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Adaptation of Cognitive Processing Therapy for Treatment of Torture Victims: Experience in Kurdistan, Iraq

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Objective: Most empirically based therapies (EBTs) for mental health disorders have been developed and disseminated in high resource countries, despite the strong need for mental health treatment in low resource countries. The present study describes the process of implementing an EBT in Kurdistan, Iraq—in this case, Cognitive Processing Therapy (CPT), an empirically supported treatment for post-traumatic stress disorder (PTSD) that was originally developed in the United States. *Method:* The adaptation process included addressing training needs of therapists with little to no training in cognitive–behavioral or manualized treatments and tailoring CPT for the high rates of illiteracy in the client population and the specific beliefs and structures of Kurdish culture. The adaptation process was iterative, occurring throughout training and early implementation and incorporating feedback from multiple sources. *Result:* The process of training was longer and included more hands-on practice of therapy skills than in the United States. Although the therapy itself did not require major changes, simplification of content and modification of some of the CPT themes was necessary to better fit the Kurdish culture. CPT seemed to be well tolerated by clients and their symptoms appeared to improve. *Conclusions:* Results suggest that it is feasible to train counselors with little formal mental health training in CPT and to adapt CPT to culture that is qualitatively different from the population on which it was initially developed. The general strategies and process described in this paper may provide a framework useful for adapting other EBTs for other low and medium resource settings.

Keywords: PTSD, cognitive processing therapy, depression, torture, treatment

Most empirically based therapies (EBTs) for mental health disorders have been developed in high resource countries, although the gap between need and access exceeds 90% in the least re-

sourced countries (Patel et al., 2010). Barriers to implementing empirically based interventions include the need to adapt EBTs for use in these settings and the need to address training nonspecialist providers (Kazdin & Blasé, 2011; Patel et al., 2010). This article describes the process of adapting Cognitive Processing Therapy (CPT), an empirically supported treatment for posttraumatic stress disorder (PTSD), for use in northern region of Iraq known as Kurdistan. CPT was one of the treatment arms in a larger four-arm randomized trial investigating the impact of three different psychotherapies compared with a wait-control condition on depression and PTSD symptoms experienced by Kurdish torture survivors. Our goals were to adapt the therapy to be culturally appropriate for the local population and usable by the local community mental health workers (CMHWs). In this article, we provide an overview of CPT and background to the project, describe the process of adapting CPT for use in the Kurdish region, and discuss lessons learned.

Overview of CPT

CPT was developed in the United States and is an established therapy for PTSD and PTSD with comorbid depression (Resick, Monson, & Chard, 2008; Resick & Schnicke, 1992). It is a 12-session therapy that combines cognitive restructuring with emo-

tional processing of trauma-related content. The therapy sessions initially focus on assimilated beliefs—that is, rigid or inaccurate beliefs about the traumatic event, which often reflect self-blame or hindsight bias. Examples include beliefs like, "It was all my fault," "If only I had done something differently, then the event would never have happened," and "I should have known this [traumatic event] would happen." CPT focuses on overgeneralized trauma-related beliefs about the self and others relevant to five key areas: safety, trust, power, esteem, and intimacy. Examples include, "The world is dangerous" [safety], "All people are evil" [esteem], and "I can never trust anyone" [trust], "I am helpless" [power], "I can't get close to other people" [intimacy]. Over the course of treatment, clients learn to identify and modify these beliefs (collectively called "stuck points") in order to develop more balanced, flexible, and adaptive beliefs. Finally, CPT encourages the processing of affect relating to the traumatic event through the use of a written trauma narrative. Clients are instructed to write a detailed description of the worst traumatic event and allow themselves to feel their emotions without avoiding them.

CPT has been found to be effective in the treatment of PTSD in randomized clinical trials conducted by different research teams across trauma exposed populations, including survivors of sexual and physical assault, child sexual abuse, and combat (Chard, 2005; Monson et al., 2006; Resick, Monson, & Chard, 2008; Resick, Nishith, Weaver, Astin, & Feuer, 2002). CPT has also been found to reduce negative emotions such as grief, shame, guilt, and anger (Monson et al., 2006; Nishith, Nixon, & Resick, 2005; Resick et al., 2002). Secondary outcomes, including general health concerns, sleep difficulties, and symptoms of Axis II disorders, also appear to improve with CPT (Clarke, Rizvi, & Resick, 2008; Galovski, Monson, Bruce, & Resick, 2009; Galovski, Sobel, Phipps, & Resick, 2005; Resick et al., 2003). Consequently, CPT is being widely disseminated, including to the U.S. Veterans' Administration (VA) mental health system and the State of Texas's mental health system (Karlin et al., 2010).

