randomly assigned 277 Somali and Rwandan participants to six sessions of NET, six sessions of “trauma counseling” (TC), or a “no treatment” monitoring group. The TC intervention was delivered by trained lay counselors and designed to simulate routine care conditions. There were significant differences between active and control treatments for all symptoms and PTSD diagnosis. Both NET and TC groups showed significantly lower levels of PTSD after treatment that were maintained at 6-month follow-up. At 6 months, large effect sizes were found for NET and TC with regard to PTSD symptoms ($d = 1.4$ and 1.5) and medium effect sizes for physical health symptoms ($d = 0.9$ and 0.5). At 6 months; 69.8% of NET, 65.2% of TC, and 36.8% of monitoring participants no longer had PTSD.

Earlier, Neuner, Schauer, Klaschik, Karunakara, and Elbert (2004) recruited 43 displaced Sudanese from Uganda diagnosed with PTSD and assigned them four sessions of NET, four sessions of supportive counseling, or one session of psychoeducation. At 1-year follow-up, there were significant improvements in PTSD with NET, compared to supportive counseling and psychoeducation ($d = 1.9$). One year later, only 29% of NET participants still had PTSD compared to 79% of those who received supportive counseling and 80% of psychoeducation participants. NET was superior to supportive counseling but not psychoeducation in terms of quality of life measures and psychological functioning. All groups improved on anxiety, depression, and overall mental health.

RCTs in the country of origin

Bichescu, Neuner, Schauer, and Elbert (2007) studied 18 Romanian survivors of political imprisonment, detained on average 42 years earlier, who had untreated, persistent PTSD diagnosis and depression. They were randomly assigned to five sessions of NET or one session of psychoeducation. At 6-month follow-up, NET participants showed significantly greater improvement than psychoeducation participants on both PTSD and depression ($d = 3.15$ and 0.97). The authors noted that while symptom scores at follow-up were “still serious,” PTSD had remitted in five NET participants and only one in the psychoeducation group.

Igreja, Kleijn, Schreuder, van Dijk, and Verschuur (2004) recruited 200 Mozambican civil war survivors with PTSD and randomly compared one session of TT with no intervention. A single session was chosen to test its feasibility. Immediately after the intervention *both* control and treatment groups had significant reductions in PTSD and psychiatric symptoms, which were also found at 11-month follow-up. The authors suggested the positive findings for both groups may have occurred because the intervention was delivered in every household in two small villages, and the communication and interaction between villagers who had and had not received TT may have created a positive domino effect for the control group.

Yeomans, Forman, Herbert, and Yuen (2010) recruited 113 Hutu and Tutsi Burundians and compared 4-day trauma healing and reconciliation workshops with and without psychoeducation to a wait list group. Most participants had been victimized by violence during or after the 1993 conflict and had moderate to high distress. The workshops aimed at fostering participant relations and reconciliation and understanding how trauma affects interpersonal relationships. Two weeks after, there was no difference in outcomes for the two workshops. Workshop participants had significantly fewer PTSD symptoms than wait-list participants but there were no differences for anxiety, depression, and somatization symptoms.

Overall, significant improvements were consistently shown for PTSD symptoms, but not for depression or other outcome measures where variable findings were evident. Active interventions consistently produced better PTSD outcomes when compared to control conditions. Of those RCTs that included follow-up, treatment effects were maintained between 3 months and 1 year later.

Nonrandom comparison studies

Eight studies used nonrandom allocation of participants to different active interventions (multidisciplinary, psychiatric, psychotherapy, a coping skills group, trauma counseling, and social skills training) that were compared with each other, with no treatment, treatment as usual, or a placebo.

Comparison studies with resettled refugees

Kruse, Joksimovic, Cavka, Woller, and Schmitz (2009) compared trauma-focused psychotherapy with treatment as usual (social counseling and medical treatment) with 64 Bosnians in Germany who had PTSD and somatoform disorder. Trauma therapy consisted of 25 hours of treatment that focused on the therapeutic alliance, psychoeducation, affect regulation, safety, and coping. Twelve months after therapy began there were significant improvements in PTSD symptoms ($d = 2.7$), global severity of psychiatric symptoms ($d = 1.4$), and mental and physical symptoms ($d = 2.4$ and 1.4). Most participants (82.4%) no longer met caseness for PTSD. No significant improvements occurred after treatment as usual.

Two studies recruited Hmong refugees who were seeking psychiatric care and compared them with groups from the community who were not seeking assistance.

Westermeyer (1988) compared outcomes for 15 participants who received three to 10 sessions of multidisciplinary outpatient treatment (psychotherapy, family therapy, and/or medication) with no treatment. Patients differed from matched controls on several factors (e.g., depression levels, professional role, medical health, marital problems). Two years after baseline, patients who had received treatment reported significantly lower symptoms of depression than participants in control conditions. Earlier, Westermeyer, Vang, and Neider (1984) recruited 97 refugees, offered 17 help-seeking subjects 6 months of psychiatric treatment and compared them to the nonhelp-seeking participants. At baseline, patients had significantly more depression, psychiatric symptoms, and Axis I disorders (depression, adjustment or schizophreniform disorder) than nonhelp-seeking participants. Two years after baseline, the treatment group was not significantly different from the comparison group on psychiatric symptoms. Both studies suggest depression and psychopathology amongst Hmong refugees improved with multidisciplinary outpatient treatment and the gains were maintained 2 years later.

Snodgrass et al. (1993) studied the effects of a 3-month coping skills group with 11 Vietnamese refugees with PTSD symptoms. Treatment consisted of six 3-hour weekly sessions (deep breathing, muscle relaxation, CBT psychoeducation, self-talk, and role modeling of stressful scenarios). The comparison no-treatment group were relatives or friends of the treatment participants ($n=6$) who showed comparable levels of PTSD symptoms. Significant reductions in PTSD symptoms and improved ability to relate to others were found amongst treatment subjects but not the control group.

Comparison studies with mixed samples of asylum seekers and refugees

Drozdek (1997) recruited 120 Bosnian concentration camp survivors in the Netherlands who were asylum seekers at the time. Most were diagnosed with PTSD and were offered psychodynamic group therapy, psychodynamic group therapy plus medication, or medication only during routine care for 6 months. Twenty percent of participants with PTSD refused treatment and formed a no-treatment comparison group. After treatment, no significant differences between the active interventions were found for PTSD diagnosis. After treatment, all treatment participants had reduced rates of PTSD (73%), which weakened by 3 years (83%). Among treatment refusers, PTSD declined to 60% at 3 years. No explanation was offered for the reduced rate amongst refusers. The study did not report whether participants had become permanently resettled during the study.

Comparison studies with displaced persons

Tol et al. (2009) examined a brief multidisciplinary intervention for 192 help-seeking Bhutanese torture survivors in Nepal and compared it with psychoeducation for nonhelp-seeking, internally displaced Nepalese. At baseline, the treatment

group had more disability (related to mental health) and functioned less well. The multidisciplinary intervention included three sessions of medical review, problem-focused counseling, psychiatric treatment, and/or physiotherapy. Five months after baseline assessment, the multidisciplinary intervention was associated with significant decreases in somatic symptoms and disability, and increases in subjective well-being, physical and social function compared to psychoeducation ($d = 0.40$ to 0.61). There were no group differences for mental health symptoms.

