REVIEW ARTICLE

Treating posttraumatic stress disorder across cultures: A systematic review of cultural adaptations of trauma-focused cognitive behavioral therapies

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Abstract

Objective: Although trauma-focused cognitive-behavioral therapies (CBTs) for posttraumatic stress disorder (PTSD) have been applied worldwide, the nature of how these Western-based interventions are applied in diverse settings has varied. This paper systematically reviewed the literature on how trauma-focused CBTs have been applied and adapted cross-culturally.

Method: A systematic review of studies that discuss the process of cultural adaptation of trauma-focused CBTs.

Results: Seventeen papers were included and varied in the comprehensiveness of the adaptation process. Two studies stated that a theoretical framework was followed. Almost one-third of the studies did not report whether local stakeholders were involved in the process of application. Fifteen studies examined the efficacy of the adaptations and the results were positive, but the methodology and quality varied.

Conclusion: There are inconsistencies in how trauma-focused CBTs are culturally adapted. A systematic approach to the transportation of such therapies would enable greater investigation into the necessity and efficacy of such adaptations.

1 | INTRODUCTION

Traumatic events are pervasive, with data estimating that 70% or more of the population worldwide have experienced a traumatic event in their lifetime (Benjet, Bromet, Karam, & Kessler, 2016). There are differences in how different cultural groups define psychological reactions to trauma, reflecting the diversity of clinical presentations, as well as clinicians' perceptions of this complicated phenomena (Shalev, Liberzon, & Marmar, 2017). Bearing this in mind, posttraumatic stress disorder (PTSD) is considered the most prevalent psychological outcome following exposure to a traumatic event (Shalev et al., 2017), and it is considered a global burden, with prevalence rates ranging from 1.3% to 37.4%, depending on the specific population and the nature of the traumatic exposure (Van Ameringen, Mancini, Patterson, & Boyle, 2008). Moreover, with the current influx of people who endorse traumatic events in their home countries or on their way to immigrate to another, there is a growing need for adapting evidence-based therapies (EBTs) for PTSD for populations of non-Westerners (Giammusso et al., 2018). PTSD is characterized by intrusion symptoms (e.g., flashbacks, distressing dreams), persistent avoidance of stimuli associated with the traumatic event, negative alterations in cognitions and moods (e.g., persistent negative emotional state), and alterations in arousal and reactivity (e.g., sleep disturbances; American Psychiatric Association, 2013). If not treated, this condition can develop into a chronic and severe mental illness (Kessler, 2000; Van Ameringen et al., 2008).

Tremendous resources have been invested into developing and testing EBTs for trauma-related mental health problems, mostly in Western countries. Trauma-focused cognitive-behavioral therapies (CBTs) have emerged as a gold standard in PTSD treatment (Foa, Keane, Friedman, & Cohen, 2009). Trauma-focused CBTs are defined as interventions that include a systematic focus on processing trauma memories. This collection of therapies has been recommended as front-line psychotherapy for PTSD across treatment guidelines (American Psychological Association, 2017; Centre for Posttraumatic Mental Health, 2013; Foa et al., 2009; National Institute for Health & Care Excellence, 2005). Widely researched trauma-focused CBT packages include cognitive processing therapy (CPT; Resick, Monson, & Chard, 2008), prolonged exposure (PE; Foa, Hembree, & Rothbaum, 2007), and trauma-focused CBT (TF-CBT; Cohen, Mannarino, & Deblinger, 2006), an intervention developed for children. These treatments are typically brief and manualized and can be implemented in group or individual formats (Foa et al., 2009). Consistent across the various trauma-focused CBTs, stimulus confrontation is included (Seidler & Wagner, 2006), and can be induced in vivo or imaginatively, and some include cognitive interventions aimed at reappraisal of traumatic events and targeting of problematic cognitions that are either reinforced or formed as a consequence of traumatization.

The issue of transporting EBTs to new cultural environments has emerged as particularly relevant in the area of trauma, given the rise in global efforts to provide disaster relief to cultures affected by trauma such as war and natural disaster. To address the global burden of PTSD and to help the thousands of trauma victims worldwide, trauma-focused CBTs have been implemented in non-Western cultures (where they were originally developed) and found to be efficacious (e.g., Asukai, Saito, Tsuruta, Kishimoto, & Nishikawa, 2010; Bolton et al., 2014). These interventions have been applied to diverse cultures outside of (e.g., Asukai et al., 2010) and within North America (e.g., Goodkind, Lanoue, & Milford, 2010). Although trauma-focused CBTs have been widely implemented in cultures other than the ones in which they were developed, the application of therapies to cultures outside of the ones in which they were developed raises a number of important questions. There is an ongoing tension between the need to tailor EBTs to the ideographic culture of a specific population, and the need to maintain a systematic, structured approach that adheres to the therapy protocol to implement evidence-based interventions (Bernal, Jiménez-Chafey, & Domenech-Rodríguez, 2009). Therefore, one of the most pertinent questions that arise in

treating PTSD across cultures is how adaptations to the EBT can be made to render the therapy culturally appropriate for the new setting, while maintaining fidelity to the therapy protocol shown to be efficacious. The current paper is a systematic review of the literature on the application of trauma-focused CBTs to diverse cultural settings to understand the process of how these therapies are being applied cross-culturally at present. It provides information on potential strengths and areas of further growth in this important field of clinical research.

2 | CULTURAL ADAPTATIONS OF PSYCHOTHERAPIES

Cultural adaptation of psychotherapy is defined as "… the systematic modification of an EBT or intervention protocol to consider language, culture, and context in such a way that it is compatible with the client's cultural patterns, meanings and values" (Bernal et al., 2009, p. 362). Of note, cultural adaptations are distinguished from cultural competence, a term that relates to the provider's characteristics (Bernal et al., 2009).

Research (e.g. Bernal et al., 2009; Griner & Smith, 2006) and recent meta-analyses (e.g., McMullen, O'Callaghan, Shannon, Black, & Eakin, 2013) suggest that culturally adapted psychotherapy is associated with better outcomes for ethnic and racial minorities living in Western societies compared with conventional psychotherapy, but the decision about how to culturally adapt trauma-focused interventions is consistently debated (see Bernal et al., 2009). For example, some researchers emphasize the limited evidence that supports the efficacy of EBTs with minority populations (e.g., Cardemil, Reivich, & Seligman, 2002; Weersing & Weisz, 2002) and others argue that adapting EBTs may compromise the fidelity and effectiveness of the interventions (Bernal et al., 2009). This approach calls for the development of "tailor made" interventions specifically fit to the local cultural environment. Moreover, researchers transporting trauma-focused CBTs have had varying levels and definitions of cultural adaptations. For example, Asukai et al. (2010) described the efficacy of implementing PE therapy for Japanese clients, but the only cultural adaptation made was translation of the relevant materials. Alternatively, some researchers emphasize the need for broader cross-cultural adjustments. For example, Whealin et al. (2017) presented positive therapeutic outcomes of a combination of TF-CBT with a Pacific Island holistic approach to health care, that emphasized wellness of mind, body, and spirituality, provided for Korean War veterans.

There is scant literature outlining the process of when and how to implement and adapt trauma-focused CBTs to meet the needs of individuals with PTSD in different cultures, rendering the decision about whether to change elements of the original therapy or not an open question for researchers and clinicians to explore (e.g., Bernal et al., 2009). Thus far there have been no studies that have critically reviewed the literature on if or how trauma-focused CBTs have been culturally adapted, and how researchers determined whether specific cultural adaptations were necessary. Systematic understanding of how cultural adaptations are made and the considerations that led researchers and clinicians to make these adaptations to original therapies could help future decision-making regarding adaptation processes and might support successful implementation and research of such therapies in the future.

3 | FRAMEWORKS OF CULTURAL ADAPTATIONS

Although no specific framework exists with regard to cultural adaptations of trauma-focused CBTs, several frameworks for culturally adapting psychotherapies more generally have been used to guide this process (Gonzalez Castro, Barrera, & Holleran Steiker, 2010). These frameworks are aimed to facilitate a systematic, data-driven process for researchers to determine if an EBT should be adapted, how it should be adapted, and how to examine the effect of the adaptations on outcomes (Gonzalez Castro et al., 2010). These frameworks are also intended to ensure that adaptation processes are well-documented and replicable.

