*Empirical Article*

Clinical Psychological Science
2021, Vol. 9(6) 1164–1184

DOI: 10.1177/2167702621998641
www.psychologicalscience.org/CPS

# Mindfulness-Based Trauma Recovery for Refugees (MBTR-R): Randomized Waitlist-Control Evidence of Efficacy and Safety

**Anna Aizik-Reebs, Kim Yuval, Yuval Hadash, Solomon Gebreyohans Gebremariam, and Amit Bernstein**
Observing Minds Lab, School of Psychological Sciences, University of Haifa

**Abstract**
Refugees and asylum seekers often suffer from trauma- and stress-related mental health problems. We thus developed mindfulness-based trauma recovery for refugees (MBTR-R)—a 9-week, mindfulness-based, trauma-sensitive, and socioculturally adapted group intervention for refugees and asylum seekers. We conducted a randomized waitlist-control study to test its efficacy and safety among a community sample of 158 Eritrean asylum seekers (46.2% female) with severe trauma history and chronic postmigration stress. Relative to the waitlist-control group, MBTR-R participants demonstrated significantly reduced rates and symptom severity of posttraumatic stress disorder, depression, anxiety, and multimorbidity at postintervention and 5-week follow-up. Therapeutic effects were not dependent on key demographics, trauma history severity, or postmigration living difficulties. Finally, there was no evidence of adverse effects or lasting clinically significant deterioration in monitored outcomes. The brief intervention format, group-based delivery, and limited attrition indicate that MBTR-R may be a feasible, acceptable, readily implemented, and scalable mental health intervention for refugees and asylum seekers.

**Keywords**
asylum seekers, anxiety, compassion, depression, forcibly displaced people, meditation, mindfulness, PTSD, postmigration stress, randomized controlled study, refugees, stress, trauma

Received 12/6/20; Revision accepted 2/7/21

Today, an unprecedented 79.5 million people, among them refugees and asylum seekers, are forcibly displaced from their homes by conflict, persecution, and other forms of human brutality (United Nations High Commissioner for Refugees [UNHCR], 2019). Following traumatic events and chronic stressors after displacement, refugees and asylum seekers suffer at high rates from various trauma- and stress-related mental health problems, including posttraumatic stress, depression, and anxiety (Bogic et al., 2015; Burri & Maercker, 2014; Priebe et al., 2016; Silove et al., 2017). The personal suffering of the forcibly displaced, fracturing of families and communities, and intergenerational transmission of trauma will challenge resettlement communities, aid organizations, policymakers, and practitioners around the world for many years to come (Guruge & Butt, 2015; Patel et al., 2018; Schick et al., 2016; Silove et al., 2017).

This crisis has led to global calls for the development and delivery of mental health interventions that are effective and safe and generalize to diverse individuals and populations (e.g., gender, education) yet are also brief, cost-effective, easily disseminated, transportable, readily implemented, and scalable (Haagen et al., 2017; Schick et al., 2018; Siriwardhana et al., 2014; Tol, Augustinavicius, Carswell, Brown, et al., 2018; World Health Organization [WHO], 2013). Developing and implementing intervention programs that meet these demanding criteria is a—if not the—seminal challenge facing the field of global mental health in the coming

**Corresponding Author:**
Amit Bernstein, Observing Minds Lab, Department of Psychology, University of Haifa
E-mail: abernstein@psy.haifa.ac.il

decade (Patel et al., 2018; Singla et al., 2017; Slobodin & de Jong, 2015; Tol et al., 2014).

Field-wide efforts are under way. First, intensive, typically individual, trauma-focused exposure-based therapies, such as narrative exposure therapy (NET), have demonstrated moderate efficacy and effectiveness among diverse refugee populations (Elbert et al., 2015; Nickerson, Liddell, et al., 2017; Robjant & Fazel, 2010; Shapiro, 2001; Slobodin & de Jong, 2015). Second, emerging mental health interventions for refugees and asylum seekers entail low-intensity cognitive behavior therapy, focused on coping with here-and-now postmigration stressors. For example, Problem Management Plus (PM+) and e-health Self Help Plus (SH+) have demonstrated promising feasibility, fidelity, and adherence (Purgato et al., 2019; Tol, Augustinavicius, Carswell, Leku, et al., 2018). Preliminary evidence of SH+ effectiveness has been recently reported, although documented therapeutic effect sizes are modest (Tol et al., 2020). Third, other commonly implemented mental health intervention approaches include individual psychotherapy, such as cognitive behavioral therapy and the common elements treatment approach, and have demonstrated evidence of modest efficacy (Bolton et al., 2014; Buhmann et al., 2016; Carlsson et al., 2018). Likewise, psychosocial interventions typically targeting community-level resilience and support are commonly implemented, although their therapeutic efficacy has been tested in only a small number of studies (Meyer, 2013; Silove et al., 2017; Turrini et al., 2019; Weinstein et al., 2016).

These early therapeutic models represent seminal building blocks of a public refugee mental health intervention portfolio (Singla et al., 2017; Tol et al., 2014). Interventions tailored to the complex, uncertain, and stressful contexts and postmigration realities of forcibly displaced persons, particularly asylum seekers, are much needed (Nickerson, Liddell, et al., 2017; Patel et al., 2018; Tol et al., 2014). The large majority (~70%) of refugees and asylum seekers in the current crisis reside in urban postdisplacement settings, often characterized by insecure visa or unrecognized asylum status, economic instability, and postmigration stressors (Cahill et al., 2006; Kazdin & Blase, 2011; Murray, Tol, et al., 2014; UNHCR, 2019). These populations may be less likely to access or benefit from intensive, individual, or trauma-focused exposure therapies (Hinton et al., 2011) yet may be particularly burdened by a range of mental health problems linked to chronic ongoing postmigration stressors (Nickerson, Liddell, et al., 2017; Silove et al., 2017; Tol et al., 2014). It may therefore be useful to draw on therapeutic approaches with a strong clinical evidence base relevant to the trauma- and stress-related mental health needs of refugees that are also pragmatically well-suited to the implementation challenges facing refugee mental health intervention efforts (Patel et al., 2018). Work over the past number of years led us to speculate that mindfulness-based interventions (MBIs) may represent one such promising approach (Bernstein et al., 2019; Reebs et al., 2017; Singla et al., 2017; Wielgosz et al., 2019; Yuval & Bernstein, 2017).

MBIs are a family of mental training interventions, of which the most common are mindfulness-based stress reduction (MBSR; Kabat-Zinn, 1990, 2017) and mindfulness-based cognitive therapy (MBCT; Segal et al., 2002). MBIs entail practice in formal mindfulness meditation as well as informal practice of mindfulness in daily living to cultivate present-moment attention and awareness characterized by a number of attitudinal qualities (e.g., acceptance, nonjudgment, self-compassion; Crane et al., 2017). MBIs have varied applications and implementation in various sectors, contexts, and populations (Bernstein et al., 2019; Crane et al., 2017; Dimidjian & Segal, 2015).

Central features of MBIs may be well suited to some of the implementation challenges facing refugee mental health intervention efforts. First, there is a growing body of evidence documenting robust stress-buffering effects of MBIs (Boyd et al., 2018; Galante et al., 2018; Jha et al., 2017; Pascoe et al., 2017), including increased subjective well-being; reduced severity, persistence, and relapse of common mental health problems; enhanced coping (Bernstein et al., 2011; Fjorback et al., 2011; Keng et al., 2011); and protective effects on physiological markers of chronic stress and trauma including hyperarousal, numbing, and psychosomatic symptoms (Gallegos et al., 2015; Smith et al., 2011). Furthermore, emerging evidence has linked MBIs to trauma recovery in Western, educated, industrialized, rich, and democratic (WEIRD) populations and contexts (Goldsmith et al., 2014; Hopwood & Schutte, 2017; Müller-Engelmann et al., 2019; Nidich et al., 2018; Polusny et al., 2015; Possemato et al., 2015; Stephenson et al., 2017).

Second, MBIs target mechanisms and risk processes implicated in trauma recovery or the buffering of chronic stress. These include metacognitive processes such as decentering (Bernstein et al., 2015; Shoham et al., 2017; Teasdale et al., 2002); executive functions such as inhibitory control in working memory or attentional control (Jha et al., 2017; Teper et al., 2013); emotion-regulation skills, including interoceptive awareness, acceptance, and reduced reactivity (Gu et al., 2015; Held & Owens, 2015; Lindsay & Creswell, 2017); and adaptive/maladaptive self-referentiality, including reduced perseverative negative thinking (Gu et al., 2015; Van Der Velden et al., 2015) and enhanced self-compassion (Garland et al., 2015; Germer & Neff, 2015; Winders et al., 2020). Note that a number of these targeted processes are thought to transcend culture (e.g., attention, executive functions, awareness; Kabat-Zinn, 2019; Thupten, 2019).

Third, the training techniques, format, modes of MBI delivery, and potential cost-effective reach and scalability of MBIs are well suited to address common barriers to implementation of mental health interventions for asylum seekers and refugee populations (Hinton et al., 2005; Kazdin & Blase, 2011; Murray, Dorsey, et al., 2014; Nickerson et al., 2011; WHO, 2016). MBIs are relatively brief and can be delivered by trained paraprofessionals under supervision, regardless of geographic distance/isolation (Crane et al., 2017; Crane & Kuyken, 2019; Didonna, 2009); may be delivered through a number of formats, including groups, self-help audio recordings, text, and web- or mobile-supported platforms (Krusche et al., 2013; Mrazek et al., 2019; Segal et al., 2019); and relative to more linguistically mediated psychotherapeutic interventions, require relatively less verbal interactions between trainers and participants. MBIs may be readily scaled up even in underresourced health systems because they are brief, group based, low cost, and beneficial to participants with a range of stress-related distress and personal goals (Schick et al., 2018; Singla et al., 2017; Tol, Augustinavicius, Carswell, Brown, et al., 2018). Likewise, MBIs, and specifically meditation practices, may be adapted to be trauma sensitive for vulnerable participants with a traumatic stress history or posttraumatic stress symptoms (Kim et al., 2013; Treleaven, 2018). Finally, contemporary secularized MBIs have been successfully adapted to a variety of populations and contexts in ways that are socioculturally sensitive to diverse backgrounds, belief systems, and languages (Crane et al., 2017; Hinton et al., 2013).

To date, the potential for MBIs to promote well-being, trauma recovery, and coping with postmigration stressors among refugees and asylum seekers has been preliminary explored via qualitative studies and nonrandomized, uncontrolled intervention studies of small samples (Banks et al., 2015; Hinton et al., 2013; Sobczak & West, 2013; Van der Gucht et al., 2015). Yet to the best of our knowledge, (a) no MBI has been specifically designed to care for stress- and trauma-related mental health needs of refugees and asylum seekers, and (b) we do not yet have any experimental evidence of the efficacy or safety of an MBI among refugees or asylum seekers. Given the global public health urgency, significance, and expected longevity of the current humanitarian and mental health crisis, as well as challenging barriers to effective mental health intervention implementation, such research is timely and much needed.

## Present Study and Aims

In the present study, we report efficacy and safety outcomes of a randomized waitlist-control study of a novel specialized MBI—mindfulness-based trauma recovery for refugees (MBTR-R)—among 158 (55.7% women) Eritrean asylum seekers residing in an urban postmigration setting in the Middle East (Israel). MBTR-R is a nine-session mindfulness-based group intervention that is trauma sensitive and socioculturally adapted for diverse populations of refugees and asylum seekers.

### *Efficacy*

First, we tested whether, relative to a waitlist-control condition, MBTR-R led to significantly reduced rates of stress- and trauma-related mental health problems, including posttraumatic stress, depression, anxiety, multimorbidity, and well-being, at 1-week postintervention and 5-week follow-up. Given the residential insecurity of asylum seekers in this population (Birger et al., 2018), we limited follow-up (at 5 weeks) to ensure prospective retention (Western et al., 2016). Second, we tested whether expected therapeutic effects of MBTR-R were moderated by key demographics of the studied population, including, gender, age, and education level, or by preexisting vulnerability factors at preintervention such as trauma exposure history or current postmigration living difficulties. The potential impact of MBTR-R depends on the degree to which expected therapeutic benefits of MBTR-R generalize to diverse forcibly displaced people from various backgrounds and are not circumscribed to narrow, specific subgroups (Patel et al., 2018; Tol et al., 2014).

### *Safety*

Third, we tested whether, relative to the waitlist-control condition, MBTR-R was safe and thus not associated with participant-level clinically significant deterioration in any of the monitored primary mental health outcomes at postintervention or at follow-up (Jacobson & Truax, 1991). In the event of adverse responding, we planned to test candidate contraindications for MBTR-R, including key demographic factors or preexisting vulnerability factors at preintervention, that may predict participant-level deterioration or adverse responding to the intervention (Baer et al., 2019; Dobkin et al., 2012; Wong et al., 2018).