Comparison studies in the country of origin

Salo, Punamäki, Qouta, and El Sarraj (2008) compared individual therapy, and group therapy, with no treatment among 39 male Palestinian former political prisoners at a community mental health service. Participants were routinely allocated to 1 year of individual ($n = 19$) or group therapy ($n = 20$). Individual therapy consisted of systematic desensitization, stress and coping skills training, emotion regulation, and targeted victim, family, and social problems. Group therapy focused on trauma, social isolation, and socioeconomic problems. A no-treatment control group of 76 former political prisoners was recruited from the community. After individual therapy, PTSD symptoms decreased and post-traumatic growth increased compared to participants in control conditions. After group therapy, only intrusive symptoms decreased compared to participants in control conditions.

Lekskes, van Hooren, and de Beus (2007) carried out a study with 145 Liberian women who had survived war and sexual violence. Three groups were offered trauma counseling, social skills training, or a wait list group. Trauma counseling combined group and individual work over an average of eight sessions, while social skills training was a group intervention (number of sessions not reported). At baseline, PTSD symptoms were high in the trauma counseling group (69%) compared to social skills (15%) and wait list groups (14%). Immediately after trauma counseling, average scores changed from above PTSD caseness to below caseness (from 2.6 to 2.0 on the Harvard Trauma Questionnaire; HTQ). Among the social skills group there was a slight increase in the average number of symptoms (from 1.5 to 1.7). There was a larger increase in symptoms among the control group (from 2.0 to 2.5).

In summary, comparison studies with resettled refugees and those in their country of origin demonstrate that individual psychotherapy, multidisciplinary interventions and group therapy offer more benefits than no treatment for PTSD symptoms and depression. The two studies conducted with asylum seekers and displaced persons are too few to draw definitive conclusions.

Single cohort studies

In all, 21 single cohort studies were found that assessed a range of interventions, making this the most commonly used research design in this review.

Single cohort studies with resettled refugees

Two studies examined the effectiveness of treatment in the context of torture and trauma rehabilitation service provision. Palic and Elklit (2009) studied 26 refugees from the Danish Centre for Traumatized Refugees, who were born in several countries, and had a diagnosis of PTSD, adjustment disorder, or “enduring personality change after catastrophic experience.” They received 16 to 18 sessions of weekly multidisciplinary treatment that consisted of psychotherapy (mainly CBT with exposure) and physiotherapy. All participants also received pharmacotherapy. After treatment, the frequency of diagnosis was unchanged. However significant reductions in PTSD symptoms were found with medium effect sizes (HTQ $r=0.57$; Trauma Symptom Checklist [TSC] $r=0.52$) maintained at 6-month follow-up (HTQ $r=0.51$; TSC $r=0.38$). There were also significant reductions in symptoms of anxiety, depression, and somatic complaints maintained at 6 months. Significant reductions in Global Assessment of Functioning (GAF) scores occurred but overall remained poor. Significant increases occurred in perceived levels of social support ($r=0.62$) and were maintained at 6 months ($r=0.59$). Carlsson, Mortensen, and Kastrup (2005) and Carlsson, Olsen, Kastrup, and Mortensen (2010) recruited 55 torture survivors from the Rehabilitation and Research Centre for Torture Victims in Denmark. Participants were Middle Eastern, had not been treated for an average of 15 years, and had high symptom levels. The multidisciplinary intervention included psychotherapy, physiotherapy, social counseling, and medical intervention. Participants were assessed 8 and 23 months after baseline. At 8 months, there was no change in mental health symptoms or quality of life. At 23-month follow-up, and after an average of 14 months treatment, Carlsson et al. (2010) reported significant improvements in symptoms of PTSD, anxiety, and depression but small effect sizes ($d=0.29$ to 0.45). They concluded there was unlikely to be a real treatment effect because of the small reduction in symptoms.

Four studies have investigated treatment effectiveness in mental health outpatient services. Boehnlein et al. (2004) recruited 23 Cambodian refugees who had received an average of 13 years of psychiatric treatment (supportive therapy, medication, and social group support). Participants had both chronic PTSD and comorbid depression (those with psychosis were excluded). At follow-up, 56% had significantly improved but 44% remained impaired. PTSD and depressive symptoms were significantly improved for 57% and 83% respectively. Half had at least moderate impairment in function and 61% had relapsed (associated with stressors like family conflict, illness, or death). Most were unemployed and none had developed substantial English skills. In an earlier study, Boehnlein, Kinzie, Ben, and Fleck (1985) recruited 12 Cambodians with PTSD and various comorbid conditions; depression, somatization, alcohol abuse, dissociative and conversion disorders. After 1 year of psychiatric outpatient treatment, the course of PTSD was also variable; five patients no longer met criteria for PTSD, three had improved symptomatically but still had PTSD, three remained unchanged, and one had deteriorated. Psychiatric treatment helped reduce nightmares, sleep problems,

and startle reactions; but social isolation, shame, and avoidance remained problematic. As before, most remained unemployed and without English language skills.

Kivling-Boden and Sundbom (2001) recruited 27 refugees mostly diagnosed with PTSD at a Swedish psychiatric outpatient clinic. All were from the former Yugoslavia, had at least 1 month of psychiatric treatment and were followed up 3 years later. No significant changes in PTSD symptoms were found. Seventeen participants (63%) had PTSD both before and after: 12 maintained PTSD, five who had PTSD at baseline did not at follow-up, five developed PTSD at follow-up, and five never had PTSD. Unemployment and social welfare dependence were high. The authors suggested that the war in Kosovo may have accounted for reactivation of symptoms. Mollica et al. (1990) also examined 6 months of psychiatric treatment (medication, counseling, and social support) for 52 Cambodian, Lao, and Vietnamese refugees. Participants had diagnoses and comorbid conditions that included PTSD, affective, psychotic, and adjustment disorders. After treatment, no changes in general psychiatric symptoms were found. Vietnamese tended to be referred for schizophrenia while Cambodian and Lao refugees had higher anxiety and depression. When nationality was taken into account Cambodians showed significant improvements in depressive symptoms. Mollica et al. (1990) concluded that while treatment could be helpful and patients improved, many symptoms worsened or did not improve.

Four studies have examined individual therapies with resettled refugees. Muller et al. (2009) examined cognitive behavioral biofeedback for 11 refugees with PTSD and comorbid chronic pain referred for torture treatment in Switzerland and Germany. Kurd and Bosnian participants received 10 biofeedback sessions that included psychoeducation, relaxation strategies, and cognitive restructuring. There were large significant effect sizes for behavioral and cognitive coping with pain ($d=1.07$ and 0.99) and moderate effect sizes for pain intensity ($d=0.58$). At 3 months, effect sizes for behavioral coping, cognitive coping, and pain intensity had reduced to medium or small ($d=0.71$; 0.38 ; 0.30) and few effects were sustained. At 3 months, medium to large effect sizes emerged for PTSD, depression, and anxiety ($d=0.86$; 0.56 ; 0.66). The authors suggested longer biofeedback treatment may produce more sustained results and may be a beneficial adjunct to psychotherapy.

Holmqvist, Andersen, Anjum, and Alinder (2006) investigated psychodynamic therapy with 14 Yugoslavian refugees at the Medical Refugee Centre in Sweden. Participants completed 15 sessions on average. Improvements in PTSD symptoms were found after treatment, at 5 months and 15 months ($d=3.0$). Improvements in psychiatric symptoms were found at 5 and 15 months ($d=1.09$). Symptoms and positive self-image were assessed via self-report. At 15 months, PTSD symptoms were reduced and self-image was significantly better for the group with good outcomes compared to the poor-outcomes group. In the good-outcome group, positive self-image increased and negative self-image decreased. For the poor-outcome group, both positive and negative self-image increased during therapy but returned

to baseline at the end. The authors concluded the therapeutic process was complex and symptom level could not explain the whole recovery trajectory.