Existing frameworks can be organized based on "bottom-up" (Hwang, 2009) or "top-down" approaches (Bernal, Bonilla, & Bellido, 1995; Domenech-Rodriguez & Wieling, 2004; Hwang, 2006) to cultural adaptations. Top-down approaches include the psychotherapy adaptation and modification framework proposed by Hwang (2006) and the

ecological validity model (Bernal et al., 1995) and its expansions (Domenech-Rodriguez & Wieling, 2004). These approaches suggest specific dimensions of interventions (e.g., language, metaphors, content, concepts, goals, methods, context) that could be considered when determining cultural adaptations for specific groups. These are considered to be theoretically driven approaches. In contrast, bottom-up approaches are data-driven and aim to understand whether there is a good or poor fit between the EBT and the community, and whether cultural adaptations are necessary to some or all aspects of that therapy (Lau, 2006). Across the different bottom-up approaches, there is widespread agreement that adaptations should be systematic, documented, and tested, and should follow one of the theoretically grounded stage models (see Gonzalez Castro et al., 2010 for an overview).

The most common frameworks for bottom-up adaptations of psychotherapy to a new cultural setting follow a stage model. Although several slightly different stage models have been proposed, most of them involve an initial step of information gathering to determine the needs and concerns of the specific community. During this phase, the clinicians and/or researchers determine whether there are existing treatments to address the specific cultural needs of the community, and the types of adaptations that may be necessary (Barrera & Gonzalez-Castro, 2006; Gonzalez Castro et al., 2010; Hwang, 2009). It is recommended that this stage involve engagement with key stakeholders in the local community (e.g., local therapists/healthcare providers, consumers, religious leaders, teachers), literature reviews, and quantitative surveys to assess characteristics and preferences of potential participants, and qualitative interviews with experts and potential participants who have already gained experience within the targeted culture (Barrera & Gonzalez-Castro, 2006). Across all frameworks, it is within the information gathering stage where decisions are made as to whether cultural adaptations are warranted. Again, there are slight variations across the cultural adaptations frameworks, but the subsequent stages typically involve training of local therapists, preliminary tests of the intervention and adaptations, and adaptation refinements (see Gonzalez Castro et al., 2010 for review of different models).

An important consideration within these frameworks is determining the need for cultural adaptations. Following their experience in adaptation of a Western EBT to a non-Western culture, Domenech-Rodriguez, Baumann and Schwartz (2009) suggested eight main domains, which clinicians and researchers should examine within therapies while considering the need for cultural adaptations for an established therapeutic protocol. These include language (translation of the materials to the local language); persons (identifying which culture and/or subculture the therapy will be targeted toward); metaphors (adding, replacing, or modifying metaphors of the therapy to enhance communication between therapists and consumers of the intervention); content (modifying the content of the therapy to cultural values and norms of the culture/subculture); concept (reaching consensus about how problems will be conceptualized and possible, culturally appropriate ways of coping with them); goals (addressing therapy goals in a culturally competent manner); methods (modifying the methods of evaluating the therapy, such as symptom change); and context (relating to broader aspects of the therapeutic intervention, including relations among family/friends and issues of stigma). Considering possible alterations in light of such a framework is thought to enhance the cultural appropriateness of the intervention. This step is suggested as a preliminary stage, before deciding upon specific adaptations that will be further evaluated according to a data-driven stage model.

Within the aforementioned frameworks, the types of cultural adaptations that can be made broadly fall along two dimensions (Resnicow, Soler, Braithwaite, Ahluwalia, & Butler, 2000): surface structure adaptations and deep structure adaptations. Surface structure adaptations are changes made to an original EBT's materials or activities that are observable, and made to superficial aspects of a specific culture, such as language. Deep structure adaptations involve incorporating the cultural, social, historical, environmental, and psychological factors that influence the health behaviors of members of a targeted population. Although surface adaptations, such as language translations, are often necessary when transporting therapies to a different culture, determining when deep adaptations are warranted and necessary, remains an important question for researchers. Deep structural changes have the potential to fundamentally change the nature and active ingredients of intervention, including case conceptualization and session structure.

Although these comprehensive frameworks exist, it remains unclear whether researchers follow them when transporting EBTs. Information on whether these frameworks were followed is important to understand the need for the specific adaptations, and determine whether researchers gave the best possible solution for that need. This way, knowledge can accumulate and inform future decisions regarding whether other processes should be implemented to improve the application of interventions cross-culturally.

4 | AIMS

The current study systematically reviewed studies whereby trauma-focused CBTs have been implemented in cultures outside of the ones in which they were developed, and cultural adaptations have been considered or implemented. Specifically, this paper aimed to review the processes researchers have used to determine if cultural adaptations are necessary, and if so, which adaptations were made. The methods described in these papers where therapies were implemented outside of their culture of origin were compared to the theoretical models (e.g., Barrera & Gonzalez-Castro, 2006; Lau, 2006; Wingood & DiClemente, 2008) proposed in Gonzalez Castro et al. (2010). The following specific research questions were explored: (a) How was the need for cultural adaptations determined?; (b) What were the stages of adapting the trauma-focused therapies to the new culture? Was the process of cultural adaptation theoretically or data-driven?; (c) What adaptations were made and were these surface or deep level adaptations?; (d) Was there empirical evidence to support the therapy adaptation? Of note, the current review was not aimed at examining the efficacy of culturally adapted trauma-focused therapies but rather focused on the process of how the therapy was adapted.

5 | METHOD

5.1 | Procedure and data sources

A systematic literature search was conducted using keywords in MEDLINE/Pubmed (1966–2019) and PsycINFO (1887–2019). These are the default years for the search engines and to ensure inclusivity of all possible literature, these default dates were not changed. Of note, the searches only yielded studies published after 1980. These two databases were also chosen because cumulatively they cover the scope of clinical intervention research (>30 million citations cumulatively between these databases; Falagas, Pitsouni, Malietzis, & Pappas, 2008) and preliminary searches in other databases (e.g., SCOPUS) did not yield novel citations not already included in these two databases. The following search terms were entered into the "all text" search box: ("Trauma-focused" OR "Trauma-focused therapy" OR "Trauma therapy" OR "trauma-focused cognitive) AND ("Post-traumatic stress disorder" OR "PTSD" OR "Posttraumatic stress disorder" OR "Posttraumatic stress") AND ("Cultural adaptation" OR "Culture specific" OR "Culture adaptation" OR "Adaptation" Or "Culturally adapted treatment" OR "Culturally adapted therapy"). In addition to the computer search, manual searches were performed using reference lists from all included and relevant papers. A forward search was also conducted whereby studies that cited the studies included in this review were searched for relevance for inclusion.

5.2 | Selection criteria

All identified titles and abstracts were screened and reviewed for relevance by two authors (NE and SS). When there were disagreements about whether to include a study, a third author (RD) was consulted and made a final decision (this only occurred with two papers). Peer-reviewed journal articles, book chapters, study registries, study

protocols, and dissertations were included to ensure comprehensive review of the literature. Studies that met the following inclusion criteria were included in the current review: (a) the intervention being culturally adapted or under consideration for cultural adaptation is trauma-focused (i.e., focuses on trauma memories and trauma reminders) and uses CBT techniques (e.g., cognitive interventions, behavioral exposures); (b) the specific culture for which the manual was adapted was specified; (c) at least one aspect of the process of transporting the therapy to the new culture was described (e.g., translating the manual into a new language, meetings with key stakeholders to determine possible cultural adaptations); and (d) the study focused on transporting and/or adapting a therapy manual. Studies could include participants of any age (e.g., children and/or adults).

Studies were excluded if cultural adaptations to therapy were discussed in general, but adaptations to a specific trauma-focused manual were not outlined (i.e., papers that referred to CBT in general). Similarly, if the cultural adaptations made to a certain therapy were outlined, but the process of how the adaptations were decided upon or determined as appropriate were not included in the study, the study was excluded from the current review. In addition, studies were excluded if only the process of adapting or translating assessment measures was described but cultural adaptations to a therapy manual were not discussed. The purpose of this paper was to review cultural adaptations to a therapy geared toward a specific culture, rather than idiographic characteristics. Thus, case studies were also excluded because it would be difficult to parse out if the adaptations made to therapy with one individual were idiographic adaptations or cultural adaptations to the therapy that can be considered nomothetic. Finally, studies that describe developing new interventions for a specific culture were excluded even if they were developed based on principles of former EBTs, as they are not dealing with the process of culturally adapting a pre-existing therapy manual.

5.3 | Data extraction

After screening for relevance, full papers were examined. Three coders (two of them PhD Level researchers [Shorer, Shoval-Zuckerman], and one, a PhD Candidate [Ennis]) analyzed the papers, using an online Microsoft Excel form to share their outcomes and findings. Each paper was reviewed by two of the above listed coders (Ennis, Shorer, Shoval-Zuckerman). Data on the characteristics of the study and intervention being transported to a new culture (e.g., type of therapy, description of therapy) were extracted, including the population for whom the therapy was adapted. To determine whether adaptations fell in line with recommendations from the prominent stage models (e.g., Barrera & Gonzalez-Castro, 2006; Wingood & DiClemente, 2008), data on the following aspects were extracted: Who were the stakeholders or groups involved in the cultural transportation and adaptation process? How did stakeholders determine whether cultural adaptations were necessary? What were the steps involved in the process of adapting the intervention? Was there training for local professionals? Was the efficacy of the initial adaptations tested and what were the findings? Were the adaptations further refined, based on testing? Were the changes surface or deep cultural adaptations? (See Table 1). If multiple articles were based on the same study, only the ones that described the adaptation process were included.