## Method

### *Study design and participants*

This study was a single-site randomized control intervention study examining MBTR-R compared with a waitlist-control condition in a community sample of Eritrean asylum seekers residing in the Middle East (Israel). The study received human subjects' research

ethics approval by a University of Haifa Institutional Review Board committee. Participants were recruited via public flyers, community recruitment, and local nongovernmental organizations and municipal organizations working with refugees. Over the course of 1 year, male and female Eritrean asylum seekers were recruited in three cohorts and randomly assigned to either the MBTR-R or waitlist-control condition. Exclusion criteria were (a) active suicidality, (b) current psychotic symptoms, and (c) current mental health treatment (psychiatrist, psychotherapy, psychosocial support group). Random assignment was conducted via random number generation in blocks of two conditions with a ratio of three MBTR-R participants to two waitlist-control participants. This was done using power analysis (a) to ensure sufficient number of participants to detect medium-size between-groups effects and (b) to ensure sufficient power to detect moderate effects in planned within-groups analyses among the MBTR-R group (Borm et al., 2007; Moher et al., 2009).

The selected population of Eritrean asylum seekers are representative of a large and fast-growing proportion of forcibly displaced people worldwide (UNHCR, 2019). First, members of this community were exposed to a large number of severely traumatizing events, including serious violations of human rights, arbitrary detention, torture, sexual- and gender-based violence, and religious and political persecution (Connell, 2012; Van Reisen & Mawere, 2017). Second, members of this community have not received refugee or formal residential status, so their future remains unpredictable and uncertain because of threat of detention or deportation (Orgal et al., 2019; Rozen, 2015). Third, members of this community are struggling with chronic and often severe postmigratory life stressors (Giacco et al., 2018; Li et al., 2016; Miller & Rasmussen, 2017; Yuval et al., 2021). Finally, members of this community are suffering from high rates of stress- and trauma-related mental health problems (Nakash et al., 2017; Yuval & Bernstein, 2017; Yuval et al., 2017). For more details on participants, see the Supplemental Material available online.

## *Procedure*

Following assessment for eligibility to participate in the study through a phone screening, consent, and random assignment to condition (see Fig. 1), participants completed the preintervention assessment including self-report questionnaires and behavioral/cognitive experimental tasks. All self-report measures of vulnerability and mental health are included in the present article. MBTR-R participants also completed brief weekly assessments of targeted change processes before and after each intervention session. Following the 9-week intervention or identical waitlist-control period, participants completed assessments at 1-week postintervention. MBTR-R participants also completed a follow-up assessment 5 weeks after the postintervention assessment. Critical to ethical study of this vulnerable population, waitlist-control participants completed only the 1-week postintervention assessment—to ensure that we did not unnecessarily withhold treatment for asylum seekers in the waitlist-control condition (Gold et al., 2017; for additional information, see the Supplemental Material).

***MBTR-R intervention condition.*** For a session-by-session overview of MBTR-R, see Table S1 in the Supplemental Material. MBTR-R is a mindfulness-based group (10–20 participants) intervention consisting of nine 2.5-hr weekly sessions. MBTR-R format and structure parallel common MBIs (Crane et al., 2017), including MBSR and MBCT (Kabat-Zinn, 2017; Segal et al., 2013). MBTR-R includes systematic training in formal and informal mindfulness practices (e.g., body scan, sitting meditation, mindful movement, 3-min breathing space), although with key trauma-sensitive adaptations (Treleaven, 2018); experiential inquiry-based discussions of all in-session practices (Crane et al., 2015); and home practice via web-based audio recordings and handouts (Crane et al., 2017). Critically, trauma-sensitive adaptations to mindfulness meditation practices were included to reduce risk of adverse responding and to optimize salutary benefits from MBTR-R (Treleaven, 2018). First, a "safe place" practice was practiced in which participants trained bringing attention to objects of awareness that feel neutral, safe, or calm when feeling overwhelmed or numb during mindfulness meditation (Treleaven, 2018). Second, psychoeducation about posttraumatic stress, stress reactivity, and depression is integrated in the intervention to normalize and destigmatize trauma- and stress-related mental health problems (Dutton et al., 2013; Kelly & Garland, 2016). Third, loving-kindness and self-compassion practices are taught as ways of coping with fear, self-judgment, guilt, shame, and hostility, common to trauma- and stress-related mental health problems (Van den Brink & Koster, 2015).

To provide optimal conditions for participants to learn mindfulness and key intervention principles and to benefit from the group format, we adapted delivery of MBTR-R socioculturally. First, a cultural mediator from the refugee community that was personally familiar with mindfulness practice worked alongside the mindfulness instructor (for instructor and cultural mediator qualifications and training, see the Supplemental Material). Cultural mediators conducted real-time linguistic translation (Tigrinya) of guided practices and group discussions (Bernal & Sáez-Santiago, 2006; Fondacaro & Harder, 2014; Miller et al., 2005). Second, socioculturally specific metaphors and idioms were integrated in

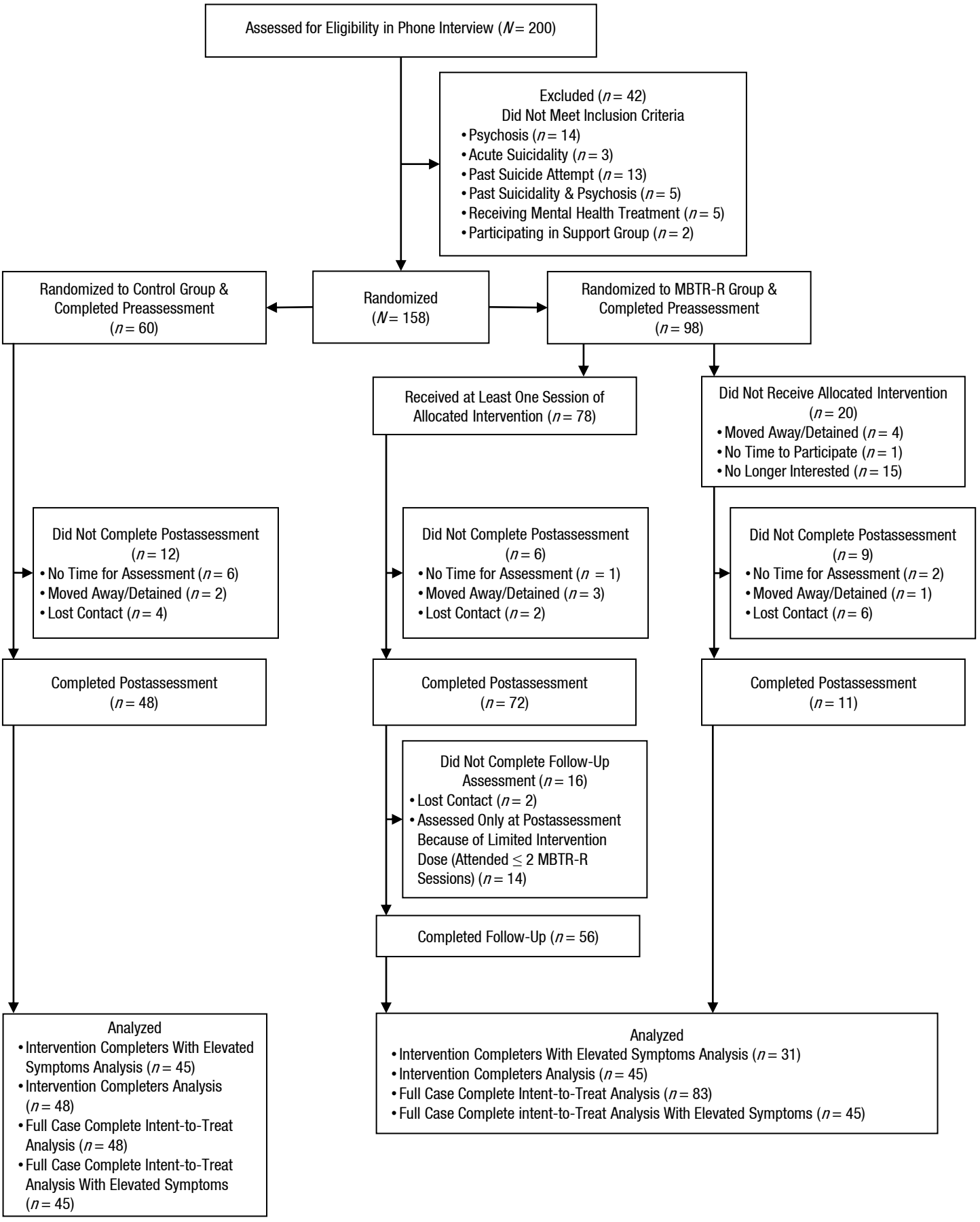


**Fig. 1.** Consolidated Standards of Reporting Trials (CONSORT) flow diagram.

the intervention protocol to communicate key ideas (Bernal & Sáez-Santiago, 2006; Hinton et al., 2011; Tol et al., 2014). Third, MBTR-R groups were conducted for men and women separately and led, respectively, by male and female instructors and cultural mediators. Fourth, MBTR-R was delivered in a geographically accessible, familiar, and safe space in the local asylum-seeker community (Fondacaro & Harder, 2014). Fifth, group meetings included a shared midsession meal consisting of traditional Eritrean food, during which mindfulness was also practiced to encourage adoption of mindfulness into daily living (Dutton et al., 2013). Finally, to reduce obstacles for session attendance, female participants were offered free child care (Dutton et al., 2013).

***Waitlist-control condition.*** Following the 9-week waitlist period and 1-week postintervention assessment, participants randomly assigned to the waitlist-control condition were offered an equivalent group intervention (i.e., 22.5 total hr, group instructor and cultural mediator, psychoeducation and low-intensity cognitive behavior therapy skill training, relaxation techniques). We chose to offer participants this intervention after the 9-week waitlist period primarily because of ethical considerations. It was important to ensure that all participants seeking assistance through study participation, including participants randomly assigned to the waitlist-control condition, would be able to receive mental health care (Gold et al., 2017). Such cautious ethical considerations are of the utmost importance in working with such vulnerable populations amid a crisis of forced displacement (Hugman et al., 2011). Critically, because this was the first study of MBTR-R, we did not yet know safety or efficacy outcomes of MBTR-R and were committed to provide participants seeking assistance randomly assigned to the waitlist-control condition mental health care that would not involve exposing them to any unnecessary risk (Gold et al., 2017). When participants were randomly assigned, MBTR-R and the intervention offered after the waitlist-control period were described nearly identically—in terms of purpose, total number of hours, compensation, and so on—to ensure similar expectancy effects and motivation between conditions.

## *Measures*

All measures were translated and back-translated and psychometrically evaluated and validated for this study or in earlier research—either in our or other research groups' studies of these specific African refugee populations (Badri et al., 2012; Reebs et al., 2017; Tanay & Bernstein, 2013; Yuval & Bernstein, 2017; Yuval et al., 2017, 2021). All translated measures were pilot tested and revised in an iterative process, which included cognitive interviewing with translators and Eritrean asylum seekers to ensure linguistic as well as sociocultural meaning (Miller & Fernando, 2008; Sartorius & Kuyken, 1994).

The Harvard Trauma Questionnaire (HTQ; Mollica et al., 1992) was used to measure traumatic stress exposure and posttraumatic stress disorder (PTSD) symptoms. The Brief Patient Health Questionnaire (PHQ-9; Spitzer et al., 1999) was used to measure symptom levels of depression. The Beck Anxiety Inventory (BAI; Beck et al., 1988; Norman et al., 2006) was used to measure levels of anxiety symptoms. Using the categorical (diagnostic) symptom status for PTSD, depression, and anxiety, we computed a comorbidity index (0 = no elevated psychiatric symptoms, 1 = unimorbid or diagnostic symptom levels in one condition, 2 = comorbid or diagnostic symptom levels in two conditions, 3 = multimorbid or diagnostic symptom levels in all three conditions). The Brief Inventory of Thriving (BIT; Su et al., 2014) was used to measure subjective well-being. Finally, the Post-Migration Living Difficulties Scale (Silove et al., 1997) was used to measure current post-migration stressors. For more details on measures, see the Supplemental Material.

## *Statistical analysis*

***Randomization.*** To test randomization, we applied *t* tests and logistic regression to compare the MBTR-R group with the waitlist-control group for all demographic variables as well as mental health measures at preintervention.

***Aim 1. MBTR-R efficacy.*** We tested MBTR-R efficacy relative to the waitlist-control condition for 1-week postintervention and 5-week follow-up outcomes using analyses of covariance (ANCOVAs) for continuous symptom severity scores and logistic regression for categorical (diagnostic) symptom status. We controlled for preintervention levels of each outcome in each respective ANCOVA and logistic regression. To test the therapeutic efficacy of MBTR-R among participants who received an adequate dose of the intervention, and who may thus be expected to benefit from the intervention, we conducted primary analyses among intervention completers—participants who attended more than half (> 4) of the MBTR-R sessions (Kuyken et al., 2016; Teasdale et al., 2000). This definition of completion is aligned with MBCT studies (Kuyken et al., 2016; Spinhoven et al., 2017) as well as reasonable expectations given the real-world constraints on regular attendance of refugees and asylum seekers because of postmigration environmental instability and stressors (Asgary & Segar, 2011; Spiegel et al., 2010). Analyses were thus conducted among intervention completers with elevated symptoms at baseline preintervention as well as among all intervention completers regardless of

levels of baseline symptoms. In addition, we also ran parallel analyses among the more inclusive full case complete intent-to-treat (ITT) sample (see Fig. 1) common in tests of efficacy (cf. effectiveness; J. D. Goldberg, 2020) and mental health intervention trials among refugee populations (Tol et al., 2020). Accordingly, the ITT analysis included all participants who could be prospectively tracked, including participants randomly assigned to MBTR-R but who did not attend any sessions.