Schulz, Resick, Huber, and Griffin (2006) examined outcomes after CPT and whether having an interpreter or not influenced outcomes. Six Afghan and 47 Bosnian refugees with PTSD at a community mental health service were assigned to routine care with an interpreter or without an interpreter (i.e., a single Bosnian-speaking therapist). Significant improvements in PTSD symptoms for both groups were found after an average of 17 sessions of CPT (effect size $d=2.6$). Treatment effects were greater for those without an interpreter ($d=3.4$) than those with an interpreter ($d=2.0$) but not significantly different. Improvement in PTSD symptoms following CPT occurred regardless of whether an interpreter was present or not.

Weine, Kulenovic, Pavkovic, and Gibbons (1998) recruited 20 Bosnians from the community who received an average of six sessions of TT. PTSD diagnoses reduced from 100% pretreatment, to 75% posttreatment, and 53% at 6 months. Significant improvements in PTSD symptoms, depression symptoms, and global functioning were maintained at 6 months. Before TT depression was mild to moderate and after treatment participants were "not depressed" (on the Beck Depression Inventory).

Single cohort studies with mixed samples of refugees and asylum seekers

Three studies have examined psychotherapy with mixed samples of both refugees and asylum seekers. Recently, Halvorsen and Stenmark (2010) in Norway offered 16 refugees and asylum seekers, with a history of torture and long-standing PTSD, 10 sessions of NET. Half were Iraqi and most had refugee status (62.5%). At 6 months, significant improvements in PTSD symptoms ($d=1.16$) and depression ($d=0.84$) were found. PTSD caseness dropped to 31% after treatment and 47% at 6 months. Renner (2009) evaluated combined group and individual psychotherapy with 37 refugees and asylum seekers in Austria. Participants were recruited from a centre for victims of violence, had marked symptoms of PTSD, and were assessed after an average of 18 months of treatment (that was ongoing). Therapy included psychodrama, behavior therapy, and existential analysis. A significant reduction in global symptom severity ($d=0.77$) was found and 85% of participants reported subjective improvement. No comparisons were made between treatments or between refugees and asylum seekers. d'Ardenne, Ruaro, Cestari, Fakhoury, and Priebe (2007) studied the outcome of CBT provided to 112 refugees, asylum seekers, and non-refugees at a tertiary referral centre for treatment of PTSD. The sample included 20 different language groups. The treatment groups were refugees/asylum seekers with interpreters, refugees/asylum seekers without interpreters and non-refugees without interpreters. After nine sessions (on average), the groups had equally significant improvements in PTSD symptoms and depression. No interpreter effects were found.

Single cohort studies with asylum seekers

Birk (2001) assessed 30 asylum seekers at a multidisciplinary service for survivors of torture in Germany. Participants, mainly from the Middle East and Africa, had chronic PTSD or “enduring personality change after catastrophic stress,” and various comorbid disorders (somatoform, depressive, eating, obsessive compulsive disorders). An average of 2 years of weekly psychotherapy was offered that was mostly psychodynamic (83%), Gestalt, systemic, or CBT. At 2 years, 12 participants (40%) had been granted asylum. There was a significant decrease in intrusive symptoms of PTSD but more than half still had PTSD and most reported clinically significant depressive symptoms.

Single cohort studies in the country of origin

Three studies have examined specialized services for survivors of torture and trauma in their country of origin. McColl et al. (2010) conducted a multisite study with 306 torture survivors attending torture and trauma rehabilitation services in Egypt, Gaza, Honduras, Mexico, and South Africa. Multidisciplinary interventions differed according to client needs, service philosophies, the sociopolitical context, and resource availability. A range of interventions were offered including practical help, social care, psychotherapy, inpatient care, and others. Participants received up to 6 months of treatment. They had mood, anxiety, psychotic, substance abuse, personality, and somatoform disorders. They were highly symptomatic for PTSD and depression and had a high prevalence of head injuries. At 6 months, there were significant improvements in the level of depression and PTSD symptoms. Despite the diversity of the samples and services offered, the results suggest that modest improvements for depression and PTSD are associated with multidisciplinary interventions in low-income countries.

Priebe et al. (2010) also conducted a naturalistic multisite study at four specialized treatment centers for torture and trauma survivors in Bosnia-Herzegovina, Croatia, and Serbia. A total of 463 participants were included based on having a diagnosis of PTSD. More than half the sample (58%) had combat experience and 70% had received prior psychiatric treatment. Participants received a range of interventions that included psychoeducation, CBT, psychodynamic therapy, relaxation, eye movement desensitization and reprocessing (EMDR), and medication. The interventions were offered for variable time periods of up to 12 months. Twelve months after baseline assessment 14% of the sample no longer met criteria for PTSD. Statistically significant improvements were found for PTSD symptoms and quality of life (which remained low at overall dissatisfaction with life). In a multivariate analysis, the authors found that combat experience was associated with poorer outcomes. Arcel et al. (2003) also assessed a multidisciplinary rehabilitation program for 91 internally displaced survivors of torture in Bosnia. Most received psychiatric, medical, and psychological care and a smaller number received physiotherapy and social work. Two samples were recruited; the first

($n = 65$) received 3 months of treatment and the second ($n = 26$) received 6 months. The first sample had significant improvements in PTSD symptoms, health problems, and some psychiatric symptoms. The second group was initially more symptomatic than the first and had significant reductions in most psychiatric symptoms except depression.

Four studies have examined psychological therapies delivered in the country of origin. Agger, Raghuvanshi, Shabana Khan, Polatin, and Laursen (2009) examined a human-rights-based psychosocial intervention for 23 survivors of torture in India. Participants were recruited from a human rights agency if they presented with "psychological distress." The intervention was brief TT (three to four sessions), included a meditative component culturally familiar to participants, and a public ceremony in which written testimony from TT was read out. After treatment, participants had significant improvements in overall well-being measured by the World Health Organization Quality of Life assessment (Version 5; WHOQOL5) (from poor to moderate) but not in functioning (about life activities and participation). Bouwer and Stein (1998) recruited 14 South African survivors of torture from a hospital-based anxiety clinic and offered them 8 weeks of medication and cognitively oriented psychotherapy. All participants had PTSD and panic disorder, and 57% had comorbid depression. After treatment, there were significant reductions in depression and PTSD symptoms; 87% were rated as treatment responders and were "very much" or "much" improved on the Clinical Global Impression Scale. The authors noted that during treatment, political changes in South Africa were perceived by participants as a personal vindication of their political struggle and may have influenced the findings. Reeler and Mbape (1998) recruited 15 Zimbabwean survivors of torture from rural health services who had not been treated for over 10 years. They were offered a single psychotherapy session that included assessment, psychoeducation, problem-solving, and feedback. Despite describing the study as a single-session intervention, briefer elements of the intervention were given at 3 months, 6 months, and 1 year follow-up suggesting therapy had been ongoing. At 1 year, both PTSD and psychiatric symptoms had decreased substantially (to the psychologically healthy range). Subjective self-improvement increased moderately from 6 to 12 months. Improvement was marked for those with PTSD prior to treatment. Curling (2005) recruited 11 Namibian survivors of torture whom she described as "resistant to psychotherapy" and offered them a group empowerment workshop delivered over 4 days. Ten met criteria for depression at assessment and by 5-month follow-up, eight were in the lower ranges of depression (on the Beck Depression Inventory [BDI]). Overall anxiety levels were reduced but five participants remained in the upper range (on the State Trait Anxiety Inventory). There were increases in social functioning, energy, empowerment, and subjective experiences of general health, but decreases in emotional functioning and pain. Participant feedback indicated they were better engaged with the service.