Data synthesis (Lisy & Porritt, 2016) was used to construct the major theoretical themes that stem from the data. The first three authors used multi-perspective triangulation (Flick, 1992) to ensure a comprehensive and thorough understanding of the materials and the trends was achieved. Specifically, two authors independently extracted data from each paper. After coding the articles (as described above), the three coders conducted axial coding between the findings (Patton, 2015), in which significant relationships between the parameters pertaining to the cross-cultural adaptations of evidence-based treatments were sought. For example, by comparing the findings, we looked for contradictions, or complementary ideas between the different articles. This led to grouping of findings into meaning units, or "themes." This process was done while moving back and forth between the data, proposing theoretical conceptualizations and refining them in light of the rest of the findings (Flick, 1992; Lisy & Porritt, 2016). Once obtained, the main themes were presented to the rest of the research team, who critically

TABLE 1 Description of cultural adaptation processes in included studies

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/ Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
Asukai et al. (2010)	PE; Japan	14	Conducted RCT on efficacy of Western version of PE [a]	Therapists	RCT of Western version of PE translated to Japanese[a]	Surface	Language translation	Yes; PE was associated with significantly greater reductions than treatment as usual and were maintained at \12-month follow-up	NA
Bass et al. (2013)	CPT (cognitive version); DRC	20	NR	NR	NR	Surface	Assignments completed orally, and materials simplified	Yes; CPT was associated with reductions in PTSD compared with individual support alone and were maintained at the 6-month follow-up	Yes
Bigfoot and Schmidt (2010)	TF-CBT; American Indians/Alaska Natives tribal communities in Oklahoma area, United States	9	Review of research data and partnered with key stakeholders	Tribal leaders, consumers, traditional helpers and healers, local programs	Engagement and negotiation with local stakeholders regarding intervention	Deep & surface	Added spiritual component to case conceptualization; adapted way relationships are interpreted, and narratives are shared; addition of local phrases;	NR	NR

(Continues)

TABLE 1 (Continued)

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/ Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
							teaching basic cultural concepts to therapists		Yes
Damra et al. (2014)	TF-CBT; Jordan	20	Literature reviews, meetings with stakeholders, and trial of the adapted version	Mainstream mental health care providers and clients	Manual translation; Selection of TF-CBT manual by expert reviewers; TF-CBT revisions sheet preparation; meeting with reviewers; counselor training and supervision according to adapted version; trial of TF-CBT; evaluation and assessment with children, counselors and parents	Deep & surface	Length of treatment sessions; the number of sessions spent on each component; activities suitable for each component's goal; added parenting skills education	Yes; Significant post treatment improvements for those receiving TF-CBT, both at end of treatment and at the 4 month follow-up	Yes
Goodkind et al. (2010)	Cognitive Behavioral Intervention for Trauma in Schools (CBITS); American Indians/Alaska	15	Review of former research data	Teachers, local community leaders, and health care providers	Researchers suggested intervention to local stakeholders and organizations. After a long negotiation, suggested the	Deep & surface	Changed trauma conceptualization model to include local spiritual approach; enlarged number of sessions, added meetings with teachers &	Yes; Significant decreases in PTSD symptoms at the 3-month follow-up, symptoms returned to	No

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TABLE 1 (Continued)

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
	Natives in the New Mexico area				cultural adaptations		parents; adapted materials and measures to suite local language and understanding	baseline by 6-month follow-up	
Kaysen et al. (2013)	CPT; Northern Iraq (Kurdistan)	6	U.S. therapists edited existing CPT materials and manual to use lay language and simplify terms and phrases. Simplified materials were reviewed by the research team, translated into Kurdish and reviewed by Kurdish collaborators and mental health providers for their content and cultural appropriateness. In training process, feedback was elicited from	Community mental health workers; trainers from the US where CPT was developed; physicians or masters level clinicians from Kurdistan trained to provide supervision to local providers; therapists with little or no training in cognitive behavioral or manualized treatments; clients	Iterative process involving translations from US developers, review from Kurdish experts, training in the therapy and feedback from trainees, pilot testing with community mental health workers and clinical supervisor; and continuous feedback from therapists and supervisors during the clinical trial. Based on this feedback, final set of materials was	Deep & surface	Materials and language simplified, emphasis on PTSD theory decreased, added relevant clinical case examples and modifications to homework for non-literate clients. Themes of two of the final sessions were modified and adaptations to supervision and supervisor training were made	Yes; CPT associated with improvement in PTSD symptoms	Yes

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TABLE 1 (Continued)

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/ Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
			Kurdish trainees on aspects to adapt		prepared and is being used in ongoing mental health care				
Lane et al. (2016)	Narrative trauma; Haiti	7	NR	NR	Provided the therapy to lay counsellors who were supposed to provide it to a wider population once their own treatment and training was complete	Deep & surface	Shorter length of therapy; specific interventions. and trauma conceptualization culturally adapted	Yes; PTSD severity and frequency of symptoms significantly decreased between pre- and posttreatment	NA
McMullen et al. (2013)	TF-CBT; DRC	27	Focus groups for translation and local facilitators evaluated need for adaptations when delivering the therapy through an RCT[a]	Congolese facilitators and local NGO staff	Through RCT (adapted during RCT by local facilitators). Daily training and evaluation with the facilitators to allow for modification of the program within the existing structure. Modifications were combined with the	Deep & surface	Included culturally appropriate examples, language, and analogies, and added sessions for available parents. Trauma narratives completion time adapted to avoid vicarious traumatization	Yes; TF-CBT was associated with significant reductions in PTSD symptoms. and were maintained at 3-month follow-up	No

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TABLE 1 (Continued)

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/ Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
					translation of the manual into French				
Murray et al. (2013)	TF-CBT; Zambia	14	Changes that local counsellors made in the delivery (feasibility study)	Counsellors who delivered the intervention	Followed a community-based participatory research approach involving focus groups with the community and stakeholders and feedback loops to choose interventions to address abuse and neglect, and what was available and used in Zambia	Surface	Language, examples, activities, and analogies	Yes; Decrease in self-reported symptoms at posttreatment	No
O'Callaghan et al. (2013)	TF-CBT; DRC	23	Intervention facilitators met with the researchers daily pre and post intervention to discuss adaptations	Therapists	Daily preintervention and postintervention meetings with the facilitators and lead authors to raise questions or suggest adaptations	Deep & surface	Having female facilitator talk about ways to reduce risk of sexual violence, use of culturally familiar games, songs, and examples, and social workers	Yes; TF-CBT group was associated with significant reductions in trauma symptoms with large effect sizes at the	Yes

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TABLE 1 (Continued)

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
							visited the girl's guardians to re-establish contact, reduce stigma, and foster family acceptance. Trauma narratives were done individually	3-month follow-up	
O'Donnell et al. (2014)	TF-CBT – Group; Urban Tanzanian Children	17	Two focus groups by a U.S.-based qualitative interviewer & a Kiswahili translator (one group of parents & professionals, one group of adolescents from the studied community	Local adolescents, and professionals from service organizations, faith-based groups, and HIV/AIDS treatment groups.	Focus groups with local stakeholders and adolescents to determine and make adaptations, followed by feasibility and outcome study	Surface	Three individual sessions were added to help develop trauma narrative; integrated local examples and analogies	Yes; Improved scores on all outcomes (grief symptoms, posttraumatic stress) at post treatment, 3- and 12-month follow-ups	Not needed
Rodriguez (2011)	CPT; Women who are immigrants from Mexico in New York City	19	Consultation with the treatment developer and a pilot study	NR	NR	Surface	Materials translated to Spanish; Less educated participants were allowed to write one-word answers and draw thoughts and feelings	Yes; Attempt was made to determined efficacy but due to barriers with the treatment could not be explored	Yes

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TABLE 1 (Continued)

