A Common Elements Treatment Approach for Adult Mental Health Problems in Low- and Middle-Income Countries

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This paper describes the Common Elements Treatment Approach (CETA) for adults presenting with mood or anxiety problems developed specifically for use with lay counselors in low- and middle-income countries (LMIC). Details of the intervention development, training, supervision, and decision-making process are presented. Case vignettes are used as examples throughout. Preliminary findings are presented on counselor/supervisor performance and client outcomes from practice cases completed prior to randomized controlled trials (RCT) conducted at two sites for adult survivors of torture and/or systematic violence in (a) southern Iraq and (b) Thailand-Burma border. Data suggest that local supervisors and lay counselors with little prior mental health training or experience maintained fidelity to the model. The majority of pilot clients were retained in treatment, suggesting acceptability. Using the Reliable Change Index (RCI) for each individual we examined the number of clients above a minimal threshold (z > 1.96) for each outcome. In Iraq 100% of clients had RCIs above the threshold for depression and posttraumatic stress, and 81.8% for impaired function. In Thailand, 81.3% of clients had RCIs above minimum threshold for depression, 68.8% for posttraumatic stress, and 37.5% for impaired function. Implementation of CETA is discussed in relation to cultural issues within LMIC. These findings, combined with US-based evidence, suggest that a common elements approach warrants further development and testing as a means for addressing the treatment gap for mental health problems in LMIC.

GLOBAL mental health is an emerging priority in global health initiatives (World Health Organization [WHO], 2008). The burden of mental health disorders accounts for approximately one-third of years lived with disability (YLD) among individuals aged 15 and older (WHO, 2008). Depression is the third leading contributor to the global burden of disease. Despite the high prevalence and cost of mental health disorders, 90% of those with need do not receive treatment (Kohn, Saxena, Levav, & Saraceno, 2004; Wang et al., 2007). Some of the primary barriers to addressing the mental health treatment gap in low- and middle-income countries (LMIC) include: limited mental health infrastructure and policies, funding, and scarcity of mental health professionals (Knapp et al., 2006; Patel, 2009; Saraceno, 2007).

In the last decade, substantial advances have been made in global mental health. A growing body of findings from randomized controlled trials (RCT) and feasibility studies have demonstrated that evidence-based treatments (EBT) can be implemented in LMIC with positive clinical outcomes using a task-shifting approach (i.e., lay workers as counselors; limited formal mental health training; Patel, 2009) (e.g., Bolton et al., 2007; Patel et al., 2010; Rahman, Malik, Sikander, Roberts, & Creed, 2008). EBTs were recommended in the recent WHO (2010) Mental Health GAP Guidelines as front-line interventions. Substantial progress has also been made in overcoming barriers to addressing the global treatment gap (Patel, Chowdhary, Rahman, & Verdeli, 2011). First, the limited mental health workforce has been addressed by task shifting, with training, supervision, and adaptation procedures increasingly described in the literature (Murray et al., 2011; Verdeli et al., 2008). Second, studies have documented the acceptability of EBT cross-culturally, with necessary adaptations to

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However, the singular focus of most EBTs on one diagnostic category (e.g., PTSD, depression) is a barrier to substantially reducing the treatment gap (e.g., Kazdin & Blase, 2011) that has received little attention, and presents challenges in LMIC. First, although singular focused EBT have demonstrated positive outcomes for a wide range of clinical outcomes (e.g., PTSD-focused interventions have a positive impact on depressive symptoms), most of these treatment protocols include limited options or guidance when flexibility is needed to incorporate treatment elements that explicitly target a wider range of symptoms. This is particularly problematic in a context in which mental health providers do not have prior mental health training, background, or experience on which to draw to make decisions on adding elements. Second, support for trainings in multiple EBT is infeasible in most LMIC given limited funding sources and scarce personnel. Related, mastering multiple EBTs and keeping fidelity to each of them is a difficult task even for highly trained individuals. Third, if providers are trained in individual EBT focused on one clinical problem (e.g., depression), a referral system would be needed to link individuals with counselors trained to treat this problem area. Fourth, many studies in LMIC have demonstrated that comorbidity is common with limited distinction among diagnostic categories used in the United States and Europe (Bolton, Surkan, Gray, & Desmousseaux, 2012; Murray et al., 2006; Rasmussen, Katoni, Keller, & Wilkinson, 2011). After these types of qualitative studies, when various EBTs are being considered, the single diagnostic focus of these treatments forces the choice to treat only a certain group among those that need help. For all these reasons, a continued focus only on single-disorder EBT in LMIC may have limitations for substantially reducing the treatment gap.