All the studies with resettled refugees (except one) found positive results. Moderate symptom improvements for refugees with high chronicity or comorbidity

were found following multidisciplinary interventions and individual psychotherapy. Findings from the mixed studies with asylum seekers and resettled refugees were more modest. The studies with people in their country of origin showed some improvement for depression and PTSD and hold promise for interventions delivered to survivors in resource poor settings.

Discussion

This review of interventions for survivors of torture and trauma shows there is substantial variability in the research designs and samples used to assess effectiveness. Despite this variability, the findings are generally positive. In all, 36 of 40 studies (90.0%) demonstrated significant improvements on at least one outcome indicator after an intervention (Table 1). Most studies (24, 60%) only included participants with PTSD symptoms. The remainder recruited help-seeking or psychologically symptomatic participants, and participants with conditions that included PTSD, depression, anxiety, somatoform, chronic pain, adjustment and psychotic disorders. Treatment outcomes were usually assessed by changes in PTSD and depression symptoms, but anxiety, somatic symptoms, and functioning were also used. Sixteen studies reported effect sizes and the majority measured improvements in treatment outcomes that were in the moderate to large range (Table 2). Treatment effects were largely maintained 3 to 18 months after treatment (18 studies), but may be lost 2 to 3 years later (three studies). Two of these long-term studies were with asylum seekers and long-term outcomes may have been mitigated by the insecurity of their circumstances (Birck, 2001; Drozdek, 1997). Overall, the pattern of findings was similar across the different categories of the weighted studies.

There are a number of considerations and cautions in interpreting these findings. One important question is whether statistically significant differences reflect

Table 2. Significance and effect sizes by type of outcome

Outcome assessed	Total N	Percentage with significant effects ($p < 0.01$)	Range of effect sizes (d)
PTSD symptoms	33	78.8%	0.51 to 3.40
Depression symptoms	23	65.0%	0.56 to 2.30
Anxiety or panic symptoms	12	67.0%	0.56 to 4.30
Physical health, pain, or somatic symptoms	8	62.5%	0.30 to 2.10
General psychopathology	10	90.0%	0.30 to 2.77
Global function	6	83.3%	Not reported
Quality of life	5	55.0%	Not reported
Disability	2	50.0%	Not reported

clinically meaningful change (Lambert & Archer, 2006). In this review, 13 studies reported changes in PTSD diagnosis which can be considered an indicator of clinically meaningful change. Most of these (10/13) reported remission rates for PTSD diagnosis for one quarter to two thirds of participants (the range was between 0% and 71%). Several studies noted that some or many clients remained clinically highly symptomatic despite significant improvements in symptom scores (Bichescu et al., 2007; d'Ardenne et al., 2007; Neuner et al., 2010; Neuner et al., 2004; Palic & Elklit, 2009; Paunovic & Ost, 2001; Priebe et al., 2010; Tol et al., 2009). Other studies documented maintenance of some symptom levels, relapse, or deterioration (Birck, 2001; Boehnlein et al., 1985; Boehnlein et al., 2004; Carlsson et al., 2005; Drozdek, 1997; Kivling-Boden & Sundbom, 2001; Mollica et al., 1990; Paunovic & Ost, 2001). This kind of variability is consistent with broader research about PTSD interventions with civilians and military personnel in which half to two thirds of those who enter or complete treatment no longer have PTSD afterwards (Bradley, Greebe, Russ, Dutra, & Westen, 2005). Assessment of outcomes needs to follow different recovery courses with chronicity and relapse highly relevant to the adequate conceptualization of treatment outcomes (Gorman, 2001).

Treatment studies are largely conducted with survivors who have PTSD symptoms (Jordans, Tol, Komproe, & de Jong, 2009). In contrast, researchers and practitioners report an array of conditions and problems for which interventions have not been studied (e.g., generalized anxiety, somatoform, psychotic, adjustment, substance abuse, and mood disorders, loss and grief reactions, marital and family relationship difficulties; Almqvist & Broberg, 1999; Campbell, 2007; Luster, Qin, Bates, Johnson, & Rana, 2008; Momartin, Silove, Manicavasagar, & Steel, 2004; Rousseau, Mekki-berrada, & Moreau, 2001; van Velsen et al., 1996). Another limitation is that symptom-based outcomes may not reflect treatment goals. Very few studies assessed daily functioning and if they did it was usually with a global functioning measure. Similarly, disability and impairment were rarely assessed in terms of outcomes. Yet subthreshold PTSD has been associated with impairment in work, social function, and suicide attempts in other populations (Bradley et al., 2005). Other treatment goals may include improvements in relationships, identity, purpose, and meaning (Victorian Foundation for Survivors of Torture, 1998). Disruptions to value and personality systems affecting shame, guilt, distrust, sense of justice, and meaning have been widely documented (Elsass, 1998; Herman, 1997; Holmqvist et al., 2006; Salo et al., 2008; Sjolund et al., 2009; Victorian Foundation for Survivors of Torture, 1998).

Psychological sequelae for survivors of persecution is related to situations of chronic, protracted, repetitive, and intergenerational trauma and may be different from that of single traumatic events, and includes a multiplicity of symptoms, dissociation, affect dysregulation, changes to self, and interpersonal problems (Campbell, 2007; van der Kolk et al., 1996). The meaning of life which is made up of religious, cultural, and political beliefs is also changed (Janoff-Bulman, 1992; Qurioga & Jaranson, 2005). Outcome measures should be used to reflect these effects as well.

Heterogeneity of interventions and participant characteristics

The heterogeneity of the interventions studied makes comparison of treatment types difficult. Very few studies examined the same type of intervention (Table 1). Interventions differed according to client needs, client characteristics, service philosophies, research priorities, the sociopolitical context, and resource availability. Where similar types of interventions were delivered, the participants and settings varied. The studies with the strongest methodological quality ratings were the RCTs followed by nonrandom comparison and single cohort studies. The RCTs all included participants with PTSD and assessed CBT, NET, TT, and healing and reconciliation workshops in a range of settings and all had positive outcomes. A recent meta-analysis of RCTs for survivors of torture and trauma with PTSD suggested there is moderate support for NET and more cautious support for CBT as effective treatments (Crumlish & O'Rourke, 2010). However, both in this review and the one by Crumlish and O'Rourke (2010), most of the NET and CBT studies were undertaken by a single group of researchers (either Neuner et al. or Hinton et al.) and they require replication by other researchers.

In the other review which compared types of interventions, Nickerson et al. (2011) found cautious support for trauma-focused interventions (19 studies) compared to "multimodal" treatments (four studies) delivered to survivors with PTSD. In this review, of 10 studies with "multimodal" treatment that delivered interventions to a range of survivors, eight found significant positive outcomes on at least one outcome indicator (Arcel et al., 2003; McColl et al., 2010; Mollica et al., 1990; Palic & Elklit, 2009; Priebe et al., 2010; Tol et al., 2009; Westermeyer, 1988; Westermeyer et al., 1984) and two had no significant outcomes (Birck, 2001; Carlsson et al., 2005). Direct comparisons of multimodal and trauma-focused treatments were not possible. RCTs and the nonrandom comparison studies show that active interventions, regardless of their type, consistently provide benefits compared to no treatment, treatment as usual, or placebo. Eighteen of the 21 single cohort studies found significant improvements following a range of interventions, lending further support to the effectiveness of different intervention types. The high number of single cohort designs may reflect the fact that they are less resource intensive to implement than comparison designs, and may also reflect the difficulty of designing studies with truly comparable control groups that can be ethically wait-listed.