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/ Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
Schottelkorb et al. (2012)	Child-centered play therapy (CCPT) & TF-CBT; Refugees in the US (general refugee populations, no specific culture)	16	NR	NR	RCT of two psychotherapies provided for children refugees[a]	Surface	Translation when needed, added traditional dolls to play therapy room, tailored psychoeducation to refugee children	No	Not needed
Schulz et al. (2006)	CPT; Bosnian refugees	2	Examples based on clinician experience with treatment but no information about how clinicians decided upon adaptations	Clinicians who delivered the intervention	Translations of materials and feasibility study, as well as checking the need for interpreters in CPT for Bosnian refugees	Deep and surface	Added relaxation and stress management techniques; trauma account was oral; trauma account delayed until after relaxation techniques were learned, and did not typically start with the worst trauma; clients engaged in in vivo exposure; use of interpreters	Yes; Results demonstrated that CPT was highly effective in both settings (with and without interpreters' help)	No
Valentine et al. (2017)	CPT; Latinos in the US	14	Based on review of local clinic data, semi-structured interviews with providers in community health	Clinicians from the community	Followed Barrera et al.'s (2013) stage model: 1) researchers studied the needs of the	Surface	Language, examples, and some homework assignments	Yes; Qualitative evaluation was made. Findings supported the need for cross-cultural	Yes

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TABLE 1 (Continued)

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/ Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
			centers, and review of the literature		community 2) translated the manual, 3) pilot tested the translated manual; 4) developed new manual based on data from pilot testing; 5) pilot tested adapted version			refinement of the protocol	
Whealin et al. (2017)	Reaching out to Educate and Assist Caring, Healthy Families; Veterans in the Pacific Island	11	Literature reviews, focus group and survey data to assess unique needs of the culture	Clients, members of the client's cultural community, and clinicians experienced in working with the clients	Assessment, selection, preparation, and pilot according to "Map of the adaptation process five stage model" (McKleroy et al., 2006)	Deep & surface	Incorporated elements of Pacific Island holistic approach to health care including more collectivistic orientation; incorporated communication style of "talk story" and placed more time on this technique; simplified language and modified "fun" activities; therapists did more self-disclosure	Yes; PTSD symptoms assessment was not reported. Relationship quality scores and family caregiver burden scores significantly improved post intervention	In future paper

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TABLE 1 (Continued)

Study	Original psychotherapy; culture/setting in which therapy was implemented	Quality rating	How did the researchers decide adaptations were needed?	Stakeholders involved	Process description	Surface/ Deep adaptation	Aspects of therapy adapted	Was efficacy of adapted version tested? Findings	Adaptation refinement
Wang et al. (2016)	My Trauma Recovery (MTR); Urban and rural Chinese adults	19	By testing for the efficacy of the treatment	None	Translation of protocol with only minimal changes of language and pictures. Provided some minimal help for rural users who were not familiar with internet use. Tested efficacy	Surface	Translation, some pictures were changed	Yes; Outcomes were assessed for each treatment module and findings varied based on module	No

Abbreviations: CPT, cognitive processing therapy; DRC, Democratic Republic of Congo; NA, not applicable; NR, not reported; PE, prolonged exposure therapy; RCT, randomized controlled trial.

[a]RCTs conducted with original, non-adapted manuals (only language adaptations). The RCTs compared the non-adapted versions of the interventions to other controls.

reviewed them and added their perspectives. Agreements were reached through thoroughly discussing the relevant issues, and there were no significant disagreements between the team members, who are the authors of the current paper. The main meaning units presented in the current paper are the key ideas that link these findings together.

For the purposes of this review, cultural adaptation was defined as adapting a therapy manual (i.e., did not include cases where clinicians were trained in cultural competence so that they could tailor a manual to clients) and culture refers to "a unique meaning and information system, shared by a group and transmitted across generations, that allows the group to meet basic needs of survival, purpose, happiness and well-being, and derive meaning from life" (Matsumoto, & Juang, 2016; p. 8). There was no limitation for how distinct cultures were from the original culture in which the intervention was developed. Surface adaptations were defined as changes made to an original EBT's materials or activities that were observable and made to superficial aspects of a specific culture (e.g., metaphors). Deep structure adaptations were defined as those addressing cultural, social, historical, environmental, and psychological factors that could influence the target population's mental health outcomes. Key stakeholders were defined as any groups or individuals who had an interest, knowledge, experience, or role related to the culture and/or therapy being adapted who were consulted or included in the adaptation process.

5.4 | Quality assessment

Each article was evaluated for methodological quality according to the Downs and Black (1998) Checklist. Two authors were assigned to review each of the articles and the included papers were evenly assigned to all authors. Any discrepancies were resolved by a third reviewer (another author). The checklist consists of 27 items that fall into five subscales (reporting, external validity, bias, confounding, and power). Items on the checklist are scored 0 or 1 except for the item related to statistical power (in the original version this item is scored from 0 to 5). A modified scoring system (see Trac et al., 2016) was used to evaluate whether power was calculated a priori (0 = no; 1 = yes). According to this scale, a study can achieve a total score of 28, with higher scores indicating better quality. Scores can be interpreted as follows: excellent (25–28), good (20–25), fair (15–19), poor (≤14). The Downs and Black Checklist has good test–retest reliability ($r = .88$), interrater reliability ($r = .75$), and internal consistency (Kruder–Richardson Formula 20 = .89; Downs & Black, 1998).

6 | RESULTS

Databases searches yielded a total of 3,312 articles and reviews of reference lists of relevant papers yielded an additional 44 articles (see Figure 1). Of these, 152 abstracts were screened and after abstract screening, 108 full text articles were reviewed (i.e., 44 articles were excluded at the abstract level). Out of these, 17 studies met criteria for inclusion. The most common reasons for exclusion were either that there was no cultural adaptation process at all (in other words, the original protocol was used for treatment of the new population), or the authors stated that a culturally adapted version of the intervention was used, but the process of how the manual was adapted was not described.

The included studies presented a variety of CBTs that were implemented outside of their country or culture of origin: seven studies presented implementation of TF-CBT, five described cultural adaptations of CPT, and others presented cultural adaptations of PE, and variations of cognitive-behavioral interventions and narrative model therapy. Quality of the articles according to the Downs and Black Checklist ranged from 1 to 27. The mean of quality ratings was 14.88 ($SD = 6.44$), indicating that on average studies were of poor to fair quality. There was 95% agreement between raters on the Downs and Black Checklist. The cultures in which the therapies were applied varied and included different cultural groups within the same country where the therapy was developed
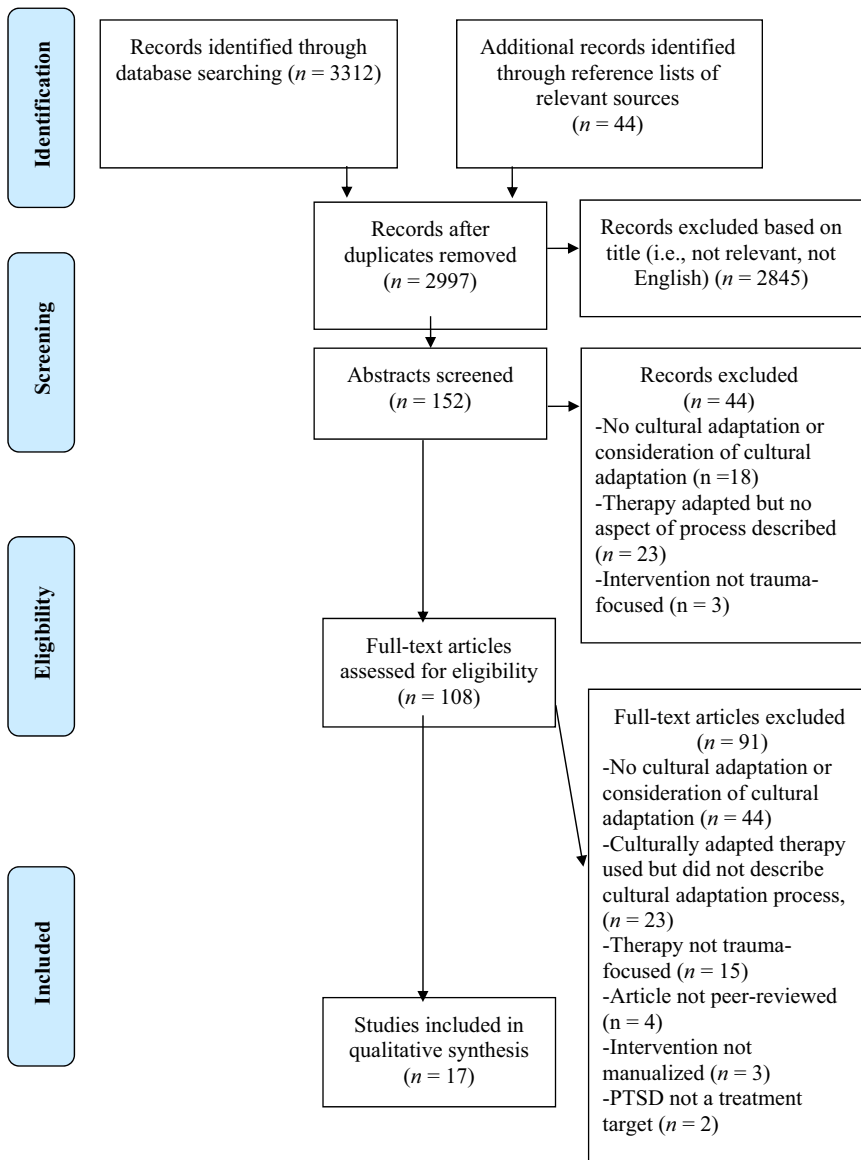
FIGURE 1 Flow diagram of literature search [Color figure can be viewed at wileyonlinelibrary.com]

(e.g., Goodkind et al., 2010) and also different cultural groups in different countries from the therapy's country of origin (e.g., Damra, Nasser, & Ghabri, 2014). Findings from the included articles are further summarized according to the above outlined steps and the five stages model of adaptation, as presented in Table 1.