***Aim 2. Generalizability of MBTR-R efficacy: moderated therapeutic effects of MBTR-R.*** To test whether expected therapeutic effects of MBTR-R (Aim 1) were dependent on key demographics of the studied population (gender, age, level of education), trauma stress history severity, or current postmigration living difficulties, we conducted a test of moderation per outcome (Aim 1) using the PROCESS macro (Hayes, 2017) in IBM SPSS (Version 25). Candidate moderating factors were tested to rigorously examine whether MBTR-R is therapeutically beneficial to refugees and asylum seekers across key demographic factors and levels of preexisting vulnerability. These demographics and preexisting indicators of vulnerability are well-documented barriers to therapeutic gains and could potentially require specialized or more personalized interventions (Patel, 2016; Turrini et al., 2019).

***Aim 3. Safety and adverse effects of MBTR-R.*** To identify individual participants who experienced clinically significant deterioration over the course of the intervention, we calculated a reliable-change index (RCI; Jacobson & Truax, 1991). The RCI reflects change from baseline preintervention levels to 1-week postintervention and 5-week follow-up levels for each mental health outcome, per participant, by group. RCI is an established and frequently used method to determine clinically significant, participant-level change in medical and mental health research (Ehlers et al., 2013; Ekeroth & Birgegård, 2014; Stein et al., 2012; van den Berg et al., 2016; Zahra & Hedge, 2010). To maximize the sensitivity of this analysis and likelihood of identifying individual participants who experienced deterioration, we calculated RCI among the full case complete ITT sample—all participants with pre- and postintervention data regardless of intervention attendance or attrition.

## Results

### *Sample and context: demographics, trauma history, postmigration stress, and mental health symptoms*

For details on screening and randomization, see Fig. 1. Two hundred adult Eritrean asylum seekers in Israel were screened for participation, 158 were randomly assigned to either the MBTR-R intervention or waitlist-control condition and completed the preintervention assessment. We randomly assigned 98 participants (47.9% men) to the MBTR-R intervention and 60 participants (63.3% men) to the waitlist-control condition.

Participants were 20 to 48 years old ($M$ = 31.8 years, $SD$ = 5.21), 53.8% were men, and education levels varied between 1 and 6 years (23.5% men, 32.9% women), 7 and 12 years (65.9% men, 57.5% women), 13 and 16 years (9.4% men, 8.2% women) and more than 16 years (1.2% men, 1.4% women). Participants reported severe trauma history, including experiencing torture, rape, or sexual abuse and the murder of a family member or friend (number of traumatic event types: $M$ = 6.16, $SD$ = 4.28). Likewise, participants reported high rates of postmigration living difficulties, including fear of deportation to their home country, not having enough money for food or rent, and worries about being homeless (number of reported postmigration living difficulties: $M$ = 5.44, $SD$ = 2.58). See Table 1 for rates of postmigration living difficulties and trauma exposure history at preintervention.

See Table 2 for continuous mental health outcomes by group and Table 3 for point-prevalence rates of mental health outcomes by group. Finally, 66.7% of participants demonstrated diagnostically elevated symptom levels of either PTSD, depression, or anxiety disorder at baseline. Among all participants, 16% demonstrated unimorbidity, 19.2% comorbidity, and 31.4% multimorbid elevation of PTSD, depression, and anxiety symptoms.

***Intervention attendance and study attrition.*** See Figure 1 consort diagram for details regarding study attrition. First, from all participants (full ITT), 83 of 98 (83% men, 86.3% women) participants randomly assigned to MBTR-R and 48 of 60 (84.2% men, 72.7% women) participants randomly assigned to the waitlist-control condition were prospectively retained in the study and completed preintervention as well as postintervention assessment. Thus, the full case complete ITT sample entailed 83 MBTR-R and 48 waitlist-control participants ($N$ = 131, 82.9% prospective retention). Note that there were no significant differences between the full case complete ITT sample (82.9%) and participants who did not complete postintervention assessment and thus were not part of the full case complete ITT analyses (17.1%). Specifically, participants who could be included in the ITT sample analyses did not differ with regard to gender, age, level of education, trauma history, postmigration living difficulties, PTSD, depression, anxiety, or well-being compared with participants who could not be included in the ITT sample analyses. Accordingly, findings from

**Table 1.** Rates of Postmigration Living Difficulties and Trauma Exposure History at Preintervention Among Whole Sample ($N = 158$)

| | Control group | | MBTR-R group | | |
|---|---|---|---|---|---|
| Variable | Men ($n = 37$) | Women ($n = 21$) | Men ($n = 46$) | Women ($n = 49$) | Total |
| Postmigration living difficulties[a] | | | | | |
| Communication difficulties | 15 (40.5%) | 8 (38.1%) | 19 (41.3%) | 23 (46.9%) | 65 (42.5%) |
| Separation from your family | 31 (83.8%) | 17 (85%) | 37 (82.2%) | 41 (83.7%) | 126 (83.4%) |
| Not being able to find work or bad working conditions | 22 (61.1%) | 14 (70%) | 20 (45.5%) | 29 (61.7%) | 85 (57.8%) |
| Conflict with immigration officials | 24 (64.9%) | 7 (35%) | 18 (40.9%) | 18 (38.3%) | 67 (45.3%) |
| Being fearful of being sent home | 30 (78.9%) | 19 (95%) | 41 (89.1%) | 42 (87.5%) | 132 (86.8%) |
| Not enough money to buy life essentials | 21 (56.8%) | 14 (70%) | 19 (41.3%) | 34 (72.3%) | 88 (58.7%) |
| Poor access to educational services | 32 (86.5%) | 16 (80%) | 37 (82.2%) | 37 (77.1%) | 122 (81.3%) |
| Loneliness, boredom, isolation | 22 (59.5%) | 16 (80%) | 26 (59.1%) | 26 (55.3%) | 90 (61.8%) |
| Worries about not having a regular place to sleep | 19 (51.4%) | 13 (65%) | 20 (44.4%) | 27 (58.7%) | 79 (53.4%) |
| Trauma exposure history | | | | | |
| Lack of food or water | 18 (47.4%) | 13 (61.9%) | 29 (63%) | 26 (52%) | 86 (55.5%) |
| Ill health without access to medical care | 20 (52.6%) | 9 (42.9%) | 26 (56.5%) | 23 (45.1%) | 78 (50%) |
| Imprisonment | 26 (68.4%) | 9 (42.9%) | 31 (67.4%) | 14 (28%) | 80 (51.6%) |
| Serious injury | 23 (60.5%) | 5 (23.8%) | 21 (45.7%) | 15 (30%) | 64 (41.3%) |
| Combat situation | 16 (43.2%) | 10 (47.6%) | 19 (41.3%) | 22 (43.1%) | 67 (43.2%) |
| Rape or sexual abuse | 6 (16.2%) | 4 (19%) | 2 (4.3%) | 10 (19.6%) | 22 (14.2%) |
| Being close to death | 21 (55.3%) | 9 (42.9%) | 20 (43.5%) | 19 (37.3%) | 69 (44.2%) |
| Unnatural death of family/friend (including suicide) | 13 (34.2%) | 8 (36.4%) | 15 (32.6%) | 17 (33.3%) | 53 (33.8%) |
| Lost or kidnapped | 18 (48.6%) | 5 (25%) | 20 (42.6%) | 12 (23.5%) | 55 (35.5%) |
| Torture | 22 (61.1%) | 11 (52.4%) | 24 (54.5%) | 22 (44%) | 79 (52.3%) |

Note: MBTR-R = Mindfulness-Based Trauma Recovery for Refugees.
[a]Postmigration living difficulties posed moderate to very serious problem for participants.

the full case complete ITT analyses are likely to be robust and unbiased.

Second, among all participants randomly assigned to MBTR-R, 79.6% attended at least one MBTR-R session, and among these participants who initiated MBTR-R, 66.6% (63.4% men, 70.2% women) attended five or more sessions (sessions attended: $M = 5.83$, $SD = 2.84$). Participants classified as intervention completers attended a mean of 7.63 sessions ($SD = 1.21$), and participants classified as noncompleters attended a mean of only 2.23 sessions ($SD = 1.31$). Participants who did and who did not complete the intervention did not differ in any systematic way—not with respect to gender, age, level of education, trauma history, postmigration living difficulties, PTSD, depression, anxiety, or well-being at preintervention. None of these factors predicted number of intervention sessions attended or likelihood of intervention completion (see Table S2 in the Supplemental Material).

***Test of randomization at preintervention.*** Consistent with successful randomization, there were no differences between participants randomly assigned to MBTR-R or the waitlist-control condition with respect to trauma exposure history, postmigration living difficulties, anxiety, or well-being. However, there were significant, albeit small, differences in levels of PTSD severity, $t(156) = 2.84$, $p = .005$, and point prevalence of PTSD, $\chi^2(1) = 2.72$, $p < .01$, as well as in levels of depression severity, $t(155) = -2.65$, $p = .009$, and point prevalence of depression, $\chi^2(1) = 7.55$, $p = .006$, between conditions wherein symptoms were slightly higher in the waitlist-control condition than in MBTR-R.

## *Aim 1. MBTR-R efficacy*

***Continuous symptom severity outcomes.*** See Table 2. Relative to the waitlist-control group, participants randomly assigned to MBTR-R demonstrated significantly lower levels of (a) total PTSD, reexperiencing, hyperarousal symptoms, and posttraumatic stress measured via cultural idioms; (b) depression symptoms; (c) anxiety symptoms; and (d) comorbidity and multimorbidity at 1-week postintervention and 5-week follow-up. In addition, MBTR-R participants demonstrated marginally significant higher levels of (e) subjective well-being at postintervention but

**Table 2.** Continuous Mental Health Outcomes by Group and ANCOVAs Among Treatment Completers With Elevated Levels of Psychopathology ($n$ = 76)

| | Waitlist-control group | | | | MBTR-R group | | | | | | ANCOVA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Preintervention | | Postintervention | | Preintervention | | Postintervention | | Follow-up | | Postintervention | | | | Follow-up | | | |
| Outcome | *M* (*SD*) | *n* | *M* (*SD*) | *n* | *M* (*SD*) | *n* | *M* (*SD*) | *n* | *M* (*SD*) | *n* | *df* | *F* | $\eta^2$ | *p* | *df* | *F* | $\eta^2$ | *p* |
| Total PTSD symptoms (HTQ) | 2.85 (0.45) | 41 | 2.63 (0.48) | 33 | 2.71 (0.45) | 29 | 2.10 (0.59) | 29 | 2.09 (0.60) | 28 | 1 | 12.44 | .17 | .001 | 1 | 10.44 | .16 | .002 |
| PTSD reexperiencing symptoms (HTQ) | 2.96 (0.58) | 41 | 2.67 (0.61) | 33 | 2.69 (0.70) | 29 | 2.05 (0.68) | 29 | 1.95 (0.65) | 28 | 1 | 9.76 | .14 | .003 | 1 | 12.34 | .18 | .000 |
| PTSD hyperarousal symptoms (HTQ) | 3.05 (0.55) | 41 | 2.95 (0.66) | 32 | 2.98 (0.56) | 29 | 2.14 (0.72) | 29 | 2.17 (0.79) | 28 | 1 | 23.93 | .29 | .000 | 1 | 19.23 | .26 | .001 |
| PTSD avoidance symptoms (HTQ) | 2.66 (0.56) | 41 | 2.41 (0.51) | 32 | 2.53 (0.53) | 29 | 2.10 (0.62) | 29 | 2.11 (0.55) | 28 | 1 | 3.26 | .05 | .076 | 1 | 2.64 | .05 | .110 |
| Cultural idioms of PTSD symptoms (HTQ) | 3.08 (0.53) | 41 | 2.88 (0.69) | 33 | 2.77 (0.66) | 29 | 2.10 (0.73) | 29 | 2.11 (0.80) | 28 | 1 | 10.85 | .16 | .002 | 1 | 7.91 | .12 | .007 |
| Depression symptoms (PHQ-9) | 16.03 (4.46) | 29 | 15.27 (5.16) | 26 | 15.12 (4.08) | 17 | 11.41 (5.76) | 17 | 11.35 (7.30) | 17 | 1 | 6.52 | .14 | .015 | 1 | 4.74 | .11 | .035 |
| Anxiety symptoms (BAI) | 31.63 (13.18) | 19 | 31.62 (14.33) | 16 | 32.68 (9.25) | 19 | 23.53 (14.15) | 19 | 24.28 (14.83) | 18 | 1 | 12.65 | .20 | .001 | 1 | 4.56 | .10 | .039 |
| Comorbidity index | 2.33 (0.80) | 45 | 2.30 (1.00) | 37 | 2.29 (0.82) | 31 | 1.50 (1.25) | 30 | 1.74 (1.20) | 27 | 1 | 8.43 | .12 | .005 | 1 | 4.11 | .06 | .047 |
| Total well-being (BIT) | 2.42 (0.98) | 45 | 2.32 (0.88) | 37 | 2.68 (1.10) | 30 | 2.97 (1.32) | 31 | 2.76 (1.25) | 29 | 1 | 3.62 | .06 | .062 | 1 | .807 | .01 | .373 |

Note: ANCOVA = analysis of covariance; MBTR-R = Mindfulness-Based Trauma Recovery for Refugees; PTSD = posttraumatic stress disorder; HTQ = Harvard Trauma Questionnaire (Mollica et al., 1992); PHQ-9 = Patient Health Questionnaire (Spitzer et al., 1999); BAI = Beck's Anxiety Inventory (Beck et al., 1988); BIT = Brief Inventory of Thriving (Su et al., 2014).