The need for EBT that can address multiple-disorders/problems has become a part of the clinical and research dialogue in the United States (U.S.), where common elements, or transdiagnostic intervention approaches, are increasingly receiving attention (e.g., Chorpita, Daleiden, & Weisz, 2005; Weisz, Ugueto, Herren, Afienko & Rutt, 2011). Transdiagnostic interventions teach a set of common practice elements that can be delivered in varying combinations to address a range of problems. Decision rules based on research evidence guide selection and sequencing of elements, but allow for flexibility in individual symptom presentation (Chorpita & Daleiden, 2009). Exposure, for example, is the most common element in treatments for anxiety. Therefore, barring any “interference” (Weisz et al., 2012) to conducting exposure (e.g., safety concerns, debilitating anxiety or depressive mood), individuals should begin exposure as early in treatment as possible. Common elements interventions specifically include opportunities for flexibility and adaptation, allowing for treatment without specifying a disorder classification, and include guidance for delivering specific elements to clients with comorbidity.

Data on effectiveness of common element approaches is emerging. A RCT of a common elements approach for children resulted in better outcomes than individual EBT approaches (Weisz et al., 2012). Chorpita and colleagues have a nearly 10-year history of positive outcomes for a common elements approach for anxiety disorders (e.g., Chorpita, Taylor, Francis, Moffitt, & Austin, 2004). Barlow and colleagues developed and are testing a transdiagnostic approach for adults (Barlow, Boisseeau, Ellard, Fairholme, & Farchione, 2008), with promising preliminary results from open trials and a small RCT (Ellard, Fairholme, Boisseeau, Farchione, & Barlow, 2010; Farchione et al., 2012). In the U.S., common elements approaches have been found to be more acceptable to counselors (Borntrager, Chorpita, Higa-McMillan, & Weisz, 2009).

This paper describes the Common Elements Treatment Approach (CETA), a transdiagnostic intervention for adults presenting with mood and/or anxiety problems, developed specifically for use in LMIC. Like other common elements approaches, CETA is not conceptualized as a “new” intervention, but rather a new approach to training lay counselors—one focused on common elements of EBT and decision making for treatment focus, element selection, sequencing and dosing. The focus of this paper is on the development of CETA, the training and supervision, and the clinical decision-making processes. CETA was recently tested in two large RCTs, one in southern Iraq and one at the Thailand-Burma border with displaced Burmese. This paper subsequently describes the implementation of CETA in these two sites, where, due to funding and the research focus, the population was trauma/torture-affected adults. We also present preliminary findings on counselor/supervisor performance and client outcomes from pilot cases completed prior to each RCT.

**Methods**

**Intervention Development**

Development of CETA was based on a literature review of EBT and other common elements approaches. For LMIC, development required consideration of two main challenges. First, given the unavailability of a skilled mental health workforce in LMIC, developing CETA materials and the training involved using a simple, concrete format to ensure that local lay counselors with little or no previous mental health training could learn and implement the components. Second, as reliance on higher-level mental health professionals for clinical decision-making is usually not feasible in LMIC,
development of CETA included teaching supervisors and lay counselors the method for (a) assessing the primary focus, (b) choosing specific elements and their order, and (c) determining element dose (in addition to teaching the elements themselves).

CETA was developed to focus on three common mental health problems in LMIC: depression, traumatic stress, and anxiety. An existing analysis of elements shared across EBT for these problem areas was reviewed to develop a list of the most effective components for each

<table>
<thead>
<tr>
<th>Component</th>
<th>Simplified Name</th>
<th>Description</th>
<th>Rationale for Inclusion</th>
</tr>
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</table>
| Engagement | Encouraging Participation | • Specific attention to perceptual and concrete obstacles to engagement  
• Linking program to assisting with client's problems  
• Includes family when appropriate or necessary for client participation | • Attention to engagement, particularly perceptual barriers (stigma, concerns of inefficacy), linked to better retention in treatment  
In these sites, family engagement/permission was a potentially important addition per local counselors and supervisors |

| Anxiety management strategies | Relaxation | • Learn strategies to improve physiological tension/stress  
• Employment of existing strategies for tension/stress  
• Offered deep breathing, meditation, progressive muscle relaxation, and imagery. Others added by local cultures. | • Included in EBT for trauma exposure and anxiety as a specified or an optional component  
Included as optional in CETA for these sites |

| Behavioral Activation | Getting Active | • Identifying and engaging in pleasurable, mood-boosting, or efficacy-increasing activities | • One of the most effective CBT components/foci for treating depression  
Included as optional in CETA |

| Cognitive Coping/ Restructuring | Thinking in a Different Way – separated to Part I and Part II | • Understand the association between thoughts, feelings, and behavior  
• Learn to evaluate and restructure thinking to be more accurate and/or helpful | • Common and effective element of EBT CBT for depression, anxiety, and trauma exposure |

| Imaginal Gradual Exposure | Talking about Difficult Memories | • Facing feared and avoided memories (details and associated thoughts and feelings)  
• Gradual desensitization/exposure | • Aspects of imaginal exposure included in all EBT for symptoms related to trauma exposure (variation across EBT in method)  
Included in all cases at these sites due to trauma history |

| In Vivo Exposure | Live Exposure | • Facing innocuous triggers/reminders in the client's environment  
• Gradual desensitization/exposure | • Included in many EBT for symptoms related to trauma exposure and for all EBT for anxiety disorders  
Included as optional |

| Suicide/Homicide/ Danger Assessment and Planning | Safety | • Assessing client risk for suicide, homicide, and domestic violence  
• Developing a focused plan with the client and client's family (when appropriate)  
• Additional referral/reporting when needed | • Particularly important area of training for lay counselors, without prior former mental health training and experience  
Used in varying degrees in each case |

| Screening and Brief Intervention for Alcohol | Alcohol Intervention | • Utilizes concepts of Motivational Interviewing to get client buy-in to change substance use/abuse behavior. | • Added as optional in CETA only to Thailand site based on qualitative data that alcohol abuse was a significant problem |
Training Materials