6.1 | How was the need for cultural adaptations determined?

To understand whether cultural adaptations are necessary to an intervention, researchers (e.g., Barrera & Gonzalez-Castro, 2006; Lau, 2006) recommend the use of data-driven techniques such as literature searches, qualitative interviews with key stakeholders in the community, and quantitative data (e.g., surveys). In three papers

(Bass et al., 2013; Lane, Myers, Hill, & Lane, 2016; Schottelkorb, Doumas, & Garcia, 2012), the process of determining if cultural adaptations were necessary was not described. In eight papers, researchers (Asukai et al., 2010; McMullen et al., 2013; Murray et al., 2013; O'Callaghan, McMullen, Shannon, Rafferty, & Black, 2013; Schulz, Huber, & Resick, 2006; Wang, Wang, & Maercker, 2016) conducted trials of the treatments to determine adaptations. Four of these trials (McMullen et al., 2013; Murray et al., 2013; O'Callaghan et al., 2013; Rodriguez, 2011; Schulz et al., 2006) involved the local therapists learning the interventions and evaluating the need for adaptation based on their ongoing delivery of the intervention. In two of these papers (Asukai et al., 2010; Wang et al., 2016), the efficacy of the original intervention was tested. Using data obtained from that intervention, the researchers determined that surface or no adaptations were needed. In one study (Goodkind et al., 2010), the authors stated that cultural adaptations were solely determined based on prior literature.

In summary, studies of cultural adaptations used varying methods to determine whether adaptations were necessary, with a majority focusing on data-driven techniques (i.e., collecting data to determine necessary adaptations, asking local therapists delivering the treatment about their considerations).

6.2 | Stakeholders involved in adaptation process

Community stakeholders were described as involved in the adaptation process in eight papers (Bigfoot & Schmidt, 2010; Damra et al., 2014; Kaysen et al., 2013; O'Donnell et al., 2014; Rodriguez, 2011; Schulz et al., 2006; Valentine et al., 2017; Whealin et al., 2017). These steps included the use of focus groups, qualitative interviews, and translation processes before recommending adaptations to the identified intervention.

Regarding consultation with stakeholders, the stakeholders mentioned as involved in the adaptation process were most commonly local therapists delivering the treatment (Asukai et al., 2010; McMullen et al., 2013; Murray et al., 2013; O'Callaghan et al., 2013; Rodriguez, 2011; Schulz et al., 2006; Valentine et al., 2017), or other counsellors from the community (e.g., professionals from service organizations; tribal leaders, school teachers; Bigfoot & Schmidt, 2010; Damra et al., 2014; Goodkind et al., 2010; Kaysen et al., 2013; O'Donnell et al., 2014; Whealin et al., 2017). In four studies, the adaptation process included consultation with consumers of the treatment (e.g. Bigfoot & Schmidt, 2010; Damra et al., 2014; O'Donnell et al., 2014; Whealin et al., 2017).

Four studies did not report whether stakeholders were involved in the adaptation process at all (Bass et al., 2013; Lane et al., 2016; Schottelkorb et al., 2012; Wang et al., 2016). Therefore, where reported, the most common involvement of stakeholders appears to be local therapists or counsellors with fewer studies engaging consumers. In all but one study (Schottelkorb et al., 2012), training was provided for local professionals.

6.3 | Adaptation processes

Six studies (Damra et al., 2014; Kaysen et al., 2013; Murray et al., 2013; O'Donnell et al., 2014; Valentine et al., 2017; Whealin et al., 2017) described iterative processes of adapting the therapy that included manual translation, meetings with key stakeholders, training of local therapists, and pilot testing of the adapted interventions followed by evaluation by the treatment stakeholders. Schulz et al. (2006) described a process with fewer steps that involved translation of the materials and a feasibility study. Rodriguez (2011) indicated that cultural adaptations in their study were based on Schulz's work and consultation with the treatment developer. In three studies (Lane et al., 2016; Schottelkorb et al., 2012; Wang et al., 2016), the process involved treatment trials, and researchers determined whether therapies needed to be adapted according to the outcome data of these preliminary trials. However, these studies do not mention whether there was regular consultation regarding adaptations with the trial therapists. In contrast, McMullen et al. (2013) and O'Callaghan et al. (2013) described that the process consisted solely of intervention testing, while the interventions were adapted by gathering regular feedback from the

therapists who were delivering them. Similarly, Asukai et al. (2010) processes consisted of conducting a randomized controlled trial (RCT) of a Western version of PE to trauma-exposed individuals in Japan and the only adaptation made before the trial was translating the manual. No further adaptations were made following the trial.

In two studies (Bigfoot & Schmidt, 2010; Goodkind et al., 2010), the process consisted of collaborations and negotiations with local stakeholders to adapt the interventions. No testing of the intervention was described in these papers.

In summary, 14 studies appeared to follow a bottom-up stage model (data-driven). Two studies relied on consultations with local collaborators rather than a stage model, and in one study (Bass et al., 2013), the process was not reported.

6.4 | Adaptations made to therapies

Nine studies described implementing deep structure cultural adaptations to the psychological interventions that included modifying the content of the intervention to reflect cultural values. For example, some researchers made changes in the conceptualization of trauma's effects (e.g., added spiritual approach to trauma conceptualization; Bigfoot & Schmidt, 2010; Goodkind et al., 2010), and added new content to sessions (Bigfoot & Schmidt, 2010; Goodkind et al., 2010; Kaysen et al., 2013; Lane et al., 2016; Whealin et al., 2017). Other researchers described adding additional sessions with family members (Damra et al., 2014; Goodkind et al., 2010; McMullen et al., 2013), and adaptations related to the therapist, such as greater therapist self-disclosure (Whealin et al., 2017), increased visits with participants (O'Callaghan et al., 2013), and changes to the process of supervision and supervisor training (Kaysen et al., 2013). Other adaptations included adding techniques or interventions that were observably in line with the culture (e.g., relaxation techniques; Schulz et al., 2006). The eight studies that described surface level cultural adaptations only included language translations, simplification or tailoring of materials and language (Bass et al., 2013; Rodriguez, 2011; Schottelkorb et al., 2012; Schulz et al., 2006; Valentine et al., 2017), changes in analogies (Murray et al., 2013; O'Donnell et al., 2014) and in visual materials (Wang et al., 2016).

7 | EFFICACY OF ADAPTED INTERVENTIONS

In 15 of the studies, the efficacy of the adapted version of treatment was evaluated. Evaluation methods varied greatly, with some studies conducting RCTs (e.g., Asukai et al., 2010), and others applying single group design, pretreatment and posttreatment assessments that did not control for potentially confounding factors, such as the time spent with the therapist (e.g., Lane et al., 2016). Length of follow-up time and other characteristics of research methods (e.g., sample size, blinded assessors, assessment measure quality) also varied greatly. Overall, improvements favouring the adapted intervention were noted in 14 of the studies (Asukai et al., 2010; Bass et al., 2013; Damra et al., 2014; Goodkind et al., 2010; Kaysen et al., 2013; Lane et al., 2016; McMullen et al., 2013; Murray et al., 2013; O'Callaghan et al., 2013; O'Donnell et al., 2014; Schulz et al., 2006; Valentine et al., 2017; Wang et al., 2016; Whealin et al., 2017) and the efficacy of treatment did not seem to vary based on the stage model or process used. In one study (Rodriguez, 2011), efficacy could not adequately be tested because of problems with participant recruitment and retainment.