**Table 3.** Point-Prevalence Rates of Mental Health Outcomes at Preintervention by Group and Gender and Logistic Regressions

| | | | | | | Difference in diagnostic status | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Waitlist-control group | | MBTR-R group | | | Postintervention | | | | | Follow-up | | | | |
| Diagnostic symptom status | Men ($n$ = 38) | Women ($n$ = 22) | Men ($n$ = 47) | Women ($n$ = 49) | Total | $\chi^2$ | $b$ ($SE$) | $p$ | $OR$ | 95% CI | $\chi^2$ | $b$ ($SE$) | $p$ | $OR$ | 95% CI |
| PTSD (HTQ) | 27 (71.1%) | 14 (63.6%) | 27 (57.4%) | 27 (52.9%) | 95 (60.1%) | 14.43 | 2.37 (0.71) | .001 | 10.71 | [2.66, 43.12] | 7.47 | 1.83 (0.73) | .012 | 6.25 | [1.50, 26.01] |
| Depression (PHQ-9) | 19 (50%) | 10 (45.5%) | 14 (29.8%) | 12 (24%) | 55 (35%) | 2.12 | 1.16 (0.81) | .153 | 3.19 | [0.65, 15.70] | 5.01 | 1.68 (0.79) | .033 | 5.37 | [1.15, 25.11] |
| Anxiety (BAI) | 19 (50%) | 16 (72.7%) | 23 (48.9%) | 24 (49%) | 82 (52.6%) | 4.54 | 1.50 (0.75) | .044 | 4.50 | [1.04, 17.00] | 1.39 | 0.92 (0.79) | .247 | 2.50 | [0.53, 11.79] |

Note: HTQ = Harvard Trauma Questionnaire (Mollica et al., 1992); PHQ-9 = Patient Health Questionnaire (Spitzer et al., 1999); BAI = Beck's Anxiety Inventory (Beck et al., 1988); BIT = Brief Inventory of Thriving (Su et al., 2014); MBTR-R = Mindfulness-Based Trauma Recovery for Refugees; PTSD = posttraumatic stress disorder; $OR$ = odds ratio; CI = confidence interval. Cutoff for PTSD diagnostic symptom status: HTQ ≥ 2; cutoff for depression diagnostic symptom status: PHQ-9 ≥ 10; cutoff for anxiety diagnostic symptom status: BAI ≥ 16.

not at follow-up. Effect sizes were moderate to large in magnitude ($\eta^2$ range = .05–.29). Inconsistent with prediction, MBTR-R was not associated with lower levels of PTSD avoidance symptoms at postintervention or follow-up. When including all participants randomly assigned to MBTR-R in the full case complete ITT analyses, observed therapeutic effects of MBTR-R were identical, although of smaller magnitude, except for posttraumatic stress measured via cultural idioms, which was null in the ITT analysis (see Table S3 in the Supplemental Materia). Second, among all treatment completers, including participants without elevated symptoms of psychopathology, the same curative effects of MBTR-R on mental health outcomes were observed, except for depression and well-being. Significant improvement in depression symptoms was observed at 5-weeks follow-up but not immediately following the intervention—indeed, levels of depression were lower at follow-up than at postintervention (see Table S4 in the Supplemental Material). In the parallel full case complete ITT sample, the same effects were observed for PTSD and anxiety outcomes but not for depression symptoms or subjective well-being at postintervention (see Table S3 in the Supplemental Material). Finally, when recoding PTSD symptom cluster using criteria from the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*; i.e., three-cluster vs. four-cluster), findings were nearly identical to those reported for criteria from the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV*) in all analyses (American Psychiatric Association, 1994, 2013; Berthold et al., 2018).

***Diagnostic-level of symptoms: categorical status.*** See Table 3. Whereas 90.9% of the waitlist-control group who demonstrated categorical (diagnostic) symptom status of PTSD at preintervention still presented PTSD at 1-week postintervention, a significantly smaller 48.3% of MBTR-R participants still did so at 1-week- postintervention and 62% at 5-week follow-up. Likewise, whereas 88.5% of the waitlist-control group with categorical (diagnostic) symptom status of depression at preintervention still presented with depression at 1-week postintervention, a significantly smaller 58.8% of MBTR-R participants did so at 5-week follow-up, but a smaller, although nonsignificantly lower, 70.6% still presented with depression at 1-week postintervention. Finally, whereas 90% of the waitlist-control group who demonstrated categorical (diagnostic) symptom status of anxiety at preintervention still presented anxiety at 1-week postintervention, a significantly smaller, albeit still elevated, 66.7% of MBTR-R participants did so at 1-week postintervention and a nonsignificantly lower 78.3% at 5-week follow-up.

### *Aim 2. Generalizability of MBTR-R efficacy: moderation of therapeutic effects*

See Table S5 in the Supplemental Material. None of the observed reported therapeutic effects of MBTR-R on tested mental health and well-being outcomes at 1-week postintervention or 5-week follow-up (Aim 1) were moderated by age, gender, education, traumatic stress history, or postmigration living difficulties.

### *Aim 3. Safety and adverse effects of MBTR-R*

Among the full case complete ITT sample, we found that only one participant randomly assigned to MBTR-R demonstrated clinically significant deterioration in depression symptoms (> 1.96 *SD* change) at postintervention; although, at 5-week follow-up, this participant's levels of depression symptoms returned to preintervention levels. For comparison, we found that two participants in the waitlist-control group demonstrated significant deterioration (anxiety symptoms) at postintervention. Second, because of the very low base rate of adverse responding, planned analyses testing predictors of adverse outcomes could not be conducted—because no harm of MBTR-R was observed regardless of degree of preintervention demographics or level of vulnerability.

## Discussion

We are in the midst of a global mental health and human-rights crisis (Nickerson, Liddell, et al., 2017; Patel et al., 2018; UNHCR, 2019). Today, tens of millions of forcibly displaced persons may be suffering from trauma- and stress-related mental health problems (Giacco et al., 2018; Priebe et al., 2016). Relative to the scale, scope, and urgency of this still growing crisis (UNHCR, 2019), our collective capacity to care for these survivors via evidence-based mental health interventions tailored to refugees and asylum seekers is strikingly limited (Patel et al., 2018; Tol et al., 2014). Accordingly, in the hopes of contributing to field-wide efforts to develop a portfolio of specialized intervention programs tailored to refugees and asylum seekers (Singla et al., 2017; Tol et al., 2014), we developed MBTR-R. MBTR-R is a nine-session, trauma-sensitive, and socioculturally adapted mindfulness- and compassion-based group intervention for refugees and asylum seekers. We tested whether MBTR-R may be an efficacious and safe intervention for stress- and trauma-related mental health outcomes among a traumatized community sample of

African asylum seekers residing in an urban postdisplacement setting in the Middle East (Israel).

First, relative to the waitlist-control condition, MBTR-R led to significant improvements in stress- and trauma-related mental health outcomes, including PTSD, depression, anxiety, multimorbidity, and elevations in subjective well-being. Curative effects were observed for continuous symptom severity as well as categorical point-prevalence outcomes at 1-week postintervention and again at 5-week follow-up, respectively. The largest effects were observed for PTSD and posttraumatic reexperiencing and hyperarousal symptoms. These effects were observed when quantifying posttraumatic stress via Western psychiatric nosological criteria (*DSM*) and when operationalizing posttraumatic stress via socioculturally specific idioms (Badri et al., 2012; Berthold et al., 2018). Note that effects for all studied outcomes were robust enough among treatment completers that they remained significant in the parallel full case complete ITT sample analyses. In light of the high rates of retention of participants retained in the full case complete ITT sample, including prospective retention of participants who dropped out of the intervention, lack of differences in rate of attrition between conditions, as well as the lack of differences between participants prospectively retained in the study ($N = 131$) and those that dropped out ($N = 27$), therapeutic efficacy outcomes are likely largely robust and unbiased. Thus, because of the prevalence and severity of observed stress- and trauma-related mental health problems in this community-based sample of asylum seekers, their severe trauma history, and the ongoing extensive postmigration living difficulties they face, the observed curative effects are especially noteworthy.

Second, the intervention was similarly therapeutic among participants across key demographics of the studied population, trauma history severity, postmigration living difficulties, or severity of each respective mental health outcome at preintervention. These findings may be important in that they may indicate that the curative and salutary effects of MBTR-R are not likely limited to a small, circumscribed subgroup of the studied refugees or asylum seekers and, critically, may be effective among the most vulnerable participants. Given the huge spectrum of populations and backgrounds who have been forcibly displaced in recent years (UNHCR, 2019) and the potential public health importance of a sufficiently universal framework for mental health care that may be locally and socioculturally adapted (Singla et al., 2017), these are encouraging findings.

Third, we found that MBTR-R appears to be safe for even the most vulnerable asylum seekers. Indeed, MBTR-R was not associated with elevated participant-level rates of clinically significant deterioration (RCI-based classification) in any of the monitored mental health outcomes. This is critical given important questions about the capacity to safely adapt MBIs to participants with traumatic histories and trauma-related mental health problems (Baer et al., 2019; Treleaven, 2018). This is furthermore important given the ethical imperative to ensure that vulnerable refugees and asylum seekers, who have already experienced often multiple traumatic events and live under significant and chronic postmigration stress, are not harmed by even the best of therapeutic intentions (Gold et al., 2017; Lilienfeld, 2007).

Although only the first study of MBTR-R efficacy and safety, findings appear promising within the context of extant refuge global mental health research. First, MBTR-R was associated with clinically significant, medium to large therapeutic effects on prevalent and debilitating mental health disorders among refugees and asylum seekers (Bogic et al., 2015; Giacco et al., 2018). Although MBTR-R significantly therapeutically affected all facets of PTSD, these effects were particularly large for PTSD hyperarousal. These are promising findings given evidence that hyperarousal is often markedly elevated among traumatized refugee populations exposed to ongoing chronic stress (Giacco et al., 2018), is functionally important in the maintenance of PTSD symptoms among refugees (Spiller et al., 2017; Yuval et al., 2021), and is important to refugee trauma recovery (Neuner et al., 2018). Furthermore, therapeutic effects were not limited to PTSD symptoms and included depression, anxiety, and comorbidity and multimorbidity. These are therapeutically important findings given the prevalence, impairment, and disability associated with depression (Priebe et al., 2016) as well as multimorbidity among forcibly displaced people (Buhmann et al., 2016; Haagen et al., 2017; Mørkved et al., 2014; Momartin et al., 2004; Nickerson, Schick, et al., 2017).

Second, despite the group format of the intervention delivery, the size of the observed therapeutic effects was similar to or larger than reported effect sizes of intensive individualized psychotherapeutic interventions among refugees, including exposure-based therapies (e.g., NET; Lely et al., 2019), brief individual transdiagnostic interventions such as PM+ (Bryant et al., 2017; Rahman et al., 2016), and group-based mental health interventions for refugees such as SH+ (Tol et al., 2020). To establish the reliability or robustness of the observed therapeutic effect size, a replication is critical (Shrout & Rodgers, 2018). Observed effects are nevertheless a promising indicator of MBTR-R therapeutic potential to promote trauma recovery among this population.

Third, there was no demand on participants to continue mindfulness meditation or related practices, and no booster or follow-up mindfulness practice sessions were offered upon completion of MBTR-R. Yet therapeutic

effects of the intervention were largely maintained at 5-week follow-up and for depression, further improved. We speculate that systematically supporting participants to continue practicing after the intervention could help to promote longer term maintenance of therapeutic gains. This could be facilitated through an instructor-backed mobile MBTR-R e-health platform designed to help MBTR-R participants maintain or even improve therapeutic gains following the nine-session program (Bennett et al., 2019).

The present findings not only support MBTR-R's efficacy and safety but also provide initial evidence for the feasibility, acceptability, ability to implement, and potential scalability of MBTR-R. First, in line with its feasibility and acceptability, rates of MBTR-R session attendance were slightly lower than in other randomized controlled trials of MBIs WEIRD populations (Colgan et al., 2019; Kuyken et al., 2016; Polusny et al., 2015) but similar to randomized controlled trials that included individual psychotherapy-based interventions conducted among refugees (Bolton et al., 2014; Buhmann et al., 2016). Furthermore, MBTR-R feasibility and acceptability is bolstered by the potentially important finding that key demographics, trauma history severity, postmigration living difficulties, and mental health symptoms at preintervention did not predict number of intervention sessions attended or the likelihood to drop out or complete the intervention. Nor were attrition rates different between conditions. Thus, we speculate that intervention engagement and attrition are largely accounted for by extraneous factors that are a by-product of the challenging, unpredictable, and unstable life circumstances among this population (e.g., employment insecurity, long working hours, family obligations; Asgary & Segar, 2011; Western et al., 2016). Accordingly, MBTR-R attendance and study attrition suggest that MBTR-R might be an acceptable and feasible intervention in a general population of asylum seekers with varying levels of vulnerability and demographic characteristics (Roos et al., 2019; Simons & Kursawe, 2019). In addition, the group-based intervention format and brief, flexible mode of delivery of MBTR-R may enable scaling up of its delivery. Thus, MBTR-R appears to be efficacious and safe as well as feasible, readily implemented, and scalable even in stressful, insecure, and uncertain urban postdisplacement settings. Given the well-documented barriers to the implementation of effective mental health interventions for refugees and asylum-seeker populations around the world (Patel et al., 2018; Singla et al., 2017; Turrini et al., 2019), the observed findings may ultimately have public health significance.