The effectiveness of a variety of active interventions in producing symptom improvement is an important finding. The heterogeneity of participants, intervention types, and range of outcome measures does not allow conclusions to be drawn about whether different treatment-specific effects are effective to a comparable degree. Moreover, it cannot be determined whether improvements can be attributed to common therapeutic ingredients such as the quality of the therapeutic alliance, the motivation of the survivor, or therapeutic ingredients such as restoration of hope (Norcross, 2011). It is likely that specific treatment elements when combined with common therapeutic ingredients are effective (Goodheart, Kazdin & Sternberg, 2006).

Participant characteristics were not consistently reported making conclusions about their effect on treatment outcomes difficult. Participants largely showed high levels of psychiatric symptoms but levels of comorbidity and general functioning were frequently not reported. Some interventions were offered shortly after trauma and torture had occurred (e.g., Drozdek, 1997) and others many years later (e.g., 42 years for Romanian political dissidents; Bichescu et al., 2007). A recent meta-analysis by Steel, Chey, et al. (2009) demonstrated that the time since conflict was significantly positively associated with levels of PTSD and depression among war-affected populations, and hence may influence treatment outcomes. Bradley et al. (2005) also found inadequate reporting of patient characteristics in broader PTSD treatment research. Yet patient characteristics are a core component of EBP and a key ingredient in deciding what treatments are suitable for whom (APA, 2005).

Transcultural issues

Participants came from a diverse range of cultural backgrounds, some residing in countries of resettlement and others still living in their country of origin. There were not enough comparison studies examining participants of different cultural backgrounds to draw conclusions about treatment effectiveness and cultural background. Fifteen of the studies reviewed (37.5%) used mixed samples and included participants with more than one cultural background. Six studies with participants from the former Yugoslavia have been carried out (Arcel et al., 2003; Drozdek, 1997; Kivling-Boden & Sundbom 2001; Kruse et al., 2009; Priebe et al., 2010; Weine et al., 1998). However, these studies included a mixture of resettled refugees, displaced persons, and asylum seekers making it difficult to relate cultural background to response to treatment interventions.

The broader transcultural and treatment literature suggests that receptivity and response to intervention type is influenced by the cultural and ethnic background of the recipient and indeed the therapist (Miranda et al., 2005; Tharp, 1991). Questions therefore remain about whether treatments should be specific or adapted to cultural groups and the relative effectiveness of different treatments for people of different cultural background. There are other dimensions of psychological pain and suffering which survivors of torture and trauma experience such as ruptures to social connections and family functioning which warrant inclusion as outcome measures and appear to be culturally relevant (McFarlane, Kaplan, & Lawrence, 2011; Tempny, 2009). Coping with symptoms and positive mental health measures tailored for cultural groups add to the meaning of “outcomes,” particularly when survivors characteristically continue to face multiple psychosocial stressors well after conflict or persecution has ceased.

In this review, the tendency for studies with resettled refugees to include participants with PTSD, while those with country-of-origin participants tended to include torture survivors, raises a question about whether researchers in the West are culturally predisposed to studying PTSD. Limitations of overreliance

on the PTSD diagnosis and PTSD symptom severity scores as outcome measures for treatment effectiveness have been discussed. The cultural relevance of PTSD, the cross-cultural validity of its criteria, and its measurement using rating scales developed in Western based populations has also been widely debated (e.g., Hollifield et al., 2002; Kleinman, 1988). There is both evidence of the universality of PTSD criteria and evidence of its lack of local specificity and clinical utility (Wessells, 2006). Hinton and Lewis-Fernandez (2011) have recommended that a wider list of symptoms than those currently comprising PTSD are needed to capture somatic symptoms and local syndromes related to trauma.

Contextual issues

The location and living conditions of participants also require consideration. Most studies were conducted with resettled refugees who were symptomatic for PTSD ($n = 24$; 60%) or torture survivors living in their country of origin (11; 27.5%). The type of intervention delivered was related to the living conditions. Refugees in high-income countries tended to receive longer interventions (more than 12 sessions and up to 13.5 years), probably reflecting treatment and research resources. Most studies in low- and middle-income countries offered short interventions, usually between one to four sessions. The mostly positive findings from these studies suggest it is feasible and useful to deliver short-term interventions in resource-poor countries.

There may also be an effect of the safety of the living conditions; however, this has not been a feature of the studies reviewed. Asylum seekers and displaced persons face the uncertainty of protection and fear of return to danger. Steel, Chey, et al. (2009) found survivors of torture and trauma with insecure residence status were more likely to experience mental health problems than those resettled in high-income countries. Ongoing traumatic events in the country of origin may exacerbate recovery for survivors of torture and trauma regardless of where they are living. Birck (2001) found that more than half her sample reported reactivation of symptoms associated with political stressors. She suggested a phasic model of trauma with reactivation of symptoms in relation to the social environment was needed. Threats to family also adversely impact the mental health of refugees (Nickerson, Bryant, Steel, Silove, & Brooks, 2010) and are likely to affect outcomes. In our practice, we find ongoing family separation, stressors, and traumatic events can impede recovery.

Other contextual factors such as psychosocial stressors may also have an impact. It is well documented that the mental health of refugees is influenced by both pre- and postmigration stressors (Porter & Haslam, 2005). Some of the research reviewed highlights the important role of postmigration stressors, such as social relationships, employment, language, and physical health on treatment outcomes (Mollica et al., 1990; Westermeyer, 1988; Westermeyer et al., 1984). For survivors in their country of origin or those who are displaced, factors such as physical insecurity, poverty, lack of medical care, and political instability may be

impediments to recovery (Lekskes et al., 2007; Neuner et al., 2004). These kinds of ecological factors are likely to influence treatment outcomes but are rarely considered in research designs.

The lack of attention to these contextual factors risks “medicalizing” the treatment of survivors of human rights violations. Although there is little dispute about the need for therapeutic treatment for a percentage of the population who are survivors (Inter-Agency Standing Committee [IASC], 2007), it is critical not to minimize the purpose of human rights violations which is the destruction of the social fabric of communities and social meanings which are internalized by individuals and communities (Hamber, 2006; Lykes & Mersky, 2006). A number of researchers and theoreticians have drawn attention to the importance of conceptualizing the effects of the destruction of political, social, and community structures as causing suffering on a scale which requires broad-based interventions (Agger, 1997; Basoglu, 2006; Summerfield, 1997). The scope of the studies reviewed, which are intrinsically focused on the well-being of individuals, provides little guidance with regard to methods to promote recovery involving communal support and broader social systems. Nevertheless, there is now increasing acknowledgement of the role of human rights in promoting not only mental health outcomes but social and economic change for those who experience disadvantage (Steel, Steel, & Silove, 2009; World Health Organization [WHO], 2005). There appears to be some agreement that both the impact of traumatic events and ongoing stressors (whether in the country of origin, during displacement, or resettlement) both require interventions (Miller & Rasmussen, 2010; Neuner, 2010).

