

6-14-2019

# Key Expressions of Posttraumatic Distress in Cambodian Children: A Step Toward Culturally- Sensitive Trauma Assessment and Intervention

Caleb J. Figge

*DePaul University*, CALEB.FIGGE@GMAIL.COM

---

## Recommended Citation

Figge, Caleb J., "Key Expressions of Posttraumatic Distress in Cambodian Children: A Step Toward Culturally-Sensitive Trauma Assessment and Intervention" (2019). *College of Science and Health Theses and Dissertations*. 303.  
[https://via.library.depaul.edu/csh\\_etd/303](https://via.library.depaul.edu/csh_etd/303)

This Dissertation is brought to you for free and open access by the College of Science and Health at Via Sapientiae. It has been accepted for inclusion in College of Science and Health Theses and Dissertations by an authorized administrator of Via Sapientiae. For more information, please contact [wsulliv6@depaul.edu](mailto:wsulliv6@depaul.edu), [c.mcclure@depaul.edu](mailto:c.mcclure@depaul.edu).

Key Expressions of Posttraumatic Distress in Cambodian Children: A Step Toward Culturally-Sensitive Trauma Assessment and Intervention

A Dissertation

Presented in

Partial Fulfillment of the

Requirements of the Degree of

Doctor of Philosophy

By

Caleb J. Figge

June, 2019

Department of Psychology

College of Science and Health

DePaul University

Chicago, Illinois

**Dissertation Committee**

Cecilia Martinez-Torteya, Ph.D., Chairperson

Bernadette Sanchez, Ph.D.

Ida Salusky, Ph.D.

Jessica Jerome, Ph.D.

John Mazzeo, Ph.D.

## **Acknowledgements**

I would like to express my sincere gratitude and appreciation to Cecilia Martinez-Torteya for her consistent support, wisdom, and mentorship throughout this process. I am also deeply thankful for the opportunity, warmth, and guidance provided by the Transcultural Psychosocial Organization (TPO) Cambodia team, including but not limited to: Dr. Sotheara Chhim, Ms. Sopheap Taing, Mr. Lun Lao, Ms. Chanveasna Phan, Ms. Mark Savy, and Mr. Chandarey Vong.

Additionally, I wish to thank the mental health professionals at TPO Cambodia, The Cambodian Children's Trust, and Komar Rikreay for taking time to share their insights and for their commitment to improving the wellbeing of Cambodian families. This project would not be possible without the courage and openness of the children and caregivers to share their experiences; their resilience and kindness in the face of adversity is remarkable. Finally, I am lucky to have wonderfully supportive friends and family.

## **Biography**

The author was born in Salt Lake City, Utah, October 23<sup>rd</sup>, 1990. He graduated from Park City High School and received his Bachelor of Science degree in Psychology from the University of Utah in 2012. He received his Master of Arts in Clinical-Child Psychology in 2015 from DePaul University in Chicago, Illinois, and is currently pursuing a PhD in Clinical-Child Psychology at DePaul University. He will complete his pre-doctoral residency at Children's Hospital of Philadelphia.

## Table of Contents

Study 1: Key Expressions of Posttraumatic Distress in Cambodian Children: A Step Toward Culturally-Sensitive Trauma Assessment and Intervention..... 1

Abstract..... 2

Introduction..... 3

Methods..... 9

Results..... 11

Discussion..... 12

References..... 22

Study 1 Tables..... 29

Study 2: Key Expressions of Posttraumatic Distress in Cambodian Children: Clinician Perspectives on Cause, Impact, and Treatment ..... 35

Abstract..... 36

Introduction..... 37

Methods..... 42

Results..... 45

Discussion..... 52

References..... 58

Stage 2 Tables and Figures ..... 65

Delet

## Study 1

### **Key Expressions of Posttraumatic Distress in Cambodian Children: A Step Toward Culturally-Sensitive Trauma Assessment and Intervention**

### **Abstract**

More than half of all children in Cambodia experience direct abuse and over 70% other traumatic events, which significantly increase risk for a range of physical and mental health problems. Additionally, Cambodian children face longstanding sociopolitical, intergenerational, and cultural factors that compound the impact of direct victimization. As a result, rates of posttraumatic stress symptoms among Cambodian youth are high. However, care providers often rely on Western-based nosology that does not account for culturally specific expressions of trauma. Lack of knowledge surrounding the expressions of distress that best represent the experience of traumatized Cambodian children hinders diagnostic accuracy and treatment effectiveness. To address this problem, the current study utilized a qualitative design to interview 30 Cambodian caregivers of children with trauma experiences and 30 Cambodian children (ages 10–13 years) with trauma experiences to identify key local expressions of trauma. Findings reveal certain PTSD symptoms and culturally specific frequent and severe posttraumatic problems for Cambodian children and domains of functioning impacted by trauma. Certain symptoms seem particularly important to evaluate in this group, such as anger, physical complaints (e.g., headache and palpitations), and cognitive-focused complaints (in particular, “thinking too much”). All caregivers and children reported physical health as impacted by posttraumatic problems, highlighting a particularly salient domain of functioning for this population. Expressions of distress explored in the current study are discussed in the context of assessment and intervention development to inform diagnostic and clinical efforts for those working with trauma-exposed Cambodian children.