To simplify training materials, each component has a 1–5 page “manual” section and a 1–2 page “steps sheet.” The steps sheets include both goals and example wording for many goals, to provide extra guidance for lay counselors. Step sheets were designed for use when practicing and preparing for sessions and also during sessions. Core, cross-cutting cognitive-behavioral strategies were included in each component (e.g., Sburlati, Schniering, Lyneham, & Rapee, 2011): (a) the “what” (e.g., element) and “why” (e.g., rationale); (b) in-session, guided practice of elements (modeling; role-plays); (c) weekly homework assignment/review and problem-solving completion barriers; and (d) weekly symptom monitoring. All training materials are designed to be iteratively tailored using local counselors’ and supervisors’ feedback both during and after training.

Component Selection and Sequencing

The selection and ordering of elements for problem areas involved integrating findings from existing EBT for adult PTSD, anxiety, and depression treatment (for review see Foa, Keane, Friedman, & Cohen, 2009; Hersen & Sturme, 2012; Springer, Rubin, & Beavers, 2011). EBTs for PTSD include imaginal exposure and/or in vivo exposure (e.g., places, sounds) and/or cognitive restructuring. Some, but not all, PTSD treatments include or offer optional anxiety-management strategies (e.g., relaxation, breathing retraining). Depression-focused EBTs are predominantly focused on cognitive restructuring or behavior activation and interpersonal relationships. In development of CETA, a variety of “default” flows were created for the primary problem areas in order to simplify this process.

As developed, the elements used in CETA vary depending on the client’s symptom presentation. Local supervisors and counselors are taught strategies for identifying the primary problem area(s) for each client (e.g., traumatic stress and depression, predominantly depression). This process is data-driven, with decisions based on three sources: (a) client responses on locally validated assessment measures; (b) clinical presentation (e.g., “what you see and hear” from the client); and (c) discussion with the local supervisor, who in turn consults with a CETA expert trainer (Murray et al., 2011). These discussions allow selection of a “default order,” based on the primary presenting problem, for the counselors to follow. Counselors are taught to use the weekly symptom monitoring to inform dose for each component and any areas of “interference” when an additional element might need to be added.

During training, brief case vignettes are presented, some with assessment results, to allow counselors to practice element selection, sequencing, and dosing (see examples below). Counselors work in small groups to select and sequence cards of the CETA elements for each case vignette. This activity allows for building critical thinking around CETA. Trainers circulate among the groups to observe progress, give feedback, and to understand the counselors’ thought process when counselors alter the “default” sequences. This allows for “flexibility within fidelity” (Kendall & Beidas, 2007), which is particularly important given the culturally different contexts.

Sample Training Vignette A: Your client witnessed her husband’s murder in Burma and has been in Thailand for 2 years. Her scores and statements to you indicate traumatic stress symptoms (e.g., thinking a lot about the murder, fear). On the assessment, her scores do not show nervousness or avoidance of a feared place. She also seems very sad and tired. She is not working and tells you that many days she just stays home by herself, sleeping and not getting dressed to go out.

For this example, trainers would first ask what the primary problem area is, and what the “default” order of CETA would be (see Figure 1 for “default” trauma order). Counselors are then asked what additional component might be added given the “interference” (i.e., limited energy). Figure 1 shows the addition of Behavioral Activation (BA) early in treatment to provide the client with some initial symptom relief. BA activities could continue throughout treatment, and may make it easier for the client to participate in imaginal exposure.

Sample Training Vignette B: Your client’s scores show sadness and trouble sleeping, among other depression-like symptoms. There is no indication of any traumatic experience. In speaking with the client, you learn that she stays by herself most of the time, and is full of shame due to her “situation” (explained as being HIV-positive and very poor).

Trainers would ask counselors to demonstrate the “default” order, displayed in Figure 1, which includes
components for the primary problem of depression alone (i.e., behavioral activation and cognitive work).

The primary problem may be identified as traumatic stress and anxiety (see Figure 2 for “default” flow). Anxiety management strategies would be added to decrease his day-to-day physiological symptoms that are hindering his functioning and would likely make exposure difficult. The trainer might then ask what additional component could be added if the client continues to avoid security checkpoints that are known to be safe. Figure 2 shows how LIVE exposure may be added given the fear of checkpoints.