Conclusion

In this paper we reviewed 30 years of research evidence about interventions for adult survivors of torture and trauma. Most studies (90%) demonstrated significant improvements on at least one outcome indicator after an intervention. Most studies (60%) only included participants with PTSD symptoms. Where reported, the majority of studies measured effect sizes for treatment outcomes that were moderate to large. Treatment effects were largely maintained 3 to 18 months after treatment but may be lost longer term. In terms of clinically meaningful change a small number of studies ($n = 10$) reported remission of PTSD diagnosis for one quarter to two thirds of participants, consistent with other studies of PTSD interventions.

This review highlighted a bias, particularly in Western settings, towards the inclusion of survivors of torture and trauma with PTSD symptoms only. Empirical investigations of interventions that target other types of symptom, functioning (including adaptive functioning), impairment, and other treatment goals are needed. The relevance of chronicity and comorbidity and other important participant characteristics requires systematic study. Participant samples ought to clearly indicate whether participants have received refugee status, are seeking asylum, or are displaced. Improved description and reporting about clinically

meaningful change and effect sizes would inform the clinical utility of the findings. Research designs can be improved by better calculating power, increasing sample sizes, and assessing outcomes for longer periods of follow-up. Research designs that limit variables such as types of participants and therapists are also needed. Without rigorous and consistent assessment of these factors, it is not possible to draw conclusions about the relative effectiveness of what treatments work for whom and whether one treatment is more beneficial than another.

It is important to recognize that a definitive answer to these questions may not be possible given the diversity of the experiences of survivors, their diverse cultural backgrounds, and the range of responses to traumatic events. Typically, ongoing political and social upheaval continues in countries of origin and for survivors in countries of resettlement multiple psychosocial stressors accompany the rebuilding of lives. Neglect of the wider context reinforces a narrow conceptualization of the impact of human rights violations. Effectiveness research with this population largely ignores the importance of nontreatment factors such as ongoing conflict, repeated traumatic events, and psychosocial stressors. The impact of cross-cultural diversity is often not considered but is critical for validity and generalizability of findings for particular cultural groups.

The APA's Presidential Taskforce on EBP endorses as equally relevant multiple types of research evidence (e.g., efficacy, effectiveness, cost-effectiveness, etc.) and multiple methodologies (e.g., qualitative research, case studies, effectiveness studies, efficacy studies, etc.; APA, 2005). The APA taskforce made the important point that interventions not yet studied must be regarded as untested, rather than ineffective, or for that matter, effective. Treatment research with ethnic minority groups in particular is already an underresearched area (Comas-Diaz, 2006). It is clear more research is needed to determine what kinds of interventions are best for survivors of torture and trauma. It is important to realistically appreciate the substantial resources required to progress the evidence. By marrying research, theory and expert practice the field is better placed to address the methodological challenges inherent to researching the effectiveness of complex interventions.

Acknowledgements

We thank Jeanette Lawrence and Hannah Gitsham for their assistance and advice in preparing this review.

Funding

The review was made possible with the financial support of The Myer Foundation and The William Buckland Foundation.

Notes

1. Owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country.

2. The number of studies is more than the total as some studies included two types of samples.
3. Our experience in using the Quality Assessment Tool was that the rating criteria did not account for ratings that fell between category definitions and so two new categories moderate-strong and moderate-weak were created to account for the ambiguity.

References

- Agger, A. (1997). Tensions in the psychosocial discourse: Implications for the planning of interventions with war-affected populations. *Development in Practice*, 7(4), 402–407.
- Agger, I., Raghuvanshi, L., Shabana Khan, S., Polatin, P., & Laursen, L. K. (2009). Testimonial therapy: A pilot project to improve psychological wellbeing among survivors of torture in India. *Torture*, 19(3), 204–217.
- Almqvist, K., & Broberg, A. G. (1999). Mental health and social adjustment in young refugee children 3 1/2 years after their arrival in Sweden. *Journal of the American Academy for Child and Adolescent Psychiatry*, 38(6), 723–730.
- American Psychological Association (APA). (2005). *Report of the 2005 Presidential Task Force on evidence-based practice*. Washington, DC: Author.
- Arcel, L. T., Popovic, S., Kucukalic, A., Bravo-Mehmedbasic, A., Ljubotina, D., Pusine, J., & Šaraba, L. (2003). The impact of short-term treatment on torture survivors. The change in PTSD, other psychological symptoms and coping mechanisms after treatment. In L. T. Arcel, S. Popovic, A. Kucukalic, & A. Bravo-Mehmedbasic (Eds.), *Treatment of torture and trauma survivors in a post-war society* (pp. 135–157). Sarajevo, Bosnia-Herzegovina: Association for the Rehabilitation of Torture Victims – Centre for Torture Victims (CTV Sarajevo).
- Basoglu, M. (2006). Rehabilitation of traumatised refugees and survivors of torture. *British Medical Journal*, 333, 1230–1231.
- Bichescu, D., Neuner, F., Schauer, M., & Elbert, T. (2007). Narrative exposure therapy for political imprisonment-related chronic posttraumatic stress disorder and depression. *Behavior Research and Therapy*, 45, 2212–2220.
- Birck, A. (2001). Torture victims after psychotherapy – A two year follow-up. *Torture*, 11(2), 55–58.
- Boehnlein, J. K., Kinzie, J. D., Ben, R., & Fleck, J. (1985). One-year follow-up study of posttraumatic stress disorder among survivors of Cambodian concentration camps. *American Journal of Psychiatry*, 142, 956–959.
- Boehnlein, J. K., Kinzie, J. D., Sekiya, U., Riley, C., Pou, K., & Rosborough, B. (2004). A ten-year treatment outcome study of traumatised Cambodian refugees. *The Journal of Nervous and Mental Disease*, 192(10), 658–663.
- Bouwer, C., & Stein, D. J. (1998). Survivors of torture presenting at an anxiety disorders clinic: Symptomatology and pharmacotherapy. *The Journal of Nervous and Mental Disease*, 186(5), 316–318.
- Bradley, R., Greebe, J., Russ, E., Dutra, L., & Westen, D. (2005). A multidimensional meta-analysis of psychotherapy for PTSD. *The American Journal of Psychiatry*, 162(2), 214–227.
- Campbell, T. A. (2007). Psychological assessment, diagnosis, and treatment of torture survivors: A review. *Clinical Psychology Review*, 27, 628–641.
- Carlsson, J. M., Mortensen, E. L., & Kastrup, M. (2005). A follow-up study of mental health and health-related quality of life in tortured refugees in multidisciplinary treatment. *The Journal of Nervous and Mental Disease*, 193(10), 89–95.