## Introduction

The impact of trauma and posttraumatic stress is particularly problematic for populations with high rates of traumatization following war and genocide, such as in Cambodia. Children in Cambodia continue to face disproportionate rates of traumatic experiences and posttraumatic stress, with recent estimates of over 70% having experienced a traumatic life event (Schunert et al., 2012). In a study of 2,376 Cambodians conducted by UNICEF Cambodia (Ministry of Women's Affairs, 2013), over half experienced physical violence before the age of 18 (52.7% for females, 54.2% for males) with over 80% of those with experiences of physical violence reporting multiple incidents. Family violence is also common. In 2000, 25% of women had been victims of emotional, physical, and/or sexual abuse from their husbands, which is likely an underestimate given underreporting (McCue, 2008). In addition, 67.5% of Cambodian families report hitting children (other than spanking) is an acceptable form of disciplinary action (Nelson & Zimmerman, 1996). Children in Cambodia are also likely to encounter community violence. In the late 1990s, violent crime reached its peak in Cambodia, with a homicide rate of 11.6 in every 100,000 persons, the highest rate in the region, and second worldwide only to the Philippines (Broadhurst, 2002).

Trauma experiences predict later detrimental psychological, behavioral, academic, social, and health outcomes among Cambodian youth (Kinseth, 2009; Schunert et al., 2012), with significant economic burden: the health consequences of childhood abuse totalled \$186 million for Cambodia in 2013 (UNICEF Cambodia, 2015). Very high rates of trauma exposure among Cambodian children are likely a result of multiple interactive processes, including family and social problems stemming from the “lost generation” of individuals in key positions to restore and reconstruct Cambodia's spiritual, educational, and economic losses following the Khmer

Rouge regime (e.g., doctors, teachers, spiritual leaders), transmission of acceptability of violence perpetration, and eroded social, health, and education systems. However, key posttraumatic stress symptoms of Cambodian youth are still relatively unknown. Currently, international and domestic service providers rely on posttraumatic stress symptoms derived from research with Western samples, which may not be representative of local experiences of distress following traumatic experiences.

Despite its common use across various geographical regions, including Cambodia (Cardozo et al., 2000, 2003, 2004; Thienkrua et al., 2006), trauma and posttraumatic distress criteria shaped by political, legal, economic, social, and medical influences specific to Western contexts may not be ideal for measuring and targeting symptoms in efforts to alleviate distress (for a more in-depth history of the evolution of PTSD in Western culture, see Hinton & Good, 2015; Roger, 2013). The intersection of direct trauma exposure, secondary exposure due to parental traumatization, widespread societal violence, poverty, and erosion of health and education systems that are sequelae of the Khmer Rouge regime, all shape the experiences of Cambodian youth and pose a particular difficulty for international trauma and posttraumatic stress researchers, as these youth's posttraumatic reactions may not conform to conventional conceptualizations of trauma-related disorders (Kinseth, 2009).

Accordingly, Kleinman used the (1998) notion of a "categorical fallacy," in which because a phenomenon can be identified across multiple cultural settings, it is assumed that it means the same thing in both contexts. Hinton and Good (2016) refer to not assessing all the symptoms related to domain of disorder, neglecting other locally salient complaints, like somatic symptoms, as "category truncation." Of significant concern in cross-cultural assessments of distress and psychological treatments is the lack of universal, synonymous terms across contexts

(Keys et al., 2012). These culturally meaningful, shared experiences rooted in local concepts of health and illness, or “idioms of distress,” provide linguistically marked, culturally-salient symptomatology that expresses distress in locally intelligible terms (Kirmayer & Young, 1998). The Diagnostic and Statistical Manual - 5<sup>th</sup> Edition defines cultural idioms of distress as “ways of expressing distress that may not involve specific symptoms or syndromes, but that provide collective, shared ways of experiencing and talking about personal or social concerns.”

Assessing key local idiom of distress provides many types of clinical utility (for a review, see Hinton & Good, 2016). Cultural expressions of distress also may indicate risk for destructive behavior (e.g., physical aggression and suicidality; Lopez & Guarnaccia, 2000), health-related concerns (Lewis-Fernández, Guarnaccia, Patel, Lizardi, & Diaz, 2005), poor psychosocial functioning (Lewis-Fernández, Guarnaccia, & Ruiz, 2009), past exposure to trauma (Hinton & Lewis-Fernández, 2010), and may themselves be a source of distress (Hinton, Hofmann, Pitman, Pollack, & Barlow, 2008; Hinton & Good 2009). Further, the examination of expressions of distress helps illuminate barriers to accurate prevalence assessments and effective client-provider communication (Keys et al., 2012), and thus hold significant clinical relevance. Identifying local constructs of trauma and posttraumatic stress allows healing professionals to identify those recognized as needing support and appropriately employ existing local healing practices and other culturally-appropriate therapeutic interventions (Kohrt & Hruschka, 2010; Hinton & Lewis-Fernández, 2010).