8 | DISCUSSION

This study systematically reviewed research articles that describe the processes used to adapt trauma-focused CBTs to cultures outside of the ones in which they were developed. Seventeen studies that described aspects of

this adaptation process were identified. This is a considerably small number of papers, given the increasing popularity of applying EBTs cross-culturally. Therefore, this review is somewhat atypical and mainly allows for conclusions regarding the lack of knowledge in this area. The amount of information provided on the cultural adaptation processes varied widely across studies, with some offering only minimal description, and others describing comprehensive, multi-stage processes (e.g., Damra et al., 2014; Valentine et al., 2017; Whealin et al., 2017). Similarly, the study quality and comprehensiveness of the processes varied greatly across studies. In studies where effectiveness of the adapted interventions was explored, outcomes appeared positive. However, there was a great deal of variance across the study methodologies and quality. This review underscores that more research is necessary on the process of cultural adaptations of trauma-focused CBTs.

Although some studies used multiple sources of information to determine whether adaptations were necessary (e.g., surveys, focus groups, literature reviews), in other studies, adaptations were determined based on participating therapists' clinical judgment (e.g. McMullen et al., 2013). Thus, our findings reflect the complexity of cross-cultural adaptation of psychotherapy. As some studies present clinical benefits of minor, surface adaptations (e.g. Valentine et al., 2017; Wang et al., 2016), others present deeper changes to the original protocol (e.g. Goodkind et al., 2010; Kaysen et al., 2013; Whealin et al., 2017) that seemed to turn the adapted version into an almost new therapy, shaped in the spirit of the original one. As some protocols are more culturally sensitive than others, it is interesting to note that we cannot conclude a major trend of changes in the more culturally "rigid" protocols. For example, some major changes in CPT were described (Kaysen et al., 2013), as well as in TF-CBT (Bigfoot & Schmidt, 2010), which is a more culturally sensitive protocol. Moreover, the cultures where the therapies were applied ranged in terms of how distinct they were from the original culture in which the therapy was developed. It is possible that there may be differences in adaptation processes based on the magnitude of difference between the cultures. To determine if the magnitude of difference influences the adaptation process, future researchers could measure cultural similarity.

Given that there is a lack of RCT research in this field, we cannot conclude on the necessity or benefits of each approach to deciding on whether adaptations were necessary. It seems that the task of choosing whether to make changes to an original protocol is often left for clinicians. As clinicians who make these decisions might vary in their knowledge, professional background, and attitudes toward EBTs, conclusions regarding a standard method for cultural adaptations used across the literature of trauma-focused CBTs are limited. Accordingly, this review highlights the need for future studies to pay greater attention to the decision-making process regarding cultural adaptations, and the importance of its documentation. This information is important for future researchers who plan to transport therapies to different cultural settings and can ultimately help to set a standard in the field for best practice in transporting and adapting EBTs. One of the main conclusions that can be drawn from this paper is that many researchers are not documenting these meaningful decisions in a way that sufficiently explains how adaptations to trauma-focused CBTs have been determined and tested.

An overarching objective of this study was to examine whether researchers followed stage models or other recommended strategies in adapting trauma-focused CBTs. We found only two studies that explicitly stated following a theoretically proposed framework for cultural adaptations (Valentine et al., 2017; Whealin et al., 2017). In other studies, it was unclear whether a guiding framework was used. This finding is potentially problematic for several reasons: When little information is provided about the way a therapy was adapted, or whether the steps were systematic, it is unclear whether the adaptations made to the therapy are warranted and whether they impact fidelity to the original protocol. This could translate to unnecessary changes to a protocol, or impact on the efficacy of the treatment.

Regarding the types of cultural adaptations, half of the reviewed studies reported making deep structural adaptations whereas the other half reported surface adaptations only. This finding is important in light of the lack of information provided in some studies regarding the considerations that led to the choice of specific adaptations. For example, Wang et al. (2016) reported that their decision-making process was based on testing of the efficacy of the treatment using quantitative measures. Yet, qualitative approaches to understanding whether there were positive changes in outcomes for participants may be particularly important in culturally adapted therapies because quantitative

measures may not be appropriate or valid in some cultural settings. Wang also included very little information about the adaptation process, and how they made decisions about adaptations. Perhaps if more systematic approaches were taken, the adaptations that were determined necessary may have differed and this could have potentially impacted the efficacy of treatment. However, given the lack of information, this remains an unanswered question.

Gonzalez Castro et al. (2010) raise the question of whether cultural adaptations that were determined and made through comprehensive processes such as stage models are more effective than those that stem from less systematic approaches. In the current review, a majority of the included studies conducted some form of quantitative analysis to determine whether the adapted intervention was associated with positive outcomes for participants. Each of these studies found positive outcomes favoring the adapted intervention and this finding did not seem to vary based on whether a stage model was followed. This could potentially suggest that following stage models does not seem to influence outcomes. However, we suggest a more nuanced interpretation. First, this finding should be interpreted with consideration of the variance in the methodology and quality of the included studies, and that most were not powered or intended to be efficacy studies. The purpose of the current review was not to determine efficacy of culturally adapted interventions but to provide researchers interested in cultural adaptations of trauma-focused treatments a comprehensive overview of the methods used in these field, and experiences of past research groups. Moreover, qualitative methods that provide richer understanding of feedback from users and service providers may be particularly important in this field given quantitative measures may not provide a full picture of outcomes and impacts of the therapy or may not even be valid in the culture in which they are applied. In future, if papers with more detailed descriptions of cultural adaptation processes are available, it will be important to examine whether following a theoretical stage model is associated with better client outcomes for adapted psychotherapies.

Researchers and clinicians widely agree that contextual and cultural factors are crucial when considering treatment approaches in the psychological aftermath of trauma (American Psychiatric Association, 2013; Nicolas, Wheatley, & Guillaume, 2015). Barrera and Gonzalez-Castro (2006) suggested that cultural adaptations are justified under certain specific conditions: if unique risk and resilience factors exist, in case of unique symptoms of a common disorder, or when a clinical intervention is provided for a particular subcultural group but turns out to be ineffective. In the current review, few studies actually documented following these suggested reasons for cultural adaptations. Consequently, in a majority of the reviewed studies, it seems that Western diagnosis of PTSD was used to treat members of non-Western cultures, without sufficiently considering the effects that the Western values reflected in mental health treatment might have on these clients (Drozdek, 2015; Nicolas et al., 2015). EBTs may also have a systematic structure that may not be in line with values of certain cultures, as was described in a few of the reviewed articles (e.g. Bigfoot & Schmidt, 2010; Goodkind et al., 2010). Moreover, individuals from non-Western cultures may not want to engage in Westernized therapies at all and this needs to be respected first and foremost before a therapy is even transported to a new setting. Again, these findings point to the importance of future studies to investigate the efficacy of adapted psychotherapies.

Given the lack of information on how and why adaptations were made across most of the reviewed articles, it is also unclear how much attention was paid to the differences between clients' cultural background, and the original therapy's basic assumptions regarding psychological and emotional interventions. This approach seems to reflect a "one size fits all" approach to trauma therapy, that has been questioned and criticized recently (Cloitre, 2015). This approach is based on the assumption that what was found to be helpful under certain conditions (usually, the conditions of the environment in which the clinical trial took place) will be efficacious for other conditions as well, and that facing the traumatic event by talking and sharing it with others may lead to symptom relief. This assumption might be inappropriate for many clients during different stages of their coping with posttraumatic aftermath (Nicolas et al., 2015), who find it impossible or inappropriate to verbally share their traumatic experiences. For example, Herman (1997) outlines three stages of trauma recovery and how individuals may be at different stages of readiness to work on their trauma. The first stage, stabilization, refers to the task of establishing safety both in terms of emotional and physical wellbeing (e.g., controlling substance use, control of emotions and thoughts) and one's external environment (e.g., living situation). The second stage, remembrance and mourning, involves telling one's story of their traumatic event(s) and

integrating those experiences into their broader life story with the overarching goal of processing the traumatic event (s). This integration inevitably contributes to grief, as the individual mourns the losses and feels the pain associated with their trauma(s). When the trauma(s) have been processed and the individual has mourned the associated traumatic losses, the tasks are to rebuild life in the present and plan for the future. The third stage, reconnection with ordinary life, refers to these tasks that include rebuilding relationships and forming new ones, and returning to pursuing one's aspirations or developing new ones. These stages are not linear. Some individuals may remain at the stabilization stage rather than moving through to processing and reconnection while some may move back and forth between the stages. An individual's progression through these stages can vary based on individual and cultural factors (Herman, 1997). Thus, it is possible that some individuals from some cultures may not benefit from the approaches used in Westernized EBTs for PTSD depending on their stage of trauma recovery. However, that remains a question for future research.