- Carlsson, J. M., Olsen, D. R., Kastrup, M., & Mortensen, E. L. (2010). Late mental health changes in tortured refugees in multidisciplinary treatment. *Journal of Nervous & Mental Disease*, 198(11), 824–828.
- Comas-Díaz, L. (2006). Cultural variation in the therapeutic relationship. In C. D. Goodheart, A. E. Kazdin, & R. J. Sternberg (Eds.), *Evidence-based psychotherapy: Where practice and research meet* (pp. 81–105). Washington DC: The American Psychological Society.
- Crumlish, N., & O'Rourke, K. (2010). A systematic review of treatments for post-traumatic stress disorder among refugees and asylum seekers. *The Journal of Nervous and Mental Disease*, 194(4), 237–251.
- Curling, P. (2005). The effectiveness of empowerment workshops with torture survivors. *Torture*, 15(1), 9–15.
- 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.
- Deeks, J. J., Dinnes, J., D'Amico, R., Sowden, A. J., Sakarovich, C., Song, F., . . . Altman, D. G. (2003). Evaluating non-randomised intervention studies. *Health Technology Assessment*, 7(27), 1–186.
- Drozdek, B. (1997). Follow-up study of concentration camp survivors from Bosnia-Herzegovina: Three years later. *The Journal of Nervous and Mental Disease*, 185(11), 690–694.
- Elsass, P. (1998). The existence of a torture syndrome. *Torture*, 8, 58–64.
- Goodheart, C. D., Kazdin, A. E., & Sternberg, R. J. (2006). *Evidence-based psychotherapy: Where practice and research meet*. Washington DC: The American Psychological Society.
- Gorman, W. (2001). Refugee survivors of torture: Trauma and treatment. *Professional Psychology: Research and Practice*, 32(5), 443–451.
- 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(6). doi: 10.1111/j.1467-9450.2010.00821.x
- Hamber, B. (2006). “*Nunca mas*” and the politics of the person: Can truth telling prevent the recurrence of violence? In T. A. Border (Ed.), *Telling truths: Truth telling and peace building in post-conflict societies* (pp. 207–230). Notre Dame, Indiana: University of Notre Dame Press.
- Herman, J. L. (1997). *Trauma and recovery: The aftermath of violence – From domestic abuse to political terror*. New York, NY: Basic Books.
- 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(6), 617–629.
- Hinton, D. E., Hofmann, S. G., Pollack, M. H., & Otto, M. W. (2009). Mechanisms of efficacy of CBT for Cambodian refugees with PTSD: Improvements in emotion regulation and orthostatic blood pressure response. *CNS Neuroscience and Therapeutics*, 15, 255–263.
- Hinton, D. E., & Lewis-Fernandez, R. (2011). The cross-cultural validity of posttraumatic stress disorder: Implications for DSM-5. *Depression and Anxiety*, 28. doi: 10.1002/da.20753

- 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*(5), 429–433.
- 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*(5), 611–621.
- Holmqvist, R., Andersen, K., Anjum, T., & Alinder, B. (2006). Change in self-image and PTSD symptoms in short-term therapies with traumatized refugees. *Psychoanalytic Psychotherapy, 20*(4), 251–265.
- Igreja, V., Kleijn, W. C., Schreuder, B. J. N., van Dijk, J. A., & Verschuur, M. (2004). Testimony method to ameliorate post-traumatic stress symptoms: Community-based intervention study with Mozambican civil war survivors. *British Journal of Psychiatry, 184*, 251–257.
- Inter-Agency Standing Committee (IASC) (2007). *IASC guidelines on mental health and psychosocial support in emergency settings*. Geneva, Switzerland: Author.
- Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York, NY: The Free Press.
- Jaranson, J. M. (1995). Government-sanctioned torture: Status of the rehabilitation movement. *Transcultural Psychiatry, 32*, 253–286.
- Jordans, M. J. D., Tol, W. A., Komproe, I. H., & de Jong, J. V. T. M. (2009). Systematic review of evidence and treatment approaches: Psychosocial mental health care for children in war. *Child and Adolescent Mental Health, 14*(1), 2–14.
- Kinzie, J. D., & Leung, P. (1989). Clonidine in Cambodian patients with posttraumatic stress disorder. *The Journal of Nervous and Mental Disease, 177*(9), 546–550.
- Kivling-Boden, G., & Sundbom, E. (2001). Life situation and posttraumatic symptoms: A follow-up study of refugees from the former Yugoslavia living in Sweden. *Nordic Journal of Psychiatry, 55*(6), 401–408.
- Kleinman, A. (1988). *Rethinking psychiatry*. New York, NY: Free Press.
- Kruse, J., Joksimovic, L., Cavka, M., Woller, W., & Schmitz, N. (2009). Effects of trauma-focussed psychotherapy upon war refugees. *Journal of Traumatic Stress, 22*(6), 585–592.
- Lambert, M. J., & Archer, A. (2006). Research findings on the effects of psychotherapy and their implications for practice. In C. D. Goodheart, A. E. Kazdin, & R. J. Sternberg (Eds.), *Evidence-based psychotherapy: Where research and practice meet* (pp. 111–130). Washington DC: American Psychological Association.
- Lekskes, J., van Hooren, S., & de Beus, J. (2007). Appraisal of psychosocial interventions in Liberia. *Intervention, 5*(1), 18–26.
- Luster, T., Qin, D. B., Bates, L., Johnson, D. J., & Rana, M. (2008). The Lost Boys of Sudan: Ambiguous loss, search for family, and reestablishing relationships with family members. *Family Relations, 57*, 444–456.
- Lykes, M. B., & Mersky, M. (2006). Reparations and mental health: Psychosocial interventions towards healing, human agency and rethreading social realities. In P. de Grieff (Ed.), *The handbook of reparations* (pp. 589–622). Oxford, UK: Oxford University Press.
- McColl, H., Higson-Smith, C., Gjerding, S., Omar, M. H., Abdel Rahman, B., Hamed, M., ... Awad, Z. (2010). Rehabilitation of torture survivors in five countries: Common themes and challenges. *International Journal of Mental Health Systems, 4*(16), 1–10.

- McFarlane, C. A., Kaplan, I., & Lawrence, J. A. (2011). Psychosocial indicators of wellbeing for resettled refugee children and youth: Conceptual and developmental directions. *Child Indicators Research*, 4, 647–677.
- 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.
- Miranda, J., Bernal, G., Lau, A., Kohn, L., Hwang, W.-C., & LaFromboise, T. (2005). State of the science on psychosocial interventions for ethnic minorities. *Annual Review of Clinical Psychology*, 1, 113–142.
- Mollica, R. F., Wyshak, G., Lavelle, J., Truong, T., Tor, S., & Yang, T. (1990). Assessing symptom change in Southeast Asian refugee survivors of mass violence and torture. *The American Journal of Psychiatry*, 147(1), 83–88.
- Momartin, S., Silove, D., Manicavasagar, V., & Steel, Z. (2004). Complicated grief in Bosnian refugees: Associations with posttraumatic stress disorder and depression. *Comprehensive Psychiatry*, 45(6), 475–482.
- Muller, J., Karl, A., Denke, C., Mathier, F., Dittman, J., Rohleder, N., & Knaevelsrudd, C. (2009). Biofeedback for pain management in traumatised refugees. *Cognitive Behaviour Therapy*, 38(3), 184–190.
- Neuner, F. (2010). Assisting war-torn populations – Should we prioritize daily stressors to improve mental health? Comment on Miller and Rasmussen (2010). *Social Science and Medicine*, 71(8), 1381–1384. doi: 10.1010/j.socscimed.2010.1006.1030
- Neuner, F., Kurreck, S., Ruf, M., Odenwald, M., & Schauer, E. (2010). Can asylum-seekers with posttraumatic stress disorder be successfully treated? A randomized controlled pilot study. *Cognitive Behaviour Therapy*, 39(2), 81–91.
- 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*, 46(4), 686–694.
- 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 African refugee settlement. *Journal of Consulting and Clinical Psychology*, 72(4), 579–587.
- Nicholl, C., & Thompson, A. (2004). The psychological treatment of post traumatic stress disorder (PTSD) in adult refugees: A review of the current state of psychological therapies. *Journal of Mental Health*, 13(4), 351–362.
- 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(3), 399–417.
- Nickerson, A., Bryant, R. A., Steel, Z., Silove, D., & Brooks, R. (2010). The impact of fear for family on mental health in a resettled Iraqi refugee community. *Journal of Psychiatric Research*, 44, 229–235.
- Norcross, J. C. (2011). *Psychotherapy relationships that work* (2nd ed.). New York, NY: Oxford University Press.
- 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.