Furthermore, we also observed secondary, albeit potentially important findings that the prospective course of symptoms among control participants across the 9-week waitlist period was highly stable. Of public health importance, these data indicate that similar populations of asylum seekers may be unlikely to demonstrate spontaneous improvement in their symptoms over time (Miller & Rasmussen, 2010, 2014). These prospective data thereby illustrate the urgency and importance to develop, test, and deliver mental health interventions tailored for refugees and asylum seekers (Nickerson, Liddell, et al., 2017; Tol et al., 2014). Finally, findings may also have implications for MBIs among other trauma-affected populations (Boyd et al., 2018; Winders et al., 2020). Given the growing interest in the application of MBIs among traumatized populations and the still limited standardized and tested trauma-sensitive MBI protocols, adaptations of MBTR-R to other trauma-affected populations may represent a promising future direction (for more details on MBIs and trauma recovery, see the Supplemental Material).

The study is limited in a number of ways. First, there was no active intervention comparison. A waitlist-control design appeared most ethically justifiable (as previously noted; Gold et al., 2017) and methodologically justifiable so as not to include a control intervention that may well be safe but is not directly comparable with MBTR-R, such as individual exposure-based psychotherapy (Davidson & Kaszniak, 2015; S. B. Goldberg et al., 2017). Future research may examine the effects of MBTR-R with respect to emerging group-based mental health interventions with evidence of safety and efficacy for refugees to account for the specific effects of group-based interventions such as social engagement and support or of psychoeducation or adaptive coping (Dawson et al., 2015).

Second, the study was conducted among Eritrean asylum seekers in the Middle East (Israel). We do not know with confidence that observed findings generalize to other refugee populations (e.g., country of origin, postdisplacement situations, sociocultural background) or contexts (e.g., stable resettlement communities, refugee camps). It is important for future work to test the degree to which observed findings are observed among socioculturally and linguistically diverse refugee populations and contexts. Note that this sampling strategy was also a strength of the design. Eritrean asylum seekers constitute a large group of asylum seekers worldwide (UNHCR, 2017). Their stressful, uncertain, and insecure urban postdisplacement setting represents a fast-growing context for forcibly displaced populations (UNHCR, 2019). Furthermore, and more practically, this permitted robust sociocultural adaptation of MBTR-R to this population per recommended best practices in global mental health interventions (Kirmayer et al., 2017; Lewis-Fernández et al., 2014; Singla et al., 2017). It is noteworthy that the sociocultural and linguistic homogeneity of the sample protects against potential

threats of internal validity that emerge from ad-mixing of distinct refugee populations (Kirmayer et al., 2017; Michalopoulos et al., 2015). Indeed, refugees or asylum seekers are a political status and not a sociocultural group (Kirmayer & Ryder, 2016; United Nations High Commissioner for Refugees, 2011). Thus, and although potentially limited to this population of Eritrean refugees, this approach to sampling is likely to yield findings that are robust and replicable.

Third, although safety and efficacy were measured with well-established and socioculturally adapted self-report measures, it remains to be tested whether we would have observed similar findings using other measurement modalities such as structured interviews or clinician ratings. We speculate that structured interviews could, paradoxically, bias the validity of measurement (Kirmayer et al., 2017; Warner et al., 2011). Because of stigma, diagnostic tools administered by an interviewer could potentiate underreporting of trauma history and symptoms at preintervention (Nickerson et al., 2020; Shannon et al., 2012); likewise, experimental demand characteristics could increase overreporting of desired curative effects at postintervention and at follow-up (Kanter et al., 2002; Orne, 1962). The interaction between measurement psychometrics and sociocultural factors among diverse populations of refugees and asylum seekers is likely to represent an important focus for global mental health research in the coming years (Silove et al., 2007).

Finally, follow-up was limited to 5 weeks because there was a great deal of uncertainty about future residential status of this population of asylum seekers at the time of the study (for more details, see the Supplemental Material; Guthmann, 2018). Nevertheless, it is important that future research tests the longer term maintenance of observed therapeutic effects. Despite the challenges of such prospective data collection in the uncertain and challenging context of postdisplacement, such knowledge is critical to guide the optimization and implementation of MBTR-R to ensure long-term therapeutic gains.

Together, we hope this study will contribute to field-wide efforts to promote refugee mental health among forcibly displaced people and the potential role of mindfulness- and compassion-based practices in such efforts. Reported findings of MBTR-R efficacy and safety are promising. Important next steps entail study of MBTR-R mechanisms of action (Baker et al., 2008), a second randomized control experimental test of MBTR-R efficacy (Chambless & Ollendick, 2001), and direct study of barriers to its implementation in urban post-displacement and refugee camp settings (Patel et al., 2018).

## Transparency

*Action Editor:* Christopher G. Beevers
*Editor:* Kenneth J. Sher
*Author Contributions*

A. Bernstein, A. Aizik-Reebs, and K. Yuval designed the study and conducted it together with S. Gebreyohans Gebremariam. Y. Hadash, A. Aizik-Reebs, K. Yuval, and A. Bernstein developed the mindfulness-based trauma recovery for refugees intervention program and manual. All authors contributed to manuscript writing. All of the authors approved the final manuscript for submission.

*Declaration of Conflicting Interests*

The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

*Funding*

This work was supported by Max-Planck-Gesellschaft, Mind and Life Institute, Charney Foundation, and Israeli Science Foundation Grant ISF 2046/16.

## ORCID iD


A. Aizik-Reebs https://orcid.org/0000-0002-3657-2225

## Acknowledgments

We thank the courageous asylum seekers who generously participated in the intervention and study; Sendel Abraham, Dawit Weldehawariat Habtai, Yikealo Beyene, and Mogus Kidane for their assistance in translation, recruitment, and study organization; the team at Kuchinate for hosting us to carry out this study, including Diddy Mymin-Kahn, Azezet Habtezghi Kidane, Ruth Garon, and the inspiring women of Kuchinate—Hewan Desta, Eden Gebre, Asmeret Haray, Fiori Yonas, and Achbaret Abraha; Orit Reem and Ron Alon for instructing the groups; Ron Peleg for his help in participant recruitment and data collection; Michal Schendar for conducting qualitative interviews with participants; Iftach Amir for his help in developing laboratory and behavioral tasks; Meital Gil Davis for behind-the-scenes coordination of study logistics, research funding, and personnel; and Ido Lurie and Ori Ganor for psychiatric consultation. The study is registered at ClinicalTrials.gov (NCT04380259).

## Supplemental Material

Additional supporting information can be found at http://journals.sagepub.com/doi/suppl/10.1177/2167702621998641

## References

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.).

American Psychiatric Association. (2013). *The diagnostic and statistical manual of mental disorders* (5th ed.).

Asgary, R., & Segar, N. (2011). Barriers to health care access among refugee asylum seekers. *Journal of Health Care for the Poor and Underserved*, *22*(2), 506–522.

Badri, A., Crutzen, R., & Van den Borne, H. W. (2012). Exposures to war-related traumatic events and post-traumatic stress disorder symptoms among displaced Darfuri female university students: An exploratory study. *BMC Public Health*, *12*(1), Article 603. https://doi.org/10.1186/1471-2458-12-603

Baer, R. A., Crane, C., Miller, E., & Kuyken, W. (2019). Doing no harm in mindfulness-based programs: Conceptual issues and empirical findings. *Clinical Psychology Review*, *71*, 101–114. https://doi.org/10.1016/j.cpr.2019.01.001

Baker, T. B., McFall, R. M., & Shoham, V. (2008). Current status and future prospects of clinical psychology: Toward a scientifically principled approach to mental and behavioral health care. *Psychological Science in the Public Interest*, *9*(2), 67–103. https://doi.org/10.1111/j.1539-6053.2009.01036.x

Banks, K., Newman, E., & Saleem, J. (2015). An overview of the research on mindfulness-based interventions for treating symptoms of posttraumatic stress disorder: A systematic review. *Journal of Clinical Psychology*, *71*(10), 935–963.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*(6), 893–897. https://doi.org/10.1037/0022-006X.56.6.893

Bennett, S. D., Cuijpers, P., Ebert, D. D., McKenzie Smith, M., Coughtrey, A. E., Heyman, I., Manzotti, G., & Shafran, R. (2019). Practitioner Review: Unguided and guided self-help interventions for common mental health disorders in children and adolescents: A systematic review and meta-analysis. *Journal of Child Psychology and Psychiatry*, *60*(8), 828–847. https://doi.org/10.1111/jcpp.13010

Bernal, G., & Sáez-Santiago, E. (2006). Culturally centered psychosocial interventions. *Journal of Community Psychology*, *34*(2), 121–132.

Bernstein, A., Hadash, Y., Lichtash, Y., Tanay, G., Shepherd, K., & Fresco, D. M. (2015). Decentering and related constructs: A critical review and metacognitive processes model. *Perspectives on Psychological Science*, *10*(5), 599–617.

Bernstein, A., Tanay, G., & Vujanovic, A. A. (2011). Concurrent relations between mindful attention and awareness and psychopathology among trauma-exposed adults: Preliminary evidence of transdiagnostic resilience. *Journal of Cognitive Psychotherapy*, *25*(2), 99–113.

Bernstein, A., Vago, D. R., & Barnhofer, T. (2019). Understanding mindfulness, one moment at a time: An introduction to the special issue. *Current Opinion in Psychology*, *28*, vi–x. https://doi.org/10.1016/j.copsyc.2019.08.001

Berthold, S. M., Mollica, R. F., Silove, D., Tay, A. K., Lavelle, J., & Lindert, J. (2018). The HTQ-5: Revision of the Harvard Trauma Questionnaire for measuring torture, trauma and DSM-5 PTSD symptoms in refugee populations. *European Journal of Public Health*, *29*(3), 468–474. https://doi.org/10.1093/eurpub/cky256

Birger, L., Shoham, S., & Bolzman, L. (2018). *Better a prison in Israel than dying on the way*. https://hotline.org.il/wp-content/uploads/2018/02/Testimonies-of-refugees-departed-Israel-to-Rwanda-and-Uganda-who-reached-Europe-research-report-Birger-Shoham-and-Bolzman-Jan-2018-ENG.pdf

Bogic, M., Njoku, A., & Priebe, S. (2015). Long-term mental health of war-refugees: A systematic literature review. *BMC International Health and Human Rights*, *15*(1), 15–29.

Bolton, P., Lee, C., Haroz, E. E., Murray, L., Dorsey, S., Robinson, C., Ugueto, A. M., & Bass, J. (2014). A Transdiagnostic community-based mental health treatment for comorbid disorders: Development and outcomes of a randomized controlled trial among Burmese Refugees in Thailand. *PLOS Medicine*, *11*(11), Article e1001757. https://doi.org/10.1371/journal.pmed.1001757

Borm, G. F., Fransen, J., & Lemmens, W. A. J. G. (2007). A simple sample size formula for analysis of covariance in randomized clinical trials. *Journal of Clinical Epidemiology*, *60*(12), 1234–1238. https://doi.org/10.1016/j.jclinepi.2007.02.006

Boyd, J. E., Lanius, R. A., & McKinnon, M. C. (2018). Mindfulness-based treatments for posttraumatic stress disorder: A review of the treatment literature and neurobiological evidence. *Journal of Psychiatry & Neuroscience*, *43*(1), 7–25. https://doi.org/10.1503/jpn.170021

Bryant, R. A., Schafer, A., Dawson, K. S., Anjuri, D., Mulili, C., Ndogoni, L., Koyiet, P., Sijbrandij, M., Ulate, J., Harper Shehadeh, M., Hadzi-Pavlovic, D., & van Ommeren, M. (2017). Effectiveness of a brief behavioural intervention on psychological distress among women with a history of gender-based violence in urban Kenya: A randomised clinical trial. *PLOS Medicine*, *14*(8), Article e1002371. https://doi.org/10.1371/journal.pmed.1002371

Buhmann, C. B., Nordentoft, M., Ekstroem, M., Carlsson, J. M., & Mortensen, E. L. (2016). The effect of flexible cognitive–behavioural therapy and medical treatment, including antidepressants on post-traumatic stress disorder and depression in traumatised refugees: Pragmatic randomised controlled clinical trial. *The British Journal of Psychiatry*, *208*(3), 252–259.

Burri, A., & Maercker, A. (2014). Differences in prevalence rates of PTSD in various European countries explained by war exposure, other trauma and cultural value orientation. *BMC Research Notes*, *7*(1), Article 407. https://doi.org/10.1186/1756-0500-7-407

Cahill, S. P., Foa, E. B., Hembree, E. A., Marshall, R. D., & Nacash, N. (2006). Dissemination of exposure therapy in the treatment of posttraumatic stress disorder. *Journal of Traumatic Stress*, *19*(5), 597–610.