**Sample Training Vignette C**: Your client was arrested at a security checkpoint in Iraq and taken to prison where he spent 5 grueling days being questioned and tortured. He was moved to another prison and held there for another year. Your assessment form shows that he endorsed items for traumatic experiences and was high on local posttraumatic stress items. He also was very high on the assessment for general anxiety items such as trembling, nervous, and jumpy. Upon meeting the client, he complained of being so anxious that he cannot sit down at dinner with his family. He also said he has not been able to find work because he is afraid of all security checkpoints so has not been able to get to any of his interviews.

The primary problem may be identified as traumatic stress and anxiety (see Figure 2 for “default” flow). Anxiety management strategies would be added to decrease his day-to-day physiological symptoms that are hindering his functioning and would likely make exposure difficult. The trainer might then ask what additional component could be added if the client continues to avoid security checkpoints that are known to be safe. Figure 2 shows how LIVE exposure may be added given the fear of checkpoints.

**Sample Training Vignette D** (same client as above): You have just completed your second session of “Talking about difficult memories” (GE Imaginal) discussing his torture in prison. At the end of session, his rating for distress is still around a 7. What would you do in the following session?

Figure 2 shows the same flow as above, but begins to work on dosing of elements. Given the high rating of distress after two sessions, counselors would continue with the same component to continue decreasing distress before moving on.

**Pilot Studies**

The first two sites in which CETA was implemented and tested were focused on a trauma/torture-exposed population due to the funding source. Given the flexibility of CETA, these studies used the same manual, but all individuals started with the “default” orders that include posttraumatic stress (PTS): (a) PTS primarily, (b) PTS + depression, (c) PTS + anxiety, or (d) PTS + depression + anxiety. Thus, for these initial pilots, all participants received imaginal exposure. CETA decision-making guidelines were
used by lay counselors to determine dosing and if additional components needed to be added due to interference.

Training

Lay counselors and supervisors together received 2 weeks of training by the first two authors and one assistant trainer following the Apprenticeship Model (Murray et al., 2011). Briefly, the Apprenticeship Model is a staggered training approach that begins with an active in-person training, followed by practice and supervision by local supervisors, who themselves are closely supervised by trainers. Training was provided in English with simultaneous translation to the local language (e.g., Arabic; Burmese). Training included substantial practice with coaching and feedback (e.g., multiple role-plays each day), experiential activities (e.g., trying the cognitive triangle on a situation in their own lives), and the “card sort” game. Cross-cultural adaptation by the local counselors and supervisors is built in throughout the Apprenticeship Model. In the training, discussions and observations of role-plays led to suggestions for restating the steps and for tailoring analogies and example situations to the local context. Materials were then revised after the training, tailored to each local site. For example, we often explain the rationale for imaginal exposure using the analogy of cleaning out a wound. During the Iraq training, counselors talked about the fear that women have when they learn to make bread (as it is cooked on an open fire), but that bread making is critical for the family. With repeated practice, the fear of the open fire subsides gradually and then disappears. During the training in Thailand, we asked about common situations someone might experience so that these situations could be used when teaching cognitive coping. Counselors mentioned the common experience of a sandal breaking and having to walk home with the broken

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**Figure 2.** Examples of component order according to problem area.

<table>
<thead>
<tr>
<th>Safety</th>
<th>Traumatic stress + Anxiety&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Traumatic stress + Anxiety + interference of avoidance&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Dosing example&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Encouraging Participation</td>
<td>Encouraging Participation</td>
<td>Encouraging Participation</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>Introduction</td>
<td>Introduction</td>
</tr>
<tr>
<td></td>
<td>Relaxation</td>
<td>Relaxation</td>
<td>Relaxation</td>
</tr>
<tr>
<td></td>
<td>Thinking in a Different Way Part I</td>
<td>Thinking in a Different Way Part I</td>
<td>Thinking in a Different Way Part I</td>
</tr>
<tr>
<td></td>
<td>Thinking in a Different Way Part II</td>
<td>LIVE Exposure</td>
<td>LIVE Exposure</td>
</tr>
<tr>
<td></td>
<td>Thinking in a Different Way Part II</td>
<td>Thinking about Difficult Memories</td>
<td>Thinking about Difficult Memories</td>
</tr>
<tr>
<td></td>
<td>Finishing Steps</td>
<td>Finishing Steps</td>
<td>Finishing Steps</td>
</tr>
</tbody>
</table>

<sup>a</sup> Default order when the primary problem areas are traumatic stress and anxiety

<sup>b</sup> Order if primary problem areas are traumatic stress and anxiety PLUS the addition of LIVE exposure due to avoidance of a specific place that is affecting the individual’s ability to function.