- Palic, S., & Elklit, A. (2009). An explorative outcome study of CBT-multidisciplinary treatment with cognitive-behavior therapy versus sertraline alone. *Torture, 19*(3), 248–270.
- Paunovic, N., & Ost, L. (2001). Cognitive-behavior therapy vs exposure therapy in the treatment of PTSD in refugees. *Behaviour Research and Therapy, 39*, 1183–1197.
- Porter, M., & Haslam, N. (2005). Predisplacement and postdisplacement factors associated with mental health of refugees and internally displaced persons: A meta-analysis. *Journal of the American Medical Association (JAMA), 194*(5), 602–612.
- Priebe, S., Gavrilovic, J. J., Matanov, A., Franciskovic, T., Knezevic, G., Ljubotina, D., . . . Schützwohl, M. (2010). Treatment outcomes and costs at specialized centers for the treatment of PTSD after the war in former Yugoslavia. *Psychiatric Services, 61*(6), 598–604.
- Quiroga, J., & Jaranson, J. M. (2005). Politically-motivated torture and its survivors: A desk study review of the literature. *Torture, 16*(2–3), 1–111.
- Reeler, A. P., & Mbape, P. T. (1998). A pilot study of a brief form of psychotherapy for survivors of torture. *Torture, 8*, 120–125.
- Renner, W. (2009). The effectiveness of psychotherapy with refugees and asylum seekers: Preliminary results from an Austrian study. *Journal of Immigrant and Minority Health, 11*, 41–45.
- Rousseau, C., Mekki-berrada, A., & Moreau, S. (2001). Trauma and extended separation from family among Latin American and African refugees in Montreal. *Psychiatry, 64*(1), 40–59.
- Salo, J., Punamäki, R.-L., Qouta, S., & El Sarraj, E. (2008). Individual and group treatment and self and other representations predicting posttraumatic recovery among former political prisoners. *Traumatology, 14*(2), 45–61.
- 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.
- Sjolund, B. J., Kastrup, M., Montgomery, E., & Persson, A. L. (2009). Rehabilitating torture survivors. *Journal of Rehabilitation Medicine, 41*(9), 689–696.
- Smajkic, A., Weine, S., Djuric-Bijedic, Z., Boskailo, E., Lewis, J., & Pavkovic, I. (2001). Sertraline, paroxetine, and venlafaxine in refugee posttraumatic stress disorder with depression symptoms. *Journal of Traumatic Stress, 14*(3), 445–452.
- Snodgrass, L. L., Yamamoto, J., Frederick, C., Ton-That, N., Foy, D. W., Chan, L., . . . Fairbanks, L. (1993). Vietnamese refugees with PTSD symptomatology: Intervention via a coping skills model. *Journal of Traumatic Stress, 6*(4), 569–575.
- 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 Academy, 302*(5), 537–549.
- Steel, Z., Steel, C. R. B., & Silove, D. (2009). Human rights and the trauma model: Genuine partners of uneasy allies? *Journal of Traumatic Stress, 22*(5), 358–365.
- Summerfield, D. (1997). Legacy of war: Beyond “trauma” to the social fabric. *The Lancet, 349*(9065), 1568.
- Tempany, M. (2009). What research tells us about the mental health and psychosocial wellbeing of Sudanese refugees: A literature review. *Transcultural Psychiatry, 46*(2), 300–315.

- Tharp, R. G. (1991). Cultural diversity and treatment of children. *Journal of Consulting and Clinical Psychology*, 59(6), 799–812.
- Thomas, B. H., Ciliska, D., Dobbins, M., & Micucci, S. (2004). A process for systematically reviewing the literature: Providing the research evidence for public health nursing interventions. *Worldviews on Evidence-Based Nursing*, 1(3), 176–184.
- Tol, W. A., Komproe, I. H., Jordans, M. J. D., Thapa, S. B., Sharma, B., & de Jong, J. V. T. M. (2009). Brief multi-disciplinary treatment for torture survivors in Nepal: A naturalistic comparative study. *International Journal of Social Psychiatry*, 55(1), 39–56.
- United Nations High Commissioner for Refugees (UNHCR) (1951). *United Nations Refugee Convention: Article I*. Geneva, Switzerland: Author.
- Van der Kolk, B. A., Pelkowitz, D., Roth, S., Mandel, F. S., McFarlane, A., & Herman, J. L. (1996). Dissociation, somatization and affect dysregulation: The complexity of adaptation to trauma. *The American Journal of Psychiatry*, 153, 83–93.
- Van Velsen, C., Gorst-Unsworth, C., & Turner, S. (1996). Survivors of torture and organised violence: Demography and diagnosis. *Journal of Traumatic Stress*, 9(2), 181–193.
- Victorian Foundation for Survivors of Torture. (1998). *Rebuilding shattered lives*. Melbourne, Australia: Victorian Foundation for Survivors of Torture.
- Weine, S. M., Kulenovic, A. D., Pavkovic, I., & Gibbons, R. (1998). Testimony psychotherapy in Bosnian refugees: A pilot study. *American Journal of Psychiatry*, 155(12), 1720–1726.
- Wessells, M. (2006). *Child soldiers: From violence to protection*. Cambridge, MA: Harvard University Press.
- Westermeyer, J. (1988). A matched pairs study of depression among Hmong refugees with particular reference to predisposing and factors and treatment outcome. *Social Psychiatry and Psychiatric Epidemiology*, 23, 64–71.
- Westermeyer, J., Vang, T. F., & Neider, J. (1984). Symptom change over time among Hmong refugees: Psychiatric patients versus nonpatients. *Psychopathology*, 17, 168–177.
- Wolpert, M., Fuggle, P., Cottrell, D., Fonagy, P., Phillips, J., Pilling, S., . . . Target, M. (2006). *Drawing on the evidence: Advice for child mental health professionals* (2nd ed.). Retrieved from http://www.ucl.ac.uk/clinical-psychology/EBPU/publications/pub-files/drawing_on_the_evidence_booklet_2006.pdf
- World Health Organization (WHO) (2005). *WHO resource book on mental health, human rights and legislation*. Geneva, Switzerland: Author.
- Yeomans, P. D., Forman, E. M., Herbert, J. D., & Yuen, E. (2010). A randomized trial of a reconciliation workshop with and without PTSD psychoeducation in a Burundian sample. *Journal of Traumatic Stress*, 23(3), 305–312.

Colleen A. McFarlane, BSc (Hons.), PhD, is a Research Fellow and Counsellor-Advocate at the Victorian Foundation for Survivors of Torture (VFST). She holds a PhD in trauma and cross-cultural psychology from Monash University, Australia. She is a registered psychologist trained in clinical psychology and has worked as a researcher and practitioner with refugees and asylum seekers for 8 years. Her interests encompass cross-cultural understanding of mental health and well-being, traumatic stress, qualitative research, and evidence-based therapies. Address: The Victorian Foundation for Survivors of Torture, 6 Gardiner Street, Brunswick, VIC 3056, Australia. [Email: mcfarlanec@foundationhouse.org.au]

Ida Kaplan, BSc (Hons), MSc, PhD, is Direct Services Manager at the Victorian Foundation for Survivors of Torture (VFST) and Fellow, School of Behavioural Science, University of Melbourne. At VFST she oversees client services, has developed service models for refugees and asylum seekers and produced professional development resources for education and health sectors. She has a long-standing policy, practice and research interest in the intersection of mental health, social justice, and human rights issues in understanding recovery from trauma.