Carlsson, J., Sonne, C., Vindbjerg, E., & Mortensen, E. L. (2018). Stress management versus cognitive restructuring in trauma-affected refugees—A pragmatic randomised study. *Psychiatry Research*, *266*, 116–123. https://doi.org/10.1016/j.psychres.2018.05.015

Chambless, D. L., & Ollendick, T. H. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review of Psychology*, *52*(1), 685–716. https://doi.org/10.1146/annurev.psych.52.1.685

Colgan, D. D., Christopher, M., Bowen, S., Brems, C., Hunsinger, M., Tucker, B., & Dapolonia, E. (2019). Mindfulness-based wellness and resilience intervention among interdisciplinary primary care teams: A mixed-methods feasibility and acceptability trial. *Primary Health*

*Care Research & Development*, *20*, Article e91. https://doi.org/10.1017/S1463423619000173

Connell, D. (2012). Escaping Eritrea: Why they flee and what they face. *Middle East Report*, *264*(Fall), 2–9.

Crane, R. S., Brewer, J., Feldman, C., Kabat-Zinn, J., Santorelli, S., Williams, J. M. G., & Kuyken, W. (2017). What defines mindfulness-based programs? The warp and the weft. *Psychological Medicine*, *47*(6), 990–999. https://doi.org/10.1017/S0033291716003317

Crane, R. S., & Kuyken, W. (2019). The Mindfulness-Based Interventions: Teaching Assessment Criteria (MBI:TAC): Reflections on implementation and development. *Current Opinion in Psychology*, *28*, 6–10. https://doi.org/10.1016/j.copsyc.2018.10.004

Crane, R. S., Stanley, S., Rooney, M., Bartley, T., Cooper, L., & Mardula, J. (2015). Disciplined improvisation: Characteristics of inquiry in mindfulness-based teaching. *Mindfulness*, *6*(5), 1104–1114. https://doi.org/10.1007/s12671-014-0361-8

Davidson, R. J., & Kaszniak, A. W. (2015). Conceptual and methodological issues in research on mindfulness and meditation. *American Psychologist*, *70*(7), 581–592. https://doi.org/10.1037/a0039512

Dawson, K. S., Bryant, R. A., Harper, M., Tay, A. K., Rahman, A., Schafer, A., & van Ommeren, M. (2015). Problem Management Plus (PM+): A WHO transdiagnostic psychological intervention for common mental health problems. *World Psychiatry*, *14*(3), 354–357. https://doi.org/10.1002/wps.20255

Didonna, F. (2009). Introduction: Where new and old paths to dealing with suffering meet. In F. Didonna (Ed.), *Clinical handbook of mindfulness* (pp. 1–14). Springer.

Dimidjian, S., & Segal, Z. V. (2015). Prospects for a clinical science of mindfulness-based intervention. *American Psychologist*, *70*(7), 593–620.

Dobkin, P. L., Irving, J. A., & Amar, S. (2012). For whom may participation in a mindfulness-based stress reduction program be contraindicated? *Mindfulness*, *3*(1), 44–50.

Dutton, M. A., Bermudez, D., Matas, A., Majid, H., & Myers, N. L. (2013). Mindfulness-based stress reduction for low-income, predominantly African American women with PTSD and a history of intimate partner violence. *Cognitive and Behavioral Practice*, *20*(1), 23–32.

Ehlers, A., Grey, N., Wild, J., Stott, R., Liness, S., Deale, A., Handley, R., Albert, I., Cullen, D., Hackmann, A., Manley, J., McManus, F., Brady, F., Salkovskis, P., & Clark, D. M. (2013). Implementation of Cognitive Therapy for PTSD in routine clinical care: Effectiveness and moderators of outcome in a consecutive sample. *Behaviour Research and Therapy*, *51*(11), 742–752. https://doi.org/10.1016/j.brat.2013.08.006

Ekeroth, K., & Birgegård, A. (2014). Evaluating reliable and clinically significant change in eating disorders: Comparisons to changes in DSM-IV diagnoses. *Psychiatry Research*, *216*(2), 248–254. https://doi.org/10.1016/j.psychres.2014.02.008

Elbert, T., Schauer, M., & Neuner, F. (2015). Narrative exposure therapy (NET): Reorganizing memories of traumatic stress, fear, and violence. In U. Schnyder & M. Cloitre (Eds.), *Evidence based treatments for trauma-related psychological disorders* (pp. 229–253). Springer.

Fjorback, L. O., Arendt, M., Ørnbøl, E., Fink, P., & Walach, H. (2011). Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy—A systematic review of randomized controlled trials. *Acta Psychiatrica Scandinavica*, *124*(2), 102–119. https://doi.org/10.1111/j.1600-0447.2011.01704.x

Fondacaro, K. M., & Harder, V. S. (2014). Connecting cultures: A training model promoting evidence-based psychological services for refugees. *Training and Education in Professional Psychology*, *8*(4), 320–327. https://doi.org/10.1037/tep0000071

Galante, J., Dufour, G., Vainre, M., Wagner, A. P., Stochl, J., Benton, A., Lathia, N., Howarth, E., & Jones, P. B. (2018). A mindfulness-based intervention to increase resilience to stress in university students (the Mindful Student Study): A pragmatic randomised controlled trial. *The Lancet Public Health*, *3*(2), e72–e81. https://doi.org/10.1016/S2468-2667(17)30231-1

Gallegos, A. M., Lytle, M. C., Moynihan, J. A., & Talbot, N. L. (2015). Mindfulness-based stress reduction to enhance psychological functioning and improve inflammatory biomarkers in trauma-exposed women: A pilot study. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(6), 525–532. https://doi.org/10.1037/tra0000053

Garland, E. L., Farb, N. A., Goldin, P. R., & Fredrickson, B. L. (2015). Mindfulness broadens awareness and builds eudaimonic meaning: A process model of mindful positive emotion regulation. *Psychological Inquiry*, *26*(4), 293–314.

Germer, C. K., & Neff, K. (2015). Cultivating self-compassion in trauma survivors. In V. M. Follette, J. Briere, D. Rozelle, J. W. Hopper, & D. I. Rome (Eds.), *Mindfulness-oriented interventions for trauma* (pp. 43–58). Guilford Press.

Giacco, D., Laxhman, N., & Priebe, S. (2018). Prevalence of and risk factors for mental disorders in refugees. *Seminars in Cell & Developmental Biology*, *77*, 144–152. https://doi.org/10.1016/j.semcdb.2017.11.030

Gold, S. M., Enck, P., Hasselmann, H., Friede, T., Hegerl, U., Mohr, D. C., & Otte, C. (2017). Control conditions for randomised trials of behavioural interventions in psychiatry: A decision framework. *The Lancet Psychiatry*, *4*(9), 725–732. https://doi.org/10.1016/S2215-0366(17)30153-0

Goldberg, J. D. (2020). Intention to treat and alternative approaches. In S. Piantadosi & C. L. Meinert (Eds.), *Principles and practice of clinical trials* (pp. 1–18). Springer International Publishing. https://doi.org/10.1007/978-3-319-52677-5_113-1

Goldberg, S. B., Tucker, R. P., Greene, P. A., Simpson, T. L., Kearney, D. J., & Davidson, R. J. (2017). Is mindfulness research methodology improving over time? A systematic review. *PLOS ONE*, *12*(10), Article e0187298. https://doi.org/10.1371/journal.pone.0187298

Goldsmith, R. E., Gerhart, J. I., Chesney, S. A., Burns, J. W., Kleinman, B., & Hood, M. M. (2014). Mindfulness-based stress reduction for posttraumatic stress symptoms: Building acceptance and decreasing shame. *Journal of Evidence-Based Complementary & Alternative Medicine*, *19*(4), 227–234.

Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. *Clinical Psychology Review*, *37*, 1–12.

Guruge, S., & Butt, H. (2015). A scoping review of mental health issues and concerns among immigrant and refugee youth in Canada: Looking back, moving forward. *Canadian Journal of Public Health*, *106*(2), e72–e78.

Guthmann, A. (2018). *The "Voluntary" Departure and Israel's plan for deportation to third countries*. Hotline for Refugees and Migrants.

Haagen, J. F., Heide, F., Mooren, T. M., Knipscheer, J. W., & Kleber, R. J. (2017). Predicting post-traumatic stress disorder treatment response in refugees: Multilevel analysis. *British Journal of Clinical Psychology*, *56*(1), 69–83.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.

Held, P., & Owens, G. P. (2015). Effects of self-compassion workbook training on trauma-related guilt in a sample of homeless veterans: A pilot study. *Journal of Clinical Psychology*, *71*(6), 513–526.

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., Rivera, E., Otto, M. W., & Pollack, M. H. (2011). Culturally adapted CBT (CA-CBT) for Latino women with treatment-resistant PTSD: A pilot study comparing CA-CBT to applied muscle relaxation. *Behaviour Research and Therapy*, *49*(4), 275–280. https://doi.org/10.1016/j.brat.2011.01.005

Hinton, D. E., Ojserkis, R. A., Jalal, B., Peou, S., & Hofmann, S. G. (2013). Loving-kindness in the treatment of traumatized refugees and minority groups: A typology of mindfulness and the nodal network model of affect and affect regulation. *Journal of Clinical Psychology*, *69*(8), 817–828.

Hopwood, T. L., & Schutte, N. S. (2017). A meta-analytic investigation of the impact of mindfulness-based interventions on post traumatic stress. *Clinical Psychology Review*, *57*, 12–20.

Hugman, R., Pittaway, E., & Bartolomei, L. (2011). When 'Do No Harm' is not enough: The ethics of research with refugees and other vulnerable groups. *The British Journal of Social Work*, *41*(7), 1271–1287. https://doi.org/10.1093/bjsw/bcr013

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to Denning meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, *59*(1), 12–19.

Jha, A. P., Morrison, A. B., Parker, S. C., & Stanley, E. A. (2017). Practice is protective: Mindfulness training promotes cognitive resilience in high-stress cohorts. *Mindfulness*, *8*(1), 46–58. https://doi.org/10.1007/s12671-015-0465-9

Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your mind and body to face stress, pain, and illness*. Delacorte.

Kabat-Zinn, J. (2017). *Mindfulness-Based Stress Reduction (MBSR) authorized curriculum guide*. Center for Mindfulness in Medicine, Health Care, and Society (CFM), University of Massachusetts Medical School.

Kabat-Zinn, J. (2019). Foreword: Seeds of a necessary global renaissance in the making: The refining of psychology's understanding of the nature of mind, self, and embodiment through the lens of mindfulness and its origins at a key inflection point for the species. *Current Opinion in Psychology*, *28*, xi–xvii. https://doi.org/10.1016/j.copsyc.2019.02.005

Kanter, J. W., Kohlenberg, R. J., & Loftus, E. F. (2002). Demand characteristics, treatment rationales, and cognitive therapy for depression. *Prevention & Treatment*, *5*(1), Article 41. https://doi.org/10.1037/1522-3736.5.1.541c

Kazdin, A. E., & Blase, S. L. (2011). Rebooting psychotherapy research and practice to reduce the burden of mental illness. *Perspectives on Psychological Science*, *6*(1), 21–37.

Kelly, A., & Garland, E. L. (2016). Trauma-informed mindfulness-based stress reduction for female survivors of interpersonal violence: Results from a stage I RCT. *Journal of Clinical Psychology*, *72*(4), 311–328. https://doi.org/10.1002/jclp.22273

Keng, S.-L., Smoski, M. J., & Robins, C. J. (2011). Effects of mindfulness on psychological health: A review of empirical studies. *Clinical Psychology Review*, *31*(6), 1041–1056.

Kim, S. H., Schneider, S. M., Kravitz, L., Mermier, C., & Burge, M. R. (2013). Mind-body practices for posttraumatic stress disorder. *Journal of Investigative Medicine*, *61*(5), 827–834. https://doi.org/10.2310/JIM.0b013e3182906862

Kirmayer, L. J., Gomez-Carrillo, A., & Veissière, S. (2017). Culture and depression in global mental health: An ecosocial approach to the phenomenology of psychiatric disorders. *Social Science & Medicine*, *183*, 151–162.

Kirmayer, L. J., & Ryder, A. G. (2016). Culture and psychopathology. *Current Opinion in Psychology*, *8*, 143–148. https://doi.org/10.1016/j.copsyc.2015.10.020

Krusche, A., Cyhlarova, E., & Williams, J. M. G. (2013). Mindfulness online: An evaluation of the feasibility of a web-based mindfulness course for stress, anxiety and depression. *BMJ Open*, *3*(11), Article e003498. https://doi.org/10.1136/bmjopen-2013-003498

Kuyken, W., Warren, F. C., Taylor, R. S., Whalley, B., Crane, C., Bondolfi, G., Hayes, R., Huijbers, M., Ma, H., & Schweizer, S. (2016). Efficacy of mindfulness-based cognitive therapy in prevention of depressive relapse: An individual patient data meta-analysis from randomized trials. *JAMA Psychiatry*, *73*(6), 565–574.

Lely, J. C. G., Smid, G. E., Jongedijk, R. A., Knipscheer, J. W., & Kleber, R. J. (2019). The effectiveness of narrative exposure therapy: A review, meta-analysis and meta-regression analysis. *European Journal of Psychotraumatology*, *10*(1), Article 1550344. https://doi.org/10.1080/20008198.2018.1550344

Lewis-Fernández, R. H., Devon, E., & Marques, L. (2014). Culture and PTSD. In M. J. Friedman, T. M. Keane, & P. A. Resick (Eds.), *Handbook of PTSD: Science and practice* (2nd ed., pp. 522–539). Guilford Press.