<sup>c</sup> Order from Column 3, with additional information that the client has a high rating of distress after 2 sessions of Thinking about Difficult Memories, so would do a third session of this element.
In Thailand only, due to qualitative study results, a brief intervention for alcohol use was added to the components. The alcohol intervention was only focused on substance use, and followed procedures for Screening and Brief Intervention (SBI; Babor & Higgins-Biddle, 2001) in primary care settings, in which clients are provided with some brief feedback on their drinking based on scores from the Alcohol Use Disorders Identification Test (AUDIT). Using Motivational Interviewing (MI) strategies, the counselor asks what the client thinks about this and what he or she knows about problems associated with drinking. The counselor then asks for permission to talk a little more about drinking. In the “spirit” of MI, the choice to make a change in drinking habits was up to the client.

Training counselors in using SBI was challenging, given the nondirective, and inquiring stance required, which is different than a CBT approach. Training counselors in SBI required additional review, practice, and revision of materials after early role-plays. When a client would receive SBI (three pilot cases in Thailand), trainers conducted a lengthy role-play with the supervisor by phone/Skype, where first the trainer and then the supervisor took the role of the counselor. The supervisor then did the same thing with the counselor.

Counselors

In Iraq, counselors (N = 12) were predominantly medics or nurses by training and provided a range of health services for the Ministry of Health, including some counseling. In Thailand, counselors (N = 20) were identified by one of three local partner organizations as individuals interested in becoming counselors (n = 4 had past counseling experience). In both sites, counselors were 18 years of age or older. Additional desired characteristics sought by our local partners were an interest in mental health, strong interpersonal skills, and motivation to learn.

Supervisors

In Iraq, supervisors (N = 2) were psychiatrists who specialized in pharmacological approaches to mental health treatment. In Thailand (N = 3), one supervisor was a medical doctor; two had no prior counseling experience or advanced degrees. An additional identified supervisor did not continue in this role due to limited English proficiency and feeling overwhelmed with supervision responsibilities. During training, supervisors received an additional 1.5 to 2.5 hours of training each day focused on supervision (Murray et al., 2011).

Assessment

Before this pilot phase, assessment questionnaires were developed and validated in each of the respective study sites following the Design, Implementation, Monitoring and Evaluation process of the Applied Mental Health Research group (http://www.jhsph.edu/research/centers-institutes/center-for-refugee-and-disaster-response/response_service/AMHR/; unpublished reports; Bolton & Weiss, 2010; Haroz et al., 2011). The complete Iraq questionnaire consists of a total of 123 questions, scored 0–3, that assess symptoms of depression and anxiety (Hopkins Symptom Checklist (HSCL); Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974), posttraumatic stress symptoms (Harvard Trauma Questionnaire (HTQ); Mollica et al., 1992), and other locally relevant psychosocial symptoms including function impairment (see Bolton & Tang, 2002). In Thailand, the complete questionnaire includes 163 questions, scored 0–3, includes 163 questions scored 0–3, that assess symptoms of depression and anxiety using the same measures as in Iraq (i.e., HSCL, HTQ), as well as anger (Aggression Questionnaire; Buss & Warren, 2000) and alcohol use (Alcohol Use Disorders Identification Test; Saunders, Aasland, Babor, De La Fuente, & Grant, 1993). The full assessment questionnaires were administered at baseline and follow-up by an independent interviewer. A brief symptom monitoring list (12 items), a subset of items from the questionnaires, was administered at the beginning of each session by the counselor to monitor symptoms.

Pilot Client Participants

All pilot clients were survivors of systemic violence and/or torture and were predominantly a convenience sample (Iraq: N = 12; Thailand: N = 22). Pilot cases were recruited from individuals who participated in the above-mentioned validity studies (unpublished report; Bolton & Weiss, 2010; Haroz et al., 2011). Pilot clients were screened to assure they met the proposed RCT enrollment criteria (i.e., a traumatic experience and moderate to severe symptoms of traumatic stress and/or depression determined by scores above established thresholds on the HSCL and HTQ) to ensure that counselors delivered the intervention to individuals with clinical needs. The first individuals who met the inclusion criteria were accepted until each counselor had one pilot case. Exclusion criteria included those who were actively suicidal, homicidal, or psychotic. Pilot cases received CETA prior to the commencement of RCTs in both sites. This study was approved separately from the RCTs by the Johns Hopkins Bloomberg School of Public Health IRB after the pilot phase was completed.

Analysis

The authors drew on observations during training and a review of supervision records to describe the experience of CETA training and supervision during the pilot phase, and assess fidelity to the model. Treatment retention and completion of pilot cases was examined as an additional measure of acceptability. To examine pilot client clinical
symptoms over time, we used the Reliable Change Index (RCI) and calculated the percentage of each sample with an RCI value above the minimal threshold (z > 1.96) for symptoms of depression, posttraumatic stress and impaired functioning (Jacobson & Truax, 1991). The RCI provides a measure of clinical significance as it indicates whether change is likely to be real or simply due to imprecision in measurement (Jacobson & Truax). Test-retest reliabilities from the previous validation studies of each of the assessment questionnaires were used in the RCI calculations. In addition, weekly monitoring scores are graphed across all sessions, separately by site to demonstrate symptom change over time for the pilot clients.