In terms of determining the necessity for cultural adaptations, future researchers should consider following a theoretical model. Following a stage model provides an opportunity for replication and standardization of the cultural adaptation process. This stage should also involve mixed methods approaches including qualitative and quantitative methods to obtain valid and comprehensive assessment of whether cultural adaptations are necessary. To assure a comprehensive consideration of whether cultural adaptations are at all necessary, it would be best to obtain a bottom-top research as well.

The current review has several strengths including a systematic approach to reviewing the existing literature on cultural adaptations of trauma-focused CBTs. The issue of culturally adapting trauma-focused treatments specifically, is important given the high prevalence of trauma exposure worldwide (Shalev et al., 2017; Van Ameringen et al., 2008). Unlike other occurring mental health problems (e.g., schizophrenia, depression), PTSD has a clear index event(s) and this can be an impetus for foreign involvement. For example, following trauma that affects communities (e.g., war, natural disaster), it is not uncommon for international groups (e.g., the Red Cross) to intervene in an effort to provide support. Understanding how interventions for trauma, developed outside of the culture for which they are being implemented, have been applied and adapted for these communities is a pivotal and pressing issue. Such understanding is critical to inform future researchers and clinicians on how these efforts can be improved to better fit the needs of the trauma-affected population and has the potential to save resources and maximize gains.

This article should also be considered in light of some limitations. First, only 17 articles were identified, and this is a major limitation of the literature. Although relevant databases were searched and gray literature was reviewed, there could be researchers or clinicians adapting therapies for other cultures who do not publish their processes. The efficacy of the adapted treatments in the included studies where examined appeared to be positive. However, this finding should be interpreted with caution in light of the variance across the studies in terms of study quality and methods, and how much detail was provided on the adaptation processes. There is also a likelihood of a file drawer effect. In future, when more research in this area is published, review papers could examine potential moderators of intervention efficacy related to the cultural adaptation process (e.g., whether a systematic, documented, stage model was used to adapt therapy). Relatedly, another potential limitation is that this review examined each of the included studies against recommended stage models. However, the influence of these stage models on treatment efficacy or appropriateness is still relatively unknown. In addition, due to limited resources, non-English literature was excluded in the current study. There could be additional articles on cultural adaptations that are published in various non-English languages and future research should attempt to include such studies to ensure comprehensiveness. This review is aimed at offering a summary of the state of the literature on cultural adaptation processes in trauma-focused CBTs to guide researchers and clinicians on potential areas of improvement for future adaptations.

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REFERENCES

References marked with an asterisk indicate studies included in the systematic review.

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Association.

American Psychological Association. (2017). Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder (PTSD) in Adults. Retrieved from https://www.apa.org/about/offices/directorates/guidelines/ptsd.pdf

*Asukai, N., Saito, A., Tsuruta, N., Kishimoto, J., & Nishikawa, T. (2010). Efficacy of Exposure Therapy for Japanese patients with posttraumatic stress disorder due to mixed traumatic events: A randomized controlled study. *Journal of Traumatic Stress*, 23, 744–750. https://doi.org/10.1002/jts.20589

Barrera, M. J., & Gonzalez-Castro, F. (2006). A heuristic framework for the cultural adaptation of interventions. *Clinical Psychology: Science and Practice*, 13, 311–316. https://doi.org/10.1111/j.1468-2850.2006.00043.x

*Bass, J. K., Annan, J., McIvor Murray, S., Kaysen, D., Griffiths, S., Cetinoglu, T., … Bolton, P. A. (2013). Controlled trial of psychotherapy for Congolese survivors of sexual violence. *The New England Journal of Medicine, 368*, 2182–2191. https://doi.org/10.1056/NEJMoa1211853

Benjet, C., Bromet, E., Karam, E. G., & Kessler, R. C. (2016). The epidemiology of traumatic exposure worldwide: Results from the World Mental Health Consortium. *Psychological Medicine, 46*, 327–343. https://doi.org/10.1017/S0033291715001981

Bernal, G., Bonilla, J., & Bellido, C. (1995). Ecological validity and cultural sensitivity for outcome research: Issues for the cultural adaptation and development of psychosocial treatments with Hispanics. *Journal of Abnormal Child Psychology, 23*(1), 67–82. https://doi.org/10.1007/bf01447045

Bernal, G., Jiménez-Chafey, M., & Domench Rodríguez, M. M. (2009). Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology: Research and Practice, 48*, 361–368. https://doi.org/10.1037/a0016401

*Bigfoot, D. S., & Schmidt, S. R. (2010). Honoring children, mending the circle: Cultural adaptation of Trauma-Focused Cognitive-Behavioral Therapy for American Indian and Alaska Native Children. *Journal of Clinical Psychology: In Session, 66*, 847–856. https://doi.org/10.1002/jclp.20707

Bolton, P., Bass, J. K., Abdulla Sabir Zangana, G., Kamal, T., McIvor Murray, S., Kaysen, D., … Rosenblum, M. (2014). A randomized controlled trial of mental health interventions for survivors of systematic violence in Kurdistan, Northern Iraq. *BMC Psychiatry, 14*, 360–375. https://doi.org/10.1186/s12888-014-0360-2

Cardemil, E. V., Reivich, K. J., & Seligman, M. E. P. (2002). The prevention of depressive symptoms in low-income minority middle school students. *Prevention & Treatment, 5*, 1–31. https://doi.org/10.1037/1522-3736.5.1.58a

Centre for Posttraumatic Mental Health. (2013). Australian Guidelines for the Treatment of Acute Stress Disorder and Posttraumatic Stress Disorder. Retrieved from https://www.phoenixaustralia.org/wp-content/uploads/2015/03/Phoenix-ASD-PTSD-Guidelines.pdf

Cloitre, M. (2015). The "one size fits all" approach to trauma treatment: Should we be satisfied? *European Journal of Psychotraumatology, 6*, 1–9. https://doi.org/10.3402/ejpt.v6.27344

Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2006). *Treating trauma and traumatic grief in children and adolescents*. New York, NY: Guilford Press.

*Damra, J. K. M., Nasser, Y. H., & Ghabri, T. M. F. (2014). Trauma-focused cognitive behavioral therapy: Cultural adaptations for application in Jordanian culture. *Counselling Psychology Quarterly, 27*, 308–323. https://doi.org/0.1080/09515070.2014.918534

Domenech-Rodriguez, M. M., Baumann, A. A., & Schwartz, A. L. (2009). Cultural adaptation of an evidence based intervention: From theory to practice in a Latino/a Community Context. *American Journal of Community Psychology, 47*, 170–186. https://doi.org/10.1007/s10464-010-9371-4

Domenech-Rodriguez, M. M., & Wieling, E. (2004). Developing culturally appropriate, evidence-based treatments for interventions with ethnic minority populations: First persona accounts of ethnic minority therapist. In M. Rastogi & E. Wieling (Eds.), *Voices of Color: First Person Accounts of Ethnic Minority Therapist* (pp. 313–333). Thousand Oaks: Sage.

Downs, S. H., & Black, N. (1998). The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *Journal of Epidemiology and Community Health, 52*, 377–384. https://doi.org/10.1136/jech.52.6.377

Drozdek, B. (2015). Challenges in treatment of posttraumatic stress disorder in refugees: Towards integration of evidence-based treatments with contextual and culture-sensitive perspectives. *European Journal of Psychotraumatology, 6*, 1–6. https://doi.org/10.3402/ejpt.v6.24750

Falagas, M. E., Pitsouni, E. I., Malietzis, G. A., & Pappas, G. (2008). Comparison of PubMed, Scopus, Web of Science, and Google Scholar: Strengths and weaknesses. *FASEB Journal, 22*, 338–342. https://doi.org/10.1096/fj.07-9492LSF

Flick, U. (1992). Combining methods-lack of methodology: Discussion of Sotirakopoulou & Breakwell. *Papers on Social Representations*, 1, 43–48.

Foa, E. B., Hembree, E. A., & Rothbaum, B. O. (2007). *Prolonged Exposure Therapy for PTSD: Emotional Processing of Traumatic Experiences, Therapist Guide*. New York: Oxford University Press.

Foa, E. B., Keane, T. M., Friedman, M. J., & Cohen, J. A. (2009). *Effective treatments for posttraumatic stress disorder: Practice guidelines from the International Society for Traumatic Stress Studies* (2nd Edition.). New York: Guilford Publications.