Li, S. S., Liddell, B. J., & Nickerson, A. (2016). The relationship between post-migration stress and psychological disorders

in refugees and asylum seekers. *Current Psychiatry Reports*, *18*(9), Article 82. https://doi.org/10.1007/s11920-016-0723-0

Lilienfeld, S. O. (2007). Psychological treatments that cause harm. *Perspectives on Psychological Science*, *2*(1), 53–70.

Lindsay, E. K., & Creswell, J. D. (2017). Mechanisms of mindfulness training: Monitor and Acceptance Theory (MAT). *Clinical Psychology Review*, *51*, 48–59. https://doi.org/10.1016/j.cpr.2016.10.011

Meyer, S. (2013). *UNHCR's mental health and psychosocial support for persons of concern* (Policy Development and Evaluation Service Issue). United Nations High Commissioner for Refugees.

Michalopoulos, L. M., Unick, G. J., Haroz, E. E., Bass, J., Murray, L. K., & Bolton, P. A. (2015). Exploring the fit of Western PTSD models across three non-Western low-and middle-income countries. *Traumatology*, *21*(2), 1–10.

Miller, K. E., & Fernando, G. A. (2008). Epidemiological assessment in emergency settings: Recommendations for enhancing a potentially useful tool. *Intervention*, *6*(3), 255–260.

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*(1), 27–39. https://doi.org/10.1037/0002-9432.75.1.27

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*(1), 7–16. https://doi.org/10.1016/j.socscimed.2009.09.029

Miller, K. E., & Rasmussen, A. (2014). War experiences, daily stressors and mental health five years on: Elaborations and future directions. *Intervention*, *12*, 33–42.

Miller, K. E., & Rasmussen, A. (2017). The mental health of civilians displaced by armed conflict: An ecological model of refugee distress. *Epidemiology and Psychiatric Sciences*, *26*(2), 129–138.

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine*, *151*. https://doi.org/10.7326/0003-4819-151-4-200908180-00135

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. *The Journal of Nervous and Mental Disease*, *180*(2), 111–116.

Momartin, S., Silove, D., Manicavasagar, V., & Steel, Z. (2004). Comorbidity of PTSD and depression: Associations with trauma exposure, symptom severity and functional impairment in Bosnian refugees resettled in Australia. *Journal of Affective Disorders*, *80*(2), 231–238. https://doi.org/10.1016/S0165-0327(03)00131-9

Mørkved, N., Hartmann, K., Aarsheim, L. M., Holen, D., Milde, A. M., Bomyea, J., & Thorp, S. R. (2014). A comparison of Narrative Exposure Therapy and Prolonged Exposure therapy for PTSD. *Clinical Psychology Review*, *34*(6), 453–467. https://doi.org/10.1016/j.cpr.2014.06.005

Mrazek, A. J., Mrazek, M. D., Cherolini, C. M., Cloughesy, J. N., Cynman, D. J., Gougis, L. J., Landry, A. P., Reese, J. V., & Schooler, J. W. (2019). The future of mindfulness training is digital, and the future is now. *Current Opinion in Psychology*, *28*, 81–86. https://doi.org/10.1016/j.copsyc.2018.11.012

Müller-Engelmann, M., Schreiber, C., Kümmerle, S., Heidenreich, T., Stangier, U., & Steil, R. (2019). A trauma-adapted mindfulness and loving-kindness intervention for patients with PTSD after interpersonal violence: A multiple-baseline study. *Mindfulness*, *10*(6), 1105–1123. https://doi.org/10.1007/s12671-018-1068-z

Murray, L. K., Dorsey, S., Haroz, E., Lee, C., Alsiary, M. M., Haydary, A., Weiss, W. M., & Bolton, P. (2014). A common elements treatment approach for adult mental health problems in low-and middle-income countries. *Cognitive and Behavioral Practice*, *21*(2), 111–123.

Murray, L. K., Tol, W., Jordans, M., Sabir, G., Amin, A. M., Bolton, P., Bass, J., Bonilla-Escobar, F. J., & Thornicroft, G. (2014). Dissemination and implementation of evidence based, mental health interventions in post conflict, low resource settings. *Intervention: Journal of Mental Health and Psychosocial Support in Conflict Affected Areas*, *12*(4), 94–112. https://doi.org/10.1097/WTF.0000000000000070

Nakash, O., Nagar, M., Shoshani, A., & Lurie, I. (2017). The association between perceived social support and post-traumatic stress symptoms among Eritrean and Sudanese male asylum seekers in Israel. *International Journal of Culture and Mental Health*, *10*(3), 261–275. https://doi.org/10.1080/17542863.2017.1299190

Neuner, F., Elbert, T., & Schauer, M. (2018). Narrative Exposure Therapy (NET) as a treatment for traumatized refugees and post-conflict populations. In N. Morina & A. Nickerson (Eds.), *Mental health of refugee and conflict-affected populations: Theory, research and clinical practice* (pp. 183–199). Springer International Publishing. https://doi.org/10.1007/978-3-319-97046-2_9

Nickerson, A., Bryant, R. A., Silove, D., & Steel, Z. (2011). A critical review of psychological treatments of post-traumatic stress disorder in refugees. *Clinical Psychology Review*, *31*(3), 399–417.

Nickerson, A., Byrow, Y., Pajak, R., McMahon, T., Bryant, R. A., Christensen, H., & Liddell, B. J. (2020). 'Tell Your Story': A randomized controlled trial of an online intervention to reduce mental health stigma and increase help-seeking in refugee men with posttraumatic stress. *Psychological Medicine*, *50*(5), 781–792. https://doi.org/10.1017/S0033291719000606

Nickerson, A., Liddell, B., Asnaani, A., Carlsson, J., Fazel, M., Knaevelsrud, C., Neuner, F., Newnham, E., & Rasmussen, A. (2017). *Trauma and mental health in forcibly displaced populations: An International Society for Traumatic Stress Studies Briefing Paper*. International Society for Traumatic Stress Studies. https://istss.org/getattachment/Education-Research/Briefing-Papers/Trauma-and-Mental-Health-in-Forcibly-Displaced-Pop/Displaced-Populations-Briefing-Paper_Final.pdf.aspx

Nickerson, A., Schick, M., Schnyder, U., Bryant, R. A., & Morina, N. (2017). Comorbidity of posttraumatic stress disorder and depression in tortured, treatment-seeking refugees. *Journal of Traumatic Stress*, *30*(4), 409–415. https://doi.org/10.1002/jts.22205

Nidich, S., Mills, P. J., Rainforth, M., Heppner, P., Schneider, R. H., Rosenthal, N. E., Salerno, J., Gaylord-King, C., & Rutledge, T. (2018). Non-trauma-focused meditation versus exposure therapy in veterans with post-traumatic stress disorder: A randomised controlled trial. *The Lancet Psychiatry*, *5*(12), 975–986.

Norman, S. B., Hami Cissell, S., Means-Christensen, A. J., & Stein, M. B. (2006). Development and validation of an overall anxiety severity and impairment scale (OASIS). *Depression and Anxiety*, *23*(4), 245–249.

Orgal, Y. A., Liberman, G., & Avivi, S. K. (2019). Israel's 'Voluntary' return policy to expel refugees: The illusion of choice. In M. van Reisen, M. Mawere, & K. A. Gebre-Egziabher (Eds.), *Mobile Africa: Human trafficking and the digital divide* (pp. 209–237). Langaa RPCIG.

Orne, M. T. (1962). On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications. *American Psychologist*, *17*(11), 776–783. https://doi.org/10.1037/h0043424

Pascoe, M. C., Thompson, D. R., Jenkins, Z. M., & Ski, C. F. (2017). Mindfulness mediates the physiological markers of stress: Systematic review and meta-analysis. *Journal of Psychiatric Research*, *95*, 156–178. https://doi.org/10.1016/j.jpsychires.2017.08.004

Patel, V. (2016). From delivery science to discovery science: Realising the full potential of global mental health. *Epidemiology and Psychiatric Sciences*, *25*(6), 499–502. https://doi.org/10.1017/S2045796016000263

Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., Chisholm, D., Collins, P. Y., Cooper, J. L., & Eaton, J. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet*, *392*(10157), 1553–1598.

Polusny, M. A., Erbes, C. R., Thuras, P., Moran, A., Lamberty, G. J., Collins, R. C., Rodman, J. L., & Lim, K. O. (2015). Mindfulness-based stress reduction for posttraumatic stress disorder among veterans: A randomized clinical trial. *JAMA*, *314*(5), 456–465.

Possemato, K., Bergen-Cico, D., Treatman, S., Allen, C., Wade, M., & Pigeon, W. (2015). A randomized clinical trial of primary care brief mindfulness training for veterans with PTSD. *Journal of Clinical Psychology*, *72*(3), 179–193.

Priebe, S., Giacco, D., & El-Nagib, R. (2016). *Public health aspects of mental health among migrants and refugees: A review of the evidence on mental health care for refugees, asylum seekers and irregular migrants in the WHO European Region*. Health Evidence Network.

Purgato, M., Carswell, K., Acarturk, C., Au, T., Akbai, S., Anttila, M., Baumgartner, J., Bailey, D., Biondi, M., Bird, M., Churchill, R., Eskici, S., Hansen, L. J., Heron, P., Ilkkursun, Z., Kilian, R., Koesters, M., Lantta, T., Nosè, M., . . . van Ommeren, M. (2019). Effectiveness and cost-effectiveness of Self-Help Plus (SH+) for preventing mental disorders in refugees and asylum seekers in Europe and Turkey: Study protocols for two randomised controlled trials. *BMJ Open*, *9*(5), Article e030259. https://doi.org/10.1136/bmjopen-2019-030259

Rahman, A., Riaz, N., Dawson, K. S., Hamdani, S. U., Chiumento, A., Sijbrandij, M., Minhas, F., Bryant, R. A., Saeed, K., van Ommeren, M., & Farooq, S. (2016). Problem Management Plus (PM+): Pilot trial of a WHO transdiagnostic psychological intervention in conflict-affected Pakistan. *World Psychiatry*, *15*(2), 182–183. https://doi.org/10.1002/wps.20312

Reebs, A., Yuval, K., & Bernstein, A. (2017). Remembering and responding to traumatic autobiographical memories: Exploring risk and intervention targets for posttraumatic stress in traumatized refugees. *Clinical Psychological Science*, *5*(5), 789–797.

Robjant, K., & Fazel, M. (2010). The emerging evidence for narrative exposure therapy: A review. *Clinical Psychology Review*, *30*(8), 1030–1039.

Roos, C. R., Kirouac, M., Stein, E., Wilson, A. D., Bowen, S., & Witkiewitz, K. (2019). An Open Trial of Rolling Admission Mindfulness-Based Relapse Prevention (Rolling MBRP): Feasibility, acceptability, dose-response relations, and mechanisms. *Mindfulness*, *10*(6), 1062–1073.

Rozen, S. (2015). *Deported to the unknown*. https://hotline.org.il/en/publication/deported-to-the-unknown-2/

Sartorius, N., & Kuyken, W. (1994). Translation of health status instruments. In J. Orley & W. Kuyken (Eds.), *Quality of life assessment: International perspectives* (pp. 3–18). Springer.

Schick, M., Morina, N., Schnyder, U., & Maier, T. (2018). Clinical considerations in the psychological treatment of refugees. In N. Morina & A. Nickerson (Eds.), *Mental health of refugee and conflict-affected populations: Theory, research and clinical practice* (pp. 283–302). Springer.

Schick, M., Zumwald, A., Knöpfli, B., Nickerson, A., Bryant, R. A., Schnyder, U., Müller, J., & Morina, N. (2016). Challenging future, challenging past: The relationship of social integration and psychological impairment in traumatized refugees. *European Journal of Psychotraumatology*, *7*(1), Article 28057. https://doi.org/10.3402/ejpt.v7.28057

Segal, Z. V., Dimidjian, S., Vanderkruik, R., & Levy, J. (2019). A maturing mindfulness-based cognitive therapy reflects on two critical issues. *Current Opinion in Psychology*, *28*, 218–222. https://doi.org/10.1016/j.copsyc.2019.01.015

Segal, Z. V., Williams, J. M., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. Guilford Press.

Segal, Z. V., Williams, J. M., & Teasdale, J. D. (2013). *Mindfulness-based cognitive therapy for depression* (2nd ed.). Guilford Press.

Shannon, P., O'Dougherty, M., & Mehta, E. (2012). Refugees' perspectives on barriers to communication about trauma histories in primary care. *Mental Health in Family Medicine*, *9*(1), 47–55. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3487607/

Shapiro, F. (2001). *Eye movement desensitization and reprocessing (EMDR): Basic principles, protocols, and procedures*. Guilford Press.

Shoham, A., Goldstein, P., Oren, R., Spivak, D., & Bernstein, A. (2017). Decentering in the process of cultivating mindfulness: An experience-sampling study in time and context.

*Journal of Consulting and Clinical Psychology*, *85*(2), 123–134.

Shrout, P. E., & Rodgers, J. L. (2018). Psychology, science, and knowledge construction: Broadening perspectives from the replication crisis. *Annual Review of Psychology*, *69*(1), 487–510. https://doi.org/10.1146/annurev-psych-122216-011845

Silove, D., Manicavasagar, V., Mollica, R., Thai, M., Khiek, D., Lavelle, J., & Tor, S. (2007). Screening for depression and PTSD in a Cambodian population unaffected by war: Comparing the Hopkins Symptom Checklist and Harvard Trauma Questionnaire with the Structured Clinical Interview. *The Journal of Nervous and Mental Disease*, *195*(2), 152–157. https://doi.org/10.1097/01.nmd.0000254747.03333.70

Silove, D., Sinnerbrink, I., Field, A., Manicavasagar, V., & Steel, Z. (1997). Anxiety, depression and PTSD in asylum-seekers: Associations with pre-migration trauma and post-migration stressors. *The British Journal of Psychiatry*, *170*(4), 351–357.