**Results**

**Performance of Supervisors and Counselors**

The five supervisors (Iraq = 2; Thailand = 3) all showed adequate uptake of the model in the training evidenced by skills demonstrated in role-plays, “catching” errors of counselors, and being able to explain how to do a component or redirect a counselor in a role-play. Supervision calls were done via Skype (no video) when possible, or mobile phones, when Internet was weak. One supervisor in Iraq attended all scheduled supervision calls with the U.S.-based trainers; a second supervisor missed two calls during pilot cases (out of 14) due to travel. In Thailand, all three of the supervisors participated in all supervision calls with U.S. trainers. All supervisors were asked to take at least one pilot case themselves. Both Iraqi supervisors had a case, but due to challenges of far distances to travel to their places of work, neither supervisor completed their pilot case. All three supervisors in Thailand took on a case and 2 completed them; 1 supervisor did not complete the case. For pilot clients, local supervisors provided direct supervision with a significant amount of clinical direction from the trainers. Review of weekly call notes between trainers and local supervisors suggests that supervisors were able to maintain reasonable counselor fidelity to the model as evidenced by guiding correct “order” and “dosing” of components and assuring completion of the documented goals of each component.

All but one counselor in each site demonstrated adequate base-level skills through role-plays at completion of training. Trainers and local supervisors observed counselors in role-plays daily, took notes, and discussed who was struggling and a plan to help them. In both these cases, the counselors were not able to follow the steps sheets for the elements, despite repeated practice. In both sites, the responsibilities of the counselor who performed poorly were shifted to outreach and promotion of CETA in the local communities. Following practice groups in Thailand, only four counselors needed additional practice before taking a pilot case (approximately one extra month). All counselors in Iraq started pilot cases at the same time. Local supervisors’ and trainers’ notes suggest good fidelity to the model, as evidenced by moving from one component to the next and completing most of each component’s steps. During pilot cases, some counselors needed to re-conduct a missed step(s) of an element or needed to repeat certain steps or elements due to a client not understanding—both of which are normal for trainees in a new intervention. For example, three counselors in Iraq had to repeat the Cognitive Coping element because they were changing the situation for the cognitive triangle (as opposed to encouraging client to change thinking about the same situation). Following completion of the pilot cases, one counselor in Iraq did not continue providing CETA due to inability to incorporate supervisory suggestions, resulting in insufficient competency in the intervention. In Thailand, local supervisors determined that two counselors needed a second pilot case prior to participating in the RCT to continue skill-building. After a second case, both were found to be competent and continued as counselors.

**Cross-Cultural Findings**

Context and cultural modifications were made in each site. All counselors adhered to the goal of balancing fidelity (i.e., adherence to core element goal—monitored by trainers) and flexibility (i.e., variation in implementation to fit with the culture) (Kendall & Beidas, 2007). For example, for relaxation, the goal of reducing physiological stress was achieved through different methods in each site. In Thailand, many counselors used meditation and deep breathing in ways that were familiar to the people in their community and some Buddhism-based practices, in addition to strategies taught in the training. In Iraq, anxiety-management strategies were implemented primarily using the techniques taught in the training. Engagement also looked differently across sites once cases started. In Iraq, counselors began describing the difference between therapy and medication, the advantages to therapy, and that this was a newly offered, “prestigious program.” Supervisors explained that in their culture, it was easy and common to ask for medication for mental health problems. In Thailand, counselors and supervisors had to try many different ways to engage those for whom this therapy was appropriate and challenge fears that treatment was only for “crazy” people who were psychotic. These strategies included radio shows, a community drama, calling the intervention a “program” and not a treatment, and providing “a spoonful” of treatment (e.g., doing a brief cognitive triangle) during the intake interview, to show what the program involved. Another cultural difference for both sites had to do with gender roles. In Thailand, mixed gender therapist-client pairs were acceptable. In Iraq, however, if there was a mixed gender pairing, an additional counselor was present at all sessions. Male counselors were also not able
to call female counselors, and female counselors were not allowed to travel without a male companion, making logistics challenging.

**Pilot Cases: Descriptive Analyses**

In Iraq, there were 12 pilot cases, 25% female with a mean age of 45.04 (SD = 6.51) and mean grade level of secondary. In Thailand, there were 22 pilot cases, 77% were female with a mean age of 36.68 (SD = 10.5) and average grade level completed of high-school. In Iraq, clients attended an average of 10.8 (range: 5–13) weekly sessions during the study period with our lay counselors. In Thailand, participants attended an average of 9.5 (range: 4–15) weekly sessions. In Thailand, all pilot cases were retained in treatment. In Iraq, all but one pilot case completed treatment. In both Iraq and Thailand, all clients received Introduction, Thinking in a Different Way Part I, Talking About Difficult Memories, Thinking in a Different Way Part II, and Finishing Steps. Thus, all clients in these pilot studies received psychoeducation, cognitive restructuring, and imaginal exposure. All clients received at least two sessions of Thinking about Difficult Memories and of Thinking in a Different Way Part II, with a maximum of up to four of one or the other. In Iraq, the most commonly added components were anxiety-management strategies and live exposure. In Iraq, 5 of the 12 pilot cases received live exposure, 5 received anxiety management strategies, and 1 received BA (this pilot case received both BA and anxiety-management strategies). In comparison, in Thailand, the most commonly added components were BA and SBI (an element added specifically for the Thailand population to address substance use). Three of 15 pilot cases received SBI (two males, one female), 4 clients received BA, and only 3 received live exposure.