Giammusso, I., Casadei, F., Catania, N., Foddai, E., Monti, M. C., Savoja, G., & Tosto, C. (2018). Immigrants psychopathology: Emerging phenomena and adaptation of mental health care setting by native language. *Clinical Practice & Epidemiology in Mental Health*, 14(1), 312–322. https://doi.org/10.2174/1745017901814010312

Gonzalez Castro, F., Barrera, M., & Holleran Steiker, L. H. (2010). Issues and challenges in the design of culturally adapted evidence-based interventions. *Annual Review of Clinical Psychology*, 6, 213–239. https://doi.org/10.1146/annurev-clinpsy-033109-132032

*Goodkind, J. R., Lanoue, M. D., & Milford, J. (2010). Adaptation and implementation of cognitive behavioral intervention for trauma in schools with American Indian Youth. *Journal of Clinical Child & Adolescent Psychology*, 39, 858–872. https://doi.org/10.1080/15374416.2010.517166

Griner, D., & Smith, T. B. (2006). Culturally adapted mental health interventions: A meta-analytic review. *Psychotherapy: Theory, Research, Practice, Training*, 43, 531–548. https://doi.org/10.1037/0033-3204.43.4.531

Herman, J. L. (1997). *Trauma and Recovery*. New York: BasicBooks.

Hwang, W.-C. (2006). The psychotherapy adaptation and modification framework: Application to Asian Americans. *American Psychologist*, 61(7), 702–715. https://doi.org/10.1037/0003-066x.61.7.702

Hwang, W. C. (2009). The formative method for adapting psychotherapy (FMAP): A community-based developmental approach to culturally adapting therapy. *Professional. Psychology: Research and Practice, 40*, 369–371. https://doi.org/10.1037/a0016240

*Kaysen, D., Lindgren, K., Zangren, G. A. S., Murray, L., Bass, J., & Bolton, P. (2013). Adaptation of Cognitive Processing Therapy for treatment of torture victims: Experience in Kurdistan, Iraq. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5, 184–192. https://doi.org/10.1037/a0026053

Kessler, R. C. (2000). Posttraumatic stress disorder: The burden to the individual and to society. *Journal of Clinical Psychiatry*, 61, 171–181. http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1097-4679

Lau, A. S. (2006). Making the case for selective and directed cultural adaptations of evidence-based treatments: Examples from parent training. *Clinical Psychology: Science and Practice*, 13, 295–310. https://doi.org/10.1111/j.1468-2850.2006.00042.x

*Lane, D. W., Myers, K. J., Hill, M. C., & Lane, D. E. (2016). Utilizing narrative methodology in trauma treatment with Haitian Earthquake survivors. *Journal of Loss and Trauma*, 21, 560–574. https://doi.org/10.1080/15325024.2016.1159113

Lisy, K., & Porritt, K. (2016). Narrative Synthesis: Considerations and challenges. *International Journal of Evidence-Based Healthcare*, 14(4), 201. https://doi.org/10.1097/01.XEB.0000511348.97198.8c

Matsumoto, D., & Juang, L. (2016). *Culture and psychology* (6th ed.). Boston: Cengage Learning.

McKleroy, V. S., Galbraith, J. S., Cummings, B., Jones, P., Harshbarger, C., Collins, C., ... ADAPT Team (2006). Adapting evidence–based behavioral interventions for new settings and target populations. *AIDS Education and Prevention*, 18, 59–73. https://doi.org/10.1521/aeap.2006.18.supp.59

*McMullen, J., O'Callaghan, P., Shannon, C., Black, A., & Eakin, J. (2013). Group trauma-focused cognitive-behavioral therapy with former child soldiers and other war-affected boys in the DR Congo: A randomised controlled trial. *Journal of Child Psychology and Psychiatry*, 54, 1231–1241. https://doi.org/10.1111/jcpp.12094

*Murray, L. K., Familiar, I., Skavenski, S., Jere, E., Cohen, J., Imasiku, M., ... Bolton, P. (2013). An evaluation of Trauma Focused Cognitive Behavioural Therapy for children in Zambia. *Child Abuse & Neglect*, 37, 1–20. https://doi.org/10.1016/j.chiabu.2013.04.017

National Institute for Health and Care Excellence. (2005). Posttraumatic stress disorder: Management. Retrieved from nice.org.uk/guidance/cg26

Nicolas, G., Wheatley, A., & Guillaume, C. (2015). Does one trauma fit all? Exploring the relevance of PTSD across cultures. *International Journal of Culture and Mental Health*, 8, 34–45. https://doi.org/10.1080/17542863.2014.892519

*O'Callaghan, P., McMullen, J., Shannon, C., Rafferty, H., & Black, A. (2013). A randomised controlled trial of trauma-focused cognitive behavioral therapy for sexually exploited, war-affected Congolese girls. *Journal of the American Academy of Child & Adolescent Psychiatry*, 52, 359–369. https://doi.org/10.1016/j.jaac.2013.01.013

*O'Donnell, K., Dorsey, S., Gong, W., Ostermann, J., Whetten, R., Cohen, J. A., ... Whetten, K. (2014). Treating maladaptive grief and posttraumatic stress symptoms in orphaned children in Tanzania: Group-based Trauma-Focused Cognitive–Behavioral Therapy. *Journal of Traumatic Stress*, 27, 664–671. https://doi.org/10.1002/jts.21970

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Los Angeles, CA: Sage.

Resick, P. A., Monson, C. M., & Chard, K. (2008). *Cognitive processing therapy*. Washington, D. C: Department of Veteran's Affairs.

Resnicow, K., Soler, R., Braithwaite, R. L., Ahluwalia, J. S., & Butler, J. (2000). Cultural sensitivity in substance use prevention. *Journal of Community Psychology*, *28*, 271–290. https://doi.org/10.1002/(SICI)1520-6629(200005) 28:3<271::AID-JCOP4>3.0.CO;2-I

*Rodriguez, V. M. (2011). Evaluation of cognitive processing therapy for Mexican women with a history of trauma (Doctoral dissertation). Retrieved from: https://search-proquest-com.ezproxy.lib.ryerson.ca/psycinfo/docview/ 900624532/DE269084D6CA45A7PQ/1?accountid=13631

*Schottelkorb, A. A., Doumas, D. M., & Garcia, R. (2012). Treatment for childhood refugee trauma: A randomized controlled trial. *International Journal of Play Therapy*, *21*, 57–83. https://doi.org/10.1037/a0027430

*Schulz, P. M., Huber, L. C., & Resick, P. A. (2006). Practical adaptations of Cognitive Processing Therapy with Bosnian refugees: Implications for adapting practice to a multicultural clientele. *Cognitive and Behavioral Practice*, *13*, 310–321. https://doi.org/10.1016/j.cbpra.2006.04.019

Shalev, A., Liberzon, I., & Marmar, C. (2017). Post-traumatic stress disorder. *The New England Journal of Medicine*, *376*, 2459–2469. https://doi.org/10.1056/NEJMra1612499

Trac, M. H., McArthur, E., Jandoc, R., Dixon, S. N., Nash, D. M., Hackman, D. G., & Garg, A. X. (2016). Macrolide antibiotics and the risk of ventricular arrhythmia in older adults. *Canadian Medical Association Journal*, *188*, E12–E129. doi: 0.1503/ cmaj.150901.

*Valentine, S. E., Borba, C. P. C., Dixon, L., Vaesworn, A. S., Gallegos Guajardo, J., Resick, P. A., ... Marques, L. (2017). Cognitive Processing Therapy for Spanish-speaking Latinos: A formative study of a model-driven cultural adaptation of the manual to enhance implementation in a usual care setting. *Journal of Clinical Psychology*, *73*, 239–256. https://doi. org/10.1002/jclp.22337

Van Ameringen, M., Mancini, C., Patterson, B., & Boyle, M. H. (2008). Posttraumatic stress disorder in Canada. *CNS Neuroscience & Therapeutics*, *14*, 171–181. https://doi.org/10.1111/j.1755-5949.2008.00049.x

*Wang, Z., Wang, J., & Maercker, A. (2016). Program use and outcome change in a web-based trauma intervention: Individual and social factors. *Journal of Medical Internet Resaerch*, *18*, e243–e263. https://doi.org/10.2196/jmir.5839

Weersing, R. V., & Weisz, J. R. (2002). Community clinic treatment of depressed youth: Benchmarking usual care against CBT clinical trials. *Journal of Consulting and Clinical Psychology*, *70*, 299–310. https://doi.org/10.1037//0022-006X.70.2.299

Wingood, G., & DiClemente, R. J. (2008). The ADAPT-ITT Model: A novel method of adapting evidence-based HIV interventions. *Journal of Acquired Immune Deficiency Syndrome*, *47*, S40–S46. https://doi.org/10.1097/QAI. 0b013e3181605df1

*Whealin, J. M., Yoneda, A. C., Nelson, D., Hilmes, T. S., Kawaski, M. M., & Yan, O. H. (2017). A culturaly adapted family intervention for rural pacific island vterans with PTSD. *Psychological Services*, *14*, 295–306. https://doi.org/10.1037/ ser0000186