CPT trials have largely been conducted in high resource settings and with U.S. participants, the overwhelming majority of whom were Caucasian (e.g., Chard, 2005; Monson et al., 2006; Resick et al., 2002, 2008). Thus, little is known about the use of CPT in low resource settings and/or with populations that differ culturally from Caucasians from the United States. One exception is an effectiveness study of U.S.-based Bosnian refugees. They experienced multiple traumas, including civil war, loss of loved ones, combat exposure, and bombings, with nearly two-thirds also reporting torture (Schulz, Resick, Huber, & Griffith, 2006). Several adaptations increased cultural relevance and accessibility for the Bosnian refugees, including allowing longer individual sessions ($M = 1.5$ hours) and flexibility in the number of sessions ($M = 17$ sessions). A relaxation component was added to address fears of physical symptoms of anxiety. Written homework was completed orally during the session rather than as homework, and in-home sessions were done when necessary (Schulz, Resick, Huber, & Griffith, 2006; Schulz, Huber, & Resick, 2006). The prepost treatment effect sizes were comparable with published effect sizes from randomized clinical trials on CPT (Schulz et al., 2006), suggesting that CPT may be amenable to use with other torture-exposed populations, as well as other cultural groups.

Background to the Kurdistan Project

Kurdistan is an autonomous region of Iraq consisting of the governates of Dohuk, Erbil, and Suleimaniya. The Kurdish community is mostly Muslim, and the culture has been shaped by indigenous, ancient Iranian (i.e., Zoroastrian), and Islamic influences (Gunter, 2008; O'Leary, 2002). Since the formation of Iraq, Iraqi Kurdistan has been subject to political and cultural repression, ethnic cleansing, and genocide (Rogg & Rimscha, 2007). During the Iran–Iraq War (1980–1988), the national government implemented a campaign of repression and forcible resettlement called Al-Anfal (The Spoils) targeted at Iraqi Kurds. During this time, chemical and biological weapons were used on Kurdish towns and villages (Hiltermann, 2007; Khateri et al., 2003; Mullan Cook-Deegan, Hu, & Shukri, 1989). Mass executions occurred, and villagers were relocated to reservation-like collective towns (Gunter, 2008; Kiernan, 2007; O'Leary, 2002; Wisborg, Murad, Edvardsen, & Brinchmann, 2008). It is estimated that approximately 4,000 villages were destroyed during the Al-Anfal, 300,000 Kurds were killed, and many suspected rebels were detained and tortured (O'Leary, 2002; Stover, Sissons, Pham, & Vinck, 2008).

The Kurdish population in the post-Saddam era still faces challenges. Political corruption, poverty, and human rights violations are major concerns (Natali, 2010). While many of the urban areas experience growth, rural areas are stagnating, and thousands of Al-Anfal victims still lack promised services, including health care access (Tawfik-Shukor & Khoshnaw, 2010; Wisborg et al., 2008). Gender-based violence occurs, including honor killings, coerced suicides, and female genital cutting (Brown & Romano, 2006; Burki, 2010; Green & Ward, 2009; Paley, 2008; Taysi & Minwalla, 2009; von der Osten-Sacken & Uwer, 2007). In addition, the Iraqi Kurdish population has been involved in more recent demonstrations, which have resulted in detentions and killings, and there is ongoing concern about unrest (Healy & Adbulla, 2011).

Iraqi Kurds and Psychiatric Symptoms

The impact of the Al-Anfal on the mental health of the Kurdish people has been understudied, but existing research suggests that Kurds who have been exposed to trauma experience symptoms and problems that resemble Western conceptions of PTSD and Major Depressive Disorder. For example, one study of Kurdish civilians in Halabja found that those who experienced traumatic events (e.g., chemical weapons attacks, torture survivors, and those exposed to land mines) were more likely to experience symptoms of depression, PTSD, and chronic pain than those without exposure to these events (Dworkin et al., 2008). A 2006–2007 World Health Organization (WHO) survey of 4,332 adults covering all of Iraq found that the most prevalent class of disorders was anxiety disorders (19%), and the most prevalent lifetime disorder was major depression (7%; Alhasnawi et al., 2009). This same study found that access to care was low, with only 6% of individuals being able to access any type of mental health treatment.