**Preliminary Findings on Effects of Treatment**

In evaluating symptom improvement pre- to post-treatment, the data come from 11 of 12 pilot cases in Iraq who had complete baseline and follow-up assessments (N = 1 dropped out for unknown reason). In Thailand, data were from 16 of 22 pilot cases with completed assessments at both time points. Six pilot cases did not participate in the follow-up assessment, despite completing treatment (N = 3 moved out of the area; N = 2 were recovering from motorcycle accidents; N = 1 became ill). In Iraq, 11 (100%) clients had RCIs above the minimal threshold (z > 1.96) for both depression and posttraumatic stress, and 9 (81.8%) clients for impaired functioning. In Thailand, 13 (81.3%) clients had RCIs above the minimal threshold (z > 1.96) for depression, 11 (68.8%) for posttraumatic stress, and 6 (37.5%) for impaired function. Figures 3 (Iraq) and 4 (Thailand) present the average symptom scores and their standard deviations for all pilot clients, for each treatment session.

**Discussion**

A growing research base demonstrates that EBTs are transportable, adaptable, acceptable, and effective in LMICs (e.g., Bolton et al., 2007; Patel et al., 2011; Rahman et al., 2008; Verdeli et al., 2008). This paper describes a common elements approach, CETA developed specifically for use

![Figure 3. Average weekly symptom scores over sessions (Iraq).](image-url)
with lay counselors in LMIC. We chose this approach for LMIC for three reasons. First, CETA is flexible and developed to guide the management of comorbidity within a single treatment approach (e.g., Mansell et al., 2008). Although single-focus EBT often result in decreased symptoms beyond the target focus, there is limited guidance within the manuals for how to handle comorbidity: what could be added, when it should be added, and in what dosage. A common elements approach, as laid out here, may better equip a lay counselor with the skills to effectively treat the client’s symptoms and manage “interference.” Second, CETA offers the potential to reduce the time and resources required to train on EBT by teaching a set of components for varying presenting problems within a single framework. For populations in which an array of problem areas are present, a common elements approach offers a potentially more cost-effective option by preventing the need to train in multiple EBTs, increasing the availability of EBTs across problem areas, and ideally helping to reduce the treatment gap in LMIC. Of course, single-focus approaches may be warranted in settings in which one primary problem prevails.

Finally, CETA helps address the ongoing debate about the cross-cultural relevance of DSM-IV and ICD-11 diagnostic categories, including whether or not diagnosis is universalistic or relativistic (Robins & Guze, 1970; Rutter & Nikapota, 2002). In order to choose an appropriate intervention, decision makers are often required to focus on one problem area when attempting to select a specific EBT. For example, a qualitative study may show problems that fall under the DSM-IV or ICD-11 diagnoses of depression, anxiety, and traumatic stress with no clear differentiation among these symptoms (i.e., no single local syndrome that approximates a DSM-IV disorder). To choose a uni-dimensional EBT, one would have to deliberately choose which DSM-IV diagnosis or cluster of symptoms on which to focus (e.g., Interpersonal Therapy for Depression), as current EBTs are largely circumscribed by DSM-IV and ICD 11 nosology. A common elements approach provides an alternative in which researchers/programs can flexibly address a wider range of symptoms without being circumscribed by diagnosis (Clark & Taylor, 2009). Given the substantial mental health treatment gap in LMIC, treatment alternatives that are not reliant on diagnoses may be desirable.

In this paper, we first presented the development, training, and process of element selection, sequencing, and dosing of CETA. Development of CETA was informed by existing common elements approaches, but differs from existing studies in that (a) the number of components or common elements was kept to a minimum (Iraq: 8; Thailand: 9) compared to U.S. versions (e.g., MATCH-ADTC; Chorpita and Weisz, 2009; 33 modules); (b) materials were designed specifically for use by lay counselors as part of a task-shifting model (e.g., steps sheets); and (c) CETA included both teaching the elements and explicitly teaching the decision-making rules for determining selection.
sequencing, and dosing (as opposed to management by highly trained professionals).