Silove, D., Ventevogel, P., & Rees, S. (2017). The contemporary refugee crisis: An overview of mental health challenges. *World Psychiatry*, *16*(2), 130–139.

Simons, M., & Kursawe, A. L. (2019). Metacognitive therapy for posttraumatic stress disorder in youth: A feasibility study. *Frontiers in Psychology*, *10*, Article 264. https://doi.org/10.3389/fpsyg.2019.00264

Singla, D. R., Kohrt, B. A., Murray, L. K., Anand, A., Chorpita, B. F., & Patel, V. (2017). Psychological treatments for the world: Lessons from low- and middle-income countries. *Annual Review of Clinical Psychology*, *13*(1), 149–181. https://doi.org/10.1146/annurev-clinpsy-032816-045217

Siriwardhana, C., Ali, S. S., Roberts, B., & Stewart, R. (2014). A systematic review of resilience and mental health outcomes of conflict-driven adult forced migrants. *Conflict and Health*, *8*(1), Article 13. https://doi.org/10.1186/1752-1505-8-13

Slobodin, O., & de Jong, J. T. (2015). Mental health interventions for traumatized asylum seekers and refugees: What do we know about their efficacy? *International Journal of Social Psychiatry*, *61*(1), 17–26.

Smith, B. W., Ortiz, J. A., Steffen, L. E., Tooley, E. M., Wiggins, K. T., Yeater, E. A., Montoya, J. D., & Bernard, M. L. (2011). Mindfulness is associated with fewer PTSD symptoms, depressive symptoms, physical symptoms, and alcohol problems in urban firefighters. *Journal of Consulting and Clinical Psychology*, *79*(5), 613–617.

Sobczak, L. R., & West, L. M. (2013). Clinical considerations in using mindfulness-and acceptance-based approaches with diverse populations: Addressing challenges in service delivery in diverse community settings. *Cognitive and Behavioral Practice*, *20*(1), 13–22.

Spiegel, P. B., Checchi, F., Colombo, S., & Paik, E. (2010). Health-care needs of people affected by conflict: Future trends and changing frameworks. *The Lancet*, *375*(9711), 341–345. https://doi.org/10.1016/S0140-6736(09)61873-0

Spiller, T. R., Schick, M., Schnyder, U., Bryant, R. A., Nickerson, A., & Morina, N. (2017). Symptoms of posttraumatic stress disorder in a clinical sample of refugees: A network analysis. *European Journal of Psychotraumatology*, *8*(Suppl. 3), Article 1318032. https://doi.org/10.1080/20008198.2017.1318032

Spinhoven, P., Huijbers, M. J., Ormel, J., & Speckens, A. E. M. (2017). Improvement of mindfulness skills during Mindfulness-Based Cognitive Therapy predicts long-term reductions of neuroticism in persons with recurrent depression in remission. *Journal of Affective Disorders*, *213*, 112–117. https://doi.org/10.1016/j.jad.2017.02.011

Spitzer, R. L., Kroenke, K., & Williams, J. W. (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ primary care study. *JAMA*, *282*(18), 1737–1744. https://doi.org/10.1001/jama.282.18.1737

Stein, J., Luppa, M., Maier, W., Wagner, M., Wolfsgruber, S., Scherer, M., Köhler, M., Eisele, M., Weyerer, S., & Werle, J. (2012). Assessing cognitive changes in the elderly: Reliable change indices for the Mini-Mental State Examination. *Acta Psychiatrica Scandinavica*, *126*(3), 208–218.

Stephenson, K. R., Simpson, T. L., Martinez, M. E., & Kearney, D. J. (2017). Changes in mindfulness and posttraumatic stress disorder symptoms among veterans enrolled in mindfulness-based stress reduction. *Journal of Clinical Psychology*, *73*(3), 201–217.

Su, R., Tay, L., & Diener, E. (2014). The development and validation of the Comprehensive Inventory of Thriving (CIT) and the Brief Inventory of Thriving (BIT). *Applied Psychology: Health and Well-Being*, *6*(3), 251–279.

Tanay, G., & Bernstein, A. (2013). State Mindfulness Scale (SMS): Development and initial validation. *Psychological Assessment*, *25*(4), 1286–1299.

Teasdale, J. D., Moore, R. G., Hayhurst, H., Pope, M., Williams, S., & Segal, Z. V. (2002). Metacognitive awareness and prevention of relapse in depression: Empirical evidence. *Journal of Consulting and Clinical Psychology*, *70*(2), 275–287. https://doi.org/10.1037/0022-006X.70.2.275

Teasdale, J. D., Segal, Z. V., Williams, J. M., Ridgeway, V. A., Soulsby, J. M., & Lau, M. A. (2000). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology*, *68*(4), 615–623. https://doi.org/10.1037/0022-006X.68.4.615

Teper, R., Segal, Z. V., & Inzlicht, M. (2013). Inside the mindful mind how mindfulness enhances emotion regulation through improvements in executive control. *Current Directions in Psychological Science*, *22*(6), 449–454.

Thupten, J. (2019). The question of mindfulness' connection with ethics and compassion. *Current Opinion in Psychology*, *28*, 71–75. https://doi.org/10.1016/j.copsyc.2018.10.016

Tol, W. A., Augustinavicius, J., Carswell, K., Brown, F. L., Adaku, A., Leku, M. R., García-Moreno, C., Ventevogel, P., White, R. G., & van Ommeren, M. (2018). Translation, adaptation, and pilot of a guided self-help intervention to reduce psychological distress in South Sudanese refugees in Uganda. *Global Mental Health*, *5*, Article e25. https://doi.org/10.1017/gmh.2018.14

Tol, W. A., Augustinavicius, J., Carswell, K., Leku, M. R., Adaku, A., Brown, F. L., García-Moreno, C., Ventevogel, P., White, R. G., Kogan, C. S., Bryant, R., & van Ommeren, M. (2018). Feasibility of a guided self-help intervention to

reduce psychological distress in South Sudanese refugee women in Uganda. *World Psychiatry*, *17*(2), 234–235. https://doi.org/10.1002/wps.20537

Tol, W. A., Barbui, C., Bisson, J., Cohen, J., Hijazi, Z., Jones, L., de Jong, J. T. V. M., Magrini, N., Omigbodun, O., Seedat, S., Silove, D., Souza, R., Sumathipala, A., Vijayakumar, L., Weissbecker, I., Zatzick, D., & van Ommeren, M. (2014). World Health Organization guidelines for management of acute stress, PTSD, and bereavement: Key challenges on the road ahead. *PLOS Medicine*, *11*(12), Article e1001769. https://doi.org/10.1371/journal.pmed.1001769

Tol, W. A., Leku, M. R., Lakin, D. P., Carswell, K., Augustinavicius, J., Adaku, A., Au, T. M., Brown, F. L., Bryant, R. A., Garcia-Moreno, C., Musci, R. J., Ventevogel, P., White, R. G., & van Ommeren, M. (2020). Guided self-help to reduce psychological distress in South Sudanese female refugees in Uganda: A cluster randomised trial. *The Lancet Global Health*, *8*(2), e254–e263. https://doi.org/10.1016/S2214-109X(19)30504-2

Treleaven, D. A. (2018). *Trauma-sensitive mindfulness: Practices for safe and transformative healing*. W. W. Norton.

Turrini, G., Purgato, M., Acarturk, C., Anttila, M., Au, T., Ballette, F., Bird, M., Carswell, K., Churchill, R., & Cuijpers, P. (2019). Efficacy and acceptability of psychosocial interventions in asylum seekers and refugees: Systematic review and meta-analysis. *Epidemiology and Psychiatric Sciences*, *28*(4), 376–388. https://doi.org/10.1017/S2045796019000027

United Nations High Commissioner for Refugees. (2011). *UNHCR protection training manual for European border and entry officials*. https://www.unhcr.org/publications/manuals/4d944c319/3-refugee-manual.html

United Nations High Commissioner for Refugees. (2017). *Global trends: Forced displacement in 2016*. https://www.unhcr.org/globaltrends2016/

United Nations High Commissioner for Refugees. (2019). *Global trends: Forced displacement in 2018*. https://www.unhcr.org/globaltrends2018/

van den Berg, D. P. G., de Bont, P. A. J. M., van der Vleugel, B. M., de Roos, C., de Jongh, A., van Minnen, A., & van der Gaag, M. (2016). Trauma-focused treatment in PTSD patients with psychosis: Symptom exacerbation, adverse events, and revictimization. *Schizophrenia Bulletin*, *42*(3), 693–702. https://doi.org/10.1093/schbul/sbv172

Van den Brink, E., & Koster, F. (2015). *Mindfulness-based compassionate living: A new training programme to deepen mindfulness with heartfulness*. Routledge.

Van der Gucht, K., Takano, K., Van Broeck, N., & Raes, F. (2015). A mindfulness-based intervention for economically disadvantaged people: Effects on symptoms of stress, anxiety, and depression and on cognitive reactivity and overgeneralization. *Mindfulness*, *6*(5), 1042–1052.

Van Der Velden, A. M., Kuyken, W., Wattar, U., Crane, C., Pallesen, K. J., Dahlgaard, J., Fjorback, L. O., & Piet, J. (2015). A systematic review of mechanisms of change in mindfulness-based cognitive therapy in the treatment of recurrent major depressive disorder. *Clinical Psychology Review*, *37*, 26–39. https://doi.org/10.1016/j.cpr.2015.02.001

Van Reisen, M., & Mawere, M. (2017). *Human trafficking and trauma in the digital era: The ongoing tragedy of the trade in refugees from Eritrea*. Langaa RPCIG.

Warner, C. H., Appenzeller, G. N., Grieger, T., Belenkiy, S., Breitbach, J., Parker, J., Warner, C. M., & Hoge, C. (2011). Importance of anonymity to encourage honest reporting in mental health screening after combat deployment. *Archives of General Psychiatry*, *68*(10), 1065–1071. https://doi.org/10.1001/archgenpsychiatry.2011.112

Weinstein, N., Khabbaz, F., & Legate, N. (2016). Enhancing need satisfaction to reduce psychological distress in Syrian refugees. *Journal of Consulting and Clinical Psychology*, *84*(7), 645–650. https://doi.org/10.1037/ccp0000095

Western, B., Braga, A., Hureau, D., & Sirois, C. (2016). Study retention as bias reduction in a hard-to-reach population. *Proceedings of the National Academy of Sciences, USA*, *113*(20), 5477–5485. https://doi.org/10.1073/pnas.1604138113

Wielgosz, J., Goldberg, S. B., Kral, T. R. A., Dunne, J. D., & Davidson, R. J. (2019). Mindfulness meditation and psychopathology. *Annual Review of Clinical Psychology*, *15*(1), 285–316. https://doi.org/10.1146/annurev-clinpsy-021815-093423

Winders, S.-J., Murphy, O., Looney, K., & O'Reilly, G. (2020). Self-compassion, trauma, and posttraumatic stress disorder: A systematic review. *Clinical Psychology & Psychotherapy*, *27*(3), 300–329. https://doi.org/10.1002/cpp.2429

Wong, S. Y. S., Chan, J. Y. C., Zhang, D., Lee, E. K. P., & Tsoi, K. K. F. (2018). The safety of mindfulness-based interventions: A systematic review of randomized controlled trials. *Mindfulness*, *9*(5), 1344–1357. https://doi.org/10.1007/s12671-018-0897-0

World Health Organization. (2013). *Mental health action plan 2013-2020*. https://apps.who.int/iris/rest/bitstreams/424776/retrieve

World Health Organization. (2016). *Problem Management Plus (PM+): Individual psychological help for adults impaired by distress in communities exposed to adversity* (Generic field-trial version 1.1). http://apps.who.int/iris/bitstream/10665/206417/1/WHO_MSD_MER_16.2_eng.pdf

Yuval, K., & Bernstein, A. (2017). Avoidance in posttraumatic stress among refugee survivors of violent conflict and atrocities: Testing trans-cultural risk processes and candidate intervention targets. *Behaviour Research and Therapy*, *99*, 157–163. https://doi.org/10.1016/j.brat.2017.10.008

Yuval, K., Reebs, A., Lurie, I., Demoz, D., & Bernstein, A. (2021). A functional network perspective on posttraumatic stress in refugees: Implications for theory, classification, assessment, and intervention. *Transcultural Psychiatry*, *58*(2), 268–282. https://doi.org/10.1177/1363461520965436

Yuval, K., Zvielli, A., & Bernstein, A. (2017). Attentional bias dynamics and posttraumatic stress in survivors of violent conflict and atrocities: New directions in clinical psychological science of refugee mental health. *Clinical Psychological Science*, *5*(1), 64–73. https://doi.org/10.1177/2167702616649349

Zahra, D., & Hedge, C. (2010). The reliable change index: Why isn't it more popular in academic psychology. *Psychology Postgraduate Affairs Group Quarterly*, *76*(76), 14–19.