Process of Choosing CPT

In April 2008, the research team from the Johns Hopkins University conducted a brief qualitative study on 63 torture or chemical attack survivors in the Suleimaniyah governorate, to identify

their priority mental health issues. Survivors frequently described symptom groupings highly consistent with PTSD, Depression, and Generalized Anxiety Disorder, as well as symptoms of complicated bereavement. Torture survivors also described significant psychosocial problems, including poor relationships within the family and marginalization from the wider Kurdish society. They also described regret over the sacrifices they made and cited concerns that their sacrifices did not produce assistance and recognition from the government or from society to which they believe they are entitled.

The research team shared the results with torture and trauma treatment experts, and reviewed the literature, to select interventions for addressing these issues among torture survivors. Selection focused on identifying interventions that might be effective for survivors, based on existing scientific evidence, and feasible in a low resource context such as Kurdistan. The PI on the project (PB) selected CPT because of the evidence base (see Overview of CPT); because the CPT manual appeared to offer sufficient detail for training and use by providers without extensive clinical training or experience; and because CPT appeared best suited for addressing all the major issues identified in the brief qualitative study.

Method

Institutional Support and Informed Consent

Procedures for the adaptation of CPT and the RCT were approved by the Johns Hopkins University Institutional Review Board. Participants completed informed consent procedures prior to participation.

Adaptation Process

We adapted the existing CPT manual and training materials (Resick, Monson, & Chard, 2008) to be both culturally appropriate and usable by local CMHWs. The adaptation process was guided by the local context, including therapists (CMHWs) with little to no training in cognitive–behavioral or manualized treatments; a client population with varying educational and literacy levels (including a large illiterate population); and the specific beliefs of Kurdish culture. The adaptation process was iterative, allowing for feedback from multiple constituencies including the project research team from Johns Hopkins (LM, JB, and PB), the hosting nongovernmental organization (Heartland Alliance), local Kurdish mental health care providers, the local clinical supervisor, and the therapists themselves.

The first phase of the adaption process consisted of the U.S. trainers (DK and KL) editing existing CPT training materials and the manual to replace technical terms and American idioms with standard, simple English terms and phrases. The simplified materials were reviewed by members of the research team experienced in training persons with limited previous experience in mental health care (PB, JB, and LM). The resulting materials were translated into Kurdish by professional translators based in Kurdistan. Those materials were then reviewed by Kurdish collaborators and mental health care providers with their review focusing on clarity of content and cultural appropriateness.

Adaptation continued in Kurdistan during the 8-day training of the CMHWs, study supervisor, and several local mental health providers. Feedback from the trainees was solicited on a daily basis and used to further adapt the manual and training materials. The field-based adaptation process focused on continuing to (a) improve clarity of all written materials; (b) increase the cultural fit of materials; (c) increase the accessibility of client materials for those with lower levels or no literacy; and (d) reduce barriers to implementation inherent in a low resource environment (e.g., reduced access to photocopiers for handouts for homework assignments and symptom assessments).

Prior to initiating the trial, the adapted CPT treatment was piloted by the CMHWs and the clinical supervisor, allowing for additional feedback as they implemented the therapy for the first time. Minor changes were made to materials during this period. During the trial, feedback from therapists and their supervisor was continuously solicited and revisions to the therapy protocol were made, when needed. At the end of the study, a debriefing meeting was held with the project CMHWs and clinical supervisor to solicit any additional feedback regarding the training, materials, supervision and implementation of the therapy. Based on this feedback, a final set of materials was prepared for the CMHWs and supervisor to use as reference material as they continue to provide the therapy as part of an ongoing mental health service program.