The second part of this paper described two pilot projects in diverse settings using CETA for trauma-affected populations. All but one counselor in each site were deemed to have learned CETA well enough to provide treatment in the RCT, providing initial support for feasibility and acceptability at the provider level across two diverse contexts and cultures. Supervisors were able to coach counselors and demonstrate comprehension of CETA as evidenced by selection, sequencing, and dosing decisions they suggested on each case. Counselors and supervisors showed acceptable fidelity to the model based on correct order of elements and appropriate implementation with normal errors during the learning phase. It is important to acknowledge that their success is partly due to the implementation processes. As detailed previously, the Apprenticeship Model includes weekly supervision calls reviewing detailed information on each case, which largely prevents any major drift from the model. The use of detailed steps sheets also helps to assure fidelity. In future studies, fidelity to the model should be measured more formally and systematically. Except for the one case in Iraq, pilot clients were retained in treatment, which suggests preliminary acceptability.

Analyses of preliminary pilot data showed clinical significance as measured by the RCI. In Iraq, session-by-session data showed a temporary increase at around session 8 that could be due to characteristics of this site (e.g., an area of higher trauma exposure; ongoing bombings in the area). Notably, following this increase, symptoms continued to decrease again. These preliminary data showing symptom reduction are promising, but should be interpreted cautiously. The pilot phases were uncontrolled, with no comparison to control for regression to the mean or symptom improvement over time due only to attention. In addition, the sample sizes were small and chosen by convenience without regard to representativeness, limiting the generalizability of findings. Furthermore, in both sites, weekly symptom data were collected by the counselor who provided treatment, which may have introduced social desirability bias. In Iraq, the treating counselor also administered the follow-up assessment, whereas in Thailand the follow-up assessment was completed by an independent study member uninvolved in treatment. Finally, calculations of RCIs depend on having an accurate and locally applicable measure of reliability. The test-retest reliabilities used for RCI calculations for pilot cases were taken from previous validation studies in the local context, which enhances local applicability of the scales’ psychometric properties. However, test-retest reliabilities in the validation studies were established over a 2- to 5-day time frame, whereas RCIs calculated for pilot cases involved a 2- to 4-month time frame. Results of the forthcoming CETA RCTs, both of which include procedures that address all of these shortcomings, will provide the first rigorous tests of the effectiveness of CETA in two culturally and contextually diverse sites.

A few challenges encountered in our studies warrant discussion. First, local supervisors had difficulty finding and/or finishing a pilot case. We were successful for 2 out of 3 in Thailand, perhaps partly because the supervisors were very closely linked with the community and the populations served. In Iraq, the supervisors were employed at separate organizations (i.e., hospital), with the implementing partner (i.e., Ministry of Health clinics in the community) located 15 to 40 kilometers from the supervisors’ place of work. Thus, the supervisors had to independently find a case that was appropriate. Feedback received from all supervisors suggested time as the primary barrier to not completing a pilot case. All supervisors held time-intensive jobs, which now included supervising all the new CETA counselors. Greater efforts pre-implementation should be made to assure completion of a pilot case is possible. Future studies should define what type of supervisor may be successful even without a pilot case, and how much experience a supervisor needs with a model before they can effectively perform in the supervisor role. Other barriers from the projects across both sites were mainly organizational and logistical, such as transport, personnel problems, culture and climate, and buy-in (Aarons & Sawitzky, 2006; Aarons, Sommerfeld, & Walrath-Greene, 2009; Green & Aarons, 2011). Future research is needed to examine organizational facilitators and barriers (Glisson et al., 2012).

Finally, there were many lessons learned throughout the development and initial pilot of CETA. During development, we expected that the most challenging skill to teach lay counselors would be element selection, order, and dosing. In these first two pilot sites, we did not experience this difficulty as evidenced by frequent (and often quick) correct selection, sequencing, and dosing during the “card sort” activity in training by most counselors. However, this may have been the case because the full flexibility of a model like CETA was truncated by nature of the inclusion criteria of torture/trauma survivors. A limitation of these pilot cases is that CETA was evaluated in trauma-affected populations, so additional studies with broader populations, including individuals who do not need trauma-specific elements, are needed. Another lesson learned, anecdotally, is the advantage of the Apprenticeship Model in supporting fidelity. This model includes weekly monitoring by both a local supervisor and trainer, affording corrections in treatment course if fidelity is compromised. Finally, having an initial pilot case stage that is completed prior to the RCT aided in clinical understanding of the population (i.e., what variations of symptoms are present) and counselor practice using the model with only one case
that could be closely supervised to understand the additional training needs of lay counselors.

**Conclusion**

A common elements approach, CETA, offers promise for scaling up delivery of mental health services for individuals with need in LMIC. We hope that this paper adds to the limited literature describing treatment development, training, and supervision processes implementing EBT in LMIC. The pilot of CETA in two sites suggests that local supervisors and counselors can learn the elements and decision-making rules with ongoing supervision, further supporting the idea of task shifting. The preliminary positive clinical outcomes, combined with growing U.S.-based evidence, suggest that a common elements approach may be a feasible, acceptable, and potentially effective alternative for addressing mental health problems in LMIC. Findings from the recently completed RCTs in Iraq and Thailand show positive results (Murray, Dorsey, & Weiss, 2012). The field would benefit from additional trials on an intervention like CETA, while simultaneously examining implementation facilitators and barriers to EBT mental health provision in LMIC.

**References**


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