Therapy Adaptation

The basic structure of CPT and essential elements were retained in the CPT-Kurdistan (CPT-K) version. Because CPT training manuals were originally written for therapists with at least master's-level training in mental health and assumes that clients have at least a 4th grade education (United States; Resick, Monson, & Chard, 2008), materials were simplified for CPT-K. The main changes involved reducing technical jargon, decreasing the emphasis on underlying theories of PTSD, including more scripts of therapy content in lay language, adding more clinical case examples relevant to the experiences of torture survivors in Kurdistan, and modifying homework assignments for nonliterate clients.

Two types of modifications were made to homework assignments. For clients with at least a minimum level of literacy, the complexity and length of written materials were reduced (Figure 1). For illiterate clients, or those who were not comfortable completing homework in their homes, alternative ways to complete the homework assignments in collaboration with the local CMHWs and supervisor were identified. Those alternatives incorporated strategies the CMHWs already used with clients (see Discussion). We monitored the success of these modifications and also debriefed the CMHWs about them during the final project meeting.

We also revised the content of the last five sessions, which focus on major themes thought to be affected by trauma—for example, safety, trust, power, esteem, and intimacy (Resick & Schnicke, 1992). In the standard CPT, for each theme the client is asked to identify maladaptive beliefs about the self and others related to that theme. For example, for the safety theme, a client might identify a belief that because she wasn't safe during the torture she cannot ever be safe. In developing CPT-K, we reviewed each theme's description, related stuck points, and associated symptoms and behaviors with the CMHWs and supervisor. Three of the five themes (safety, trust, and power) translated well into Kurdish, and many maladaptive beliefs that the CMHWs encountered in clients
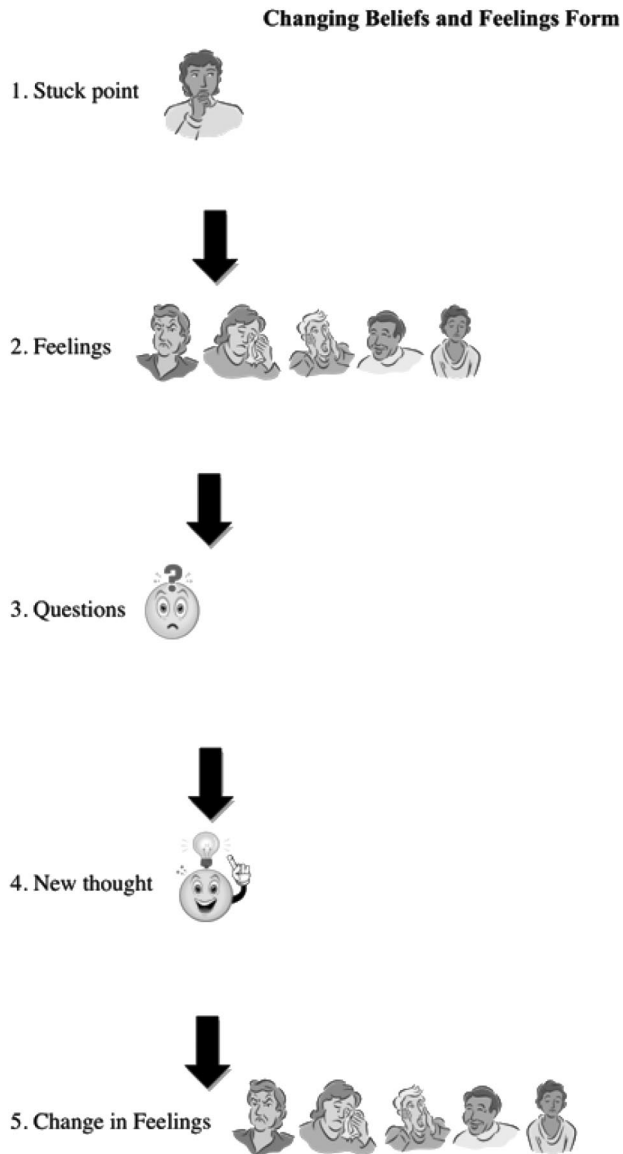
Changing Beliefs and Feelings Form

1. Stuck point

2. Feelings

3. Questions

4. New thought

5. Change in Feelings

Figure 1. Challenging beliefs worksheet adapted for Kurdistan.

with PTSD were similar to those described in the original CPT manual. However, neither the esteem nor intimacy theme had a direct Kurdish equivalent—that is, after substantial discussion a conceptual "synonym" could not be identified. Behavioral descriptions of both themes and their associated symptoms were described to the CMHWs, supervisor, and local mental health experts to generate alternative themes that were more culturally appropriate and relevant to the Kurdish torture survivors (described in Results).

Onsite Training

We trained 11 CMHWs and a clinical supervisor, all of whom provided CPT during the evaluation trial. The CMHWs were originally trained as physician's assistants or nurse equivalents and work in government clinics in the Erbil and Sulaimaniya gover-

nates of the Kurdish Regional Government. In 2005–2006, the CMHWs had received training in general mental health and counseling by Heartland Alliance (HA) and had since provided mental health services to rural populations on a part-time basis. They primarily provided sessions of supportive counseling and referrals to psychiatrists. The supervisor was selected by the Ministry of Health to work with HA. Additional training participants included staff from the Heartland Alliance Trauma Rehabilitation and Training Center (TRTC) and a clinical psychologist from central Iraq.

The training occurred in the city of Suleimaniyah. It lasted for 8 days and was conducted in English with Kurdish translation by a local, professional translator. Translation of clinical terms and concepts was assisted by the clinical supervisor of the CMHWs and the TRTC clinical supervisor who are both bilingual. Training materials consisted of slides displayed in Kurdish on a projection screen and a "handout" version of the slides.

Training content included background on information processing theory of PTSD relevant to the implementation of CPT, as well as step-by-step instruction of how to conduct each of the 12 therapy sessions. Content emphasized the structure of CPT, both within and across sessions, and the importance of client homework. The four basic components of each session were emphasized (e.g., check symptoms, review homework, teach a new skill, and assign homework for the next session) and how the therapy progresses over the 12 sessions. Homework adherence was discussed as critical. To gain a better understanding of homework activities and their importance, trainees were asked to complete the same type of homework that clients would do between training days. When a trainee did not complete the homework activity, the trainers addressed this by modeling what the CMHWs would do with their clients if they faced the same situation (e.g., trainees were asked about the reasons for noncompletion, homework was completed verbally at the beginning of the training day, troubleshooting was done to address potential barriers to the completion of future assignments, and the homework was reassigned).

The trainers emphasized the importance of regular, ideally weekly, session attendance. In Kurdistan there is little exposure to psychotherapy and the local therapists identified 12 weeks of sessions as a potential barrier. CMHWs practiced negotiation strategies that they could use with clients to address these barriers For example, if a client was reluctant to commit to 12 weeks of treatment, a shorter period of therapy could initially be negotiated (e.g., "let's start with 6 sessions") with the understanding that clients would be encouraged to complete the entire 12 weeks of treatment after the shorter period was completed.

To pace the training and practice opportunities, the trainers used a 4-step process. First, the trainers would explain a skill or topic during which time the trainees were asked not to take notes. Second, the skill was demonstrated, typically in a brief role play conducted by the trainers or a trainer with one of the trainees. Third, the trainees were invited to ask questions. Finally, the content was reviewed again for note-taking. This process was designed to address several issues that emerged in the early stages of the training. The trainees were enthusiastic and eager to engage through a stream of questions. Although the questions were helpful to the trainees and trainers, these also appeared more useful once trainees had heard all of the initial information and had seen the therapy skill demonstrated. Because rote learning was a

alternative thought emerged: "God tests everyone at times but this does not mean I am unclean forever."

Similar strategies were used with beliefs about social status and rape. Several female clients reported concerns about reduced social status because of being widowed or raped—for example, "I am worthless because I am a widow," "My family is ashamed of me because I am raped." The CMHWs and supervisor noted that there is stigma in Kurdish culture if a woman is widowed and that rape victims, particularly female victims, may be viewed as "unclean" or as having "dishonored" their families. Socratic questioning was used to identify possible exceptions. In the former example, therapist explored whether the client thought she was worthless and whether *all* people thought she was *completely* worthless *all* the time. In the latter case, exploration centered on whether all of the family felt ashamed and how the client came to that conclusion.

Gender roles were an important consideration in adapting CPT. There are strong cultural proscriptions about cross-sex interactions, which could result in problems in the event of mixed-sex therapist-client dyads (e.g., a male therapist and female client or a female therapist and male client). The general status and legal rights of women were also issues, including the extent to which woman can consent to treatment without approval of a male family member. The trainers (DK, KL) relied heavily on local members of the study team to understand the complexities of these issues. Solutions for working with cross-sex dyads included having a family member sit in the sessions as well as having CMHWs switch clients when possible and necessary, to create same-sex dyads. For situations where husbands denied their wives access to care (or parents denied their daughters access to care), negotiation with spouses or families was sometimes possible. In other situations, female relatives would accompany the women to sessions.

Language differences also necessitated some adaptations. Some key concepts—"esteem" and "intimacy"—were not readily translatable into Kurdish. The Esteem module in CPT is designed to address maladaptive beliefs about one's sense of self-worth or that of other people or subgroups of people. During the training, discussion among the CMHWs, the supervisor, and the local mental health experts indicated that "Respect" was the closest concept in Kurdish; thus, the esteem module was restructured to focus on respect for self and respect for others. The Intimacy module addresses one's ability to cope and self-sooth in nondestructive ways ("self intimacy") as well as emotional and sexual closeness with others ("intimacy with others"). The term did not translate well into Kurdish, and Western conceptions of intimacy with others appeared different from those in Kurdistan. In Kurdistan, many marriages are arranged and gender segregation is common. The trainees reported that socialization and close, emotional ties among adults more typically occur among same-gender friends or relatives. Therefore, "intimacy" was restructured as "Caring"—a term that did translate well into Kurdish—and the module was adapted to address both how one cares for oneself and how one demonstrates caring for other people.

Finally, the CMHWs and other trainees raised several issues about an additional belief common among their clients. They reported that it was common for their clients to have disrupted beliefs about the sacrifices related to the experiences and torture they endured during the Al-Anfal which could have been a function of Kurdish culture or of the experience of torture. Clients had thoughts like, "No one respected my sacrifice" and "My sacrifice

was worthless." Beliefs about sacrifice could be especially relevant for torture survivors in which the traumatic event may have occurred because of the person's group affiliation or political beliefs and activities. Discussion ensued and we deliberated whether this set of beliefs required an additional module or whether it could be addressed within one of the existing modules. After considerable discussion, it was concluded that these beliefs could likely be addressed within the esteem/respect module. Examples of beliefs about sacrifice were included in the manuals to illustrate ways in which torture can affect one's beliefs about one's community and oneself.

Structural Considerations

Novelty of talk therapy. There was not strong tradition of talk therapy or mental health treatment in the Kurdish region. Local staff at HA and the TRTC explained that when mental health treatment is available, it is most commonly psychotropic mediations rather than talk therapy. CMHWs commonly encountered problems with obtaining private space to meet with clients and getting support from staff at the local clinics for dedicated time to provide treatment. The HA team worked through the systems within the Ministry of Health to deal with these issues. Although they had some success, many of these challenges remain. Larger systems level approaches involved increasing referrals from primary health centers and hospitals to the CMHWs within Kurdistan and conducting public outreach. For example general practitioners working in the same institutions that CMHWs worked at were approached and asked for help in talking about the therapy and referring clients.

Clinical supervision. The lack of a talk therapy tradition also complicated supervision efforts. The traditional role of a supervisor was largely bureaucratic; the notion of a "clinical supervisor" who would review cases and provide feedback on treatment adherence, clinical strengths and areas for improvement was not familiar. The traditional supervision structure in Kurdistan appeared to be more hierarchical and authoritarian rather than the educational and collaborative model that is ideally used in Cognitive Behavioral Therapy supervision (Kitchiner, Phillips, Roberts, & Bisson, 2006; Liese & Beck, 1997). Thus, substantial time was dedicated to training the supervisor in clinical supervision skills. The U.S. trainers had weekly consultation with the supervisor to review the CMHWs' cases, and part of that consultation focused on teaching supervision skills. The process quickly became bidirectional, with the supervisor suggesting techniques to improve therapists' implementation and knowledge of CPT (e.g., quizzes about CPT concepts and skills) and specific content areas that required additional training. To model this type of clinical supervision, the U.S. trainers used CPT skills in the process of supervision, including agenda setting, Socratic dialogue to challenge therapist maladaptive cognitions, and CPT homework to help therapists master the clinical skills. Role plays were used to model skills and direct observation of sessions with constructive feedback.

Evidence-based practices. The notion of evidenced based practices was not common. Therefore, the U.S. trainers' usual approach of providing summaries of research findings to obtain counselor buy-in was not compelling as a rationale for using CPT.

Instead, the U.S.-based trainers' positions as teachers (a profession with high status in Kurdistan) and clinicians were more persuasive about the potential utility of CPT. CMHW buy-in was ultimately gained once they began to implement the therapy and see the impact on their clients, similar to the pattern seen in dissemination efforts in the United States (Cohen & Mannarino, 2008).

CPT conceptualization and language. There were also challenges specific to CPT. Local government agencies had been working to raise awareness related to mental health concerns and those efforts reportedly characterized mental health problems using an illness model: that is, mental disorders as diseases. CPT's conceptualization of PTSD, which is discussed explicitly with clients during the first session, characterizes PTSD as a "natural recovery interrupted" and seeks to a certain extent, to normalize PTSD. Some CMHWs were concerned about the potential for this conceptualization to undermine efforts to raise awareness that mental problems were "real" problems. The manual was revised to emphasize that someone can have a real problem and still recover naturally or with talk therapy. For example, similar to some infections, mental concerns are real problems but some people may recover from them naturally whereas others may need formal treatment.

The psychotherapy language and jargon of CPT were also problematic. Terms such as "Socratic questioning," "assimilation," "accommodation," and "cognitive restructuring" needed to be simplified. Socratic dialogue was described as using "gentle, curious, questions." CPT was described focusing on beliefs about the trauma that may not be true and fair about what happened (assimilation), as well as beliefs about present and future that are too extreme (overaccommodation). Accommodation was explained as beliefs that have been changed enough to make sense of the trauma in a way that is more accurate, balanced, and realistic.

Literacy. The CMHWs reported that illiteracy was common in rural areas of Kurdistan, and statistics indicate that more than half of older women in rural regions of Iraq are illiterate (Iraq Interagency Information and Analysis Unit, 2010). To make CPT more accessible, we reduced the complexity of written materials and incorporated changes to help with retention of information. Worksheets were simplified, both in terms of the language used and the number of items on a worksheet. For example, a standard CPT worksheet called "Challenging Questions" had 10 items whereas in CPT-KU, this worksheet was renamed "Thinking Questions" (to emphasize that we are teaching about new thinking) and was reduced to the 5 least abstract questions. Worksheets were also modified to use pictures as cues to help illiterate clients remember the worksheet instructions and/or skill. Through brainstorming discussions with the CMHWs, a process emerged whereby the CMHWs would teach the skill related to the worksheet during the session and the clients could then refer back to the pictures on the worksheet when doing the homework. For example, in CPT-KU one worksheet called the "ABC sheet," used a picture of a person standing as a cue for the "Activating event," a person thinking as a cue for the "Belief," and people with various facial expressions as cues for the "Consequence" or emotion. Instructions were modified to encourage clients with no or low literacy to complete the worksheets by drawing pictures to act as reminders for what they were thinking and feeling (i.e., nonliterate client could "think through" or use mental rehearsal to complete

the homework by using the pictures as memory cues for what skills to practice).

An additional adaptation was the removal of two behavioral assignments in the later sessions of treatment. The first was related to doing a nice thing for oneself daily, and the second to giving and receiving compliments. The removal of these activities was done based on feedback from the local supervisors and therapists and the study team. Doing so simplified the protocol for both clients and therapists. Thus, the CPT-KU protocol focused on the clients mastering skills related to identifying thoughts and feelings, challenging their own thoughts, and generating alternative ways of viewing the situation, all core skills of CPT.

Efforts were also made to increase the chances that clients would complete their homework, regardless of their literacy level and/or their access to materials to complete the homework (e.g., paper, worksheets). Specific strategies included the CMHWs helping their clients identify reminders for homework completion. The CMHWs suggested and helped clients use their mobile phone alarms or the daily calls to prayer as reminders. The CMHWs and supervisor also suggested that family members could be additional, important resources for facilitating homework completion and that including them would be culturally appropriate. The CMHWs informed us that family members are often involved in other types of treatment and that there is a strong emphasis in Kurdistan on community and family support. To the extent that the clients reported supportive and safe relationships with family members, CMHWs utilized those relationships to assist with homework compliance, including using literate family members to act as scribes. This strategy may have an added benefit of reengaging individuals with their family or community for support. As an additional option, the CMHWs themselves acted as scribes and helped clients write their impact statements or trauma accounts in session if no one else could be identified to do so. The above solutions were ultimately incorporated into the manual. All CPT homework assignments included instructions for use with literate and nonliterate clients.

Acceptance of CPT

Clients' completion of sessions was comparable with RCTs in the United States. The drop out rate was 24%, compared with 30% for waitlist controls which suggests this adaptation of CPT for Kurdistan (CPT-KU) was well tolerated by the population. The on-site clinical supervisors indicated that the clients appear to find the therapy helping in improving daily functioning and symptoms. Based on session-by-session symptom measures collected as part of the supervision process, most clients appeared to improve. Clients also described changes in their daily lives and symptoms to the CMHWs which were incorporated in the reports provided by the CMHWs to their on-site supervisors. Overall, it appears that clients tolerated CPT-KU despite initial concerns. Most likely, this is because of ongoing adaptations that greatly improved acceptance of this treatment. Moreover, although the randomized clinical trial has ended the therapists have continued to use CPT-KU with their trauma-exposed clients.

Conclusions

This study suggests that the basic principles of CPT are valid, applicable, and acceptable to Kurdish torture services. This

study also suggests that CPT is adaptable for illiterate populations, while maintaining the principle constructs of CPT. CPT-KU appears to have been accepted by the clients. One measure of this is the relatively low rate of drop-out. This is particularly noteworthy given the lack of familiarity with talk therapy prior to this study and the CMHWs initial skepticism about a 12-session talk therapy. The weekly feedback from the CMHWs indicated that clients were returning to subsequent sessions, were completing homework, and were commenting on positive outcomes they believed were because of CPT, all of which are important signs of acceptability and client buy-in. Clearly randomized clinical trial data is necessary prior to determining CPT-KU treatment efficacy as well as acceptability.

The adaptations within CPT-KU required changes in the way components were implemented, and the language used, rather than the basic approach of CPT. For example, homework was still used but was greatly simplified and utilized pictorial cues. Socratic dialogue was retained even though the language labeling it as such was removed from the manual. Many of the trauma-related beliefs identified in CPT-KU were similar to those endorsed by trauma survivors in the US, and thus were easily integrated into the existing CPT framework. Given the basic acceptability of the CPT modules to CMHWs and clients, the study suggests that many of the ways of creating meaning out of traumatic events may apply across cultural groups.

Incorporating time for pilot case was essential and is recommended. Counselors can try the therapy techniques with one or two cases and receive intensive supervision and support. This follows an apprenticeship model of training, whereby training is followed by very close supervision. It recognizes that training counselors consists of a transfer of skills as well as information. Practice cases also provide the platform for counselors to incorporate adaptations and contribute to an ongoing conversation about what further adaptations are needed.

Evidence-based intervention implementation and adaptation cross-culturally is an iterative process that requires patience, flexibility and openness on the part of the trainers, therapists, and supervisors. Because the local counselors had little to no formal mental health training, the trainers needed to simplify slides and training material while attempting to maintain fidelity to the overall treatment model. Differences in client characteristics and/or beliefs required careful consideration by the trainers of the fine line between maintaining fidelity and incorporating flexibility. Solutions required collaborative brainstorming between the trainers, and local supervisors and counselors and resulted in an interactive adaption process.

Through this experience and a review of the supervision and monitoring reports, it appears training CPT-KU was successful. Ongoing consultation and the feedback the US trainers received during the final debriefing suggests that the CMHWs had generally grasped the principles, skills, and techniques of CPT. This suggests that it is feasible to train counselors with little formal mental health training in CPT and to adapt CPT to culture that is qualitatively different from the population on which it was initially formed and developed.

In general, there have been tremendous advances in the development of EBT's to treat mental health symptoms. Therapies like CPT have strong evidence of efficacy. However, the field lags behind in implementing these therapies in places with the highest burden of mental illness. One issue is that relatively little has been written regarding the process of systematically adapting and implementing EBTs for PTSD in low resource settings. Nor has much been published regarding how to train and supervise paraprofessionals in using these interventions. The general strategies and process described in this article may provide methodology useful for adapting other EBTs for other low and medium resource countries or settings.

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