In Cambodia, health and behavior are nested within a worldview of natural and ancestral spiritual forces that stress the importance of continuous life cycles and the role of karma in reincarnation (Van de Put & Eisenbruch, 2004). Thus, Cambodians often rely on spiritual and religious leaders for physical and psychological ailments, including managing distress.

Traditional healers, or “*Kruu Khmer*,” and Buddhist monks were the primary sources of treatment and healing for Cambodians with a wide range of ailments (Van de Put & Eisenbruch, 2004). These ideals are further embedded in Ayurvedic conceptualizations of illness that strive to avoid mind-body dichotomization (Chung and Singer, 1995). Accordingly, as with other Asian and Southeast Asian contexts, prior studies suggest somatic expressions of distress play a particularly important role in Cambodian distress expression. For example, Cambodians often attribute the experiences of arousal-reactive symptoms in anxiety-related psychological distress (e.g., heart palpitations, sweating, dizziness) to a “weak heart” (*khsaoy beh doung*; Hinton, Hinton, Um, Chea, & Sak, 2002). A fear of weakness in blood flow leads to catastrophic cognitions and somatization when experiencing anxiety-related sensations akin to panic-attack symptomatology (or wind attack; *gaeut khyâl*), and often leads to engagement in safety behaviors to improve blood flow throughout the body. Other idioms of distress identified in Cambodian culture include “thinking too much” (*kit chraern*; i.e., a rumination syndrome) and “broken courage” (*Baksbat*: i.e., fearfulness, submissiveness, and the feeling of being mute or deaf) Chhim, 2012; 2013; Hinton et al., 2015, 2016).

Measures have been developed to assess idioms of distress among Cambodian populations. Hinton and colleagues (2012) developed the Cambodian Symptom and Syndrome Inventory (C-SSI). The measure includes Cambodia-specific expressions of distress, including “*gaeut khyâl*” (*wind attack*), “*kit chraern*” (*thinking too much*), and sleep paralysis (or in Cambodia, “*khmaoch sangot*” (*a ghost pushing you down*)). Hinton and colleagues (2012) found culture-bound symptom scores on the Cambodian C-SSI increased significantly across levels of PTSD severity, illustrating that a Cambodian who meets criteria for PTSD also has several other culturally salient somatic symptoms, namely, expressions of *khyâl*, dizziness, and bodily

weakness. This measure highlights the integration of DSM criteria found across cultural contexts with Cambodia-specific distress expressions to provide a more comprehensive and accurate representation of distress in this population. However, the C-SSI was designed specifically for Cambodian refugee, adult populations. Thus, these measures, among others used in Cambodian populations, may not represent the experience of posttraumatic stress for youth living in Cambodia.

A majority of youth in Cambodia experience violence and trauma, and the sequelae of these experiences constitute a potent risk factor for later maladaptation. The current state of trauma assessment with Cambodian children relies on Western-based nosology that does not take into account culturally-specific symptoms, which leads to misidentification and underestimation of posttraumatic stress prevalence in Cambodian children (Chhim, 2012), and may hinder intervention acceptability and effectiveness. It is also vitally important to determine what are the most salient trauma-related symptoms, which may include typical PTSD symptoms as well as locally specific complaints (Hinton & Good, 2016). Culturally-salient symptoms identified in prior studies with Cambodian adult populations reviewed above provide guidance for expected variations in symptoms in a Cambodian child sample (e.g., a particular emphasis on somatic symptoms). However, notable differences are anticipated, including developmental variations and the impact of posttraumatic problems on areas of daily functioning. Further, we expect somewhat discrepant caregiver- and child-reported problem frequency and severity. Accordingly, in a study of Cambodian adolescent refugees reported more distress with school, with their peers, and themselves than was reported by their caregivers (Sack, Angell, Kinzie, & Rath, 1986).

Accurate prevalence estimates of trauma are key as they inform the amount and type of foreign and domestic aid services directed toward child mental health (Summerfield, 2004), and treatments targeting PTSD-based symptoms may neglect salient experiences of distress in Cambodian children, which may lead to suboptimal treatment efficacy (Hinton & Otto, 2006) and low treatment adherence (Hinton & Lewis-Fernández, 2010). Interventions that target culturally-salient symptomatology show better effectiveness, patient adherence, and acceptability (Hinton & Lewis-Fernandez, 2010).

Thus, the present study used qualitative interviews to evaluate child-level expressions of posttraumatic distress from the perspective of the youth affected and their caregivers. Data was obtained using the qualitative methods outlined in the Design, Implementation, Monitoring, and Evaluation of mental health and psychosocial assistance programs for trauma survivors in low resource countries – Module 1 (DIME; Applied Mental Health Research (AMHR) Group, 2013). The DIME procedure is an increasingly utilized method for assessing cultural expressions of distress for trauma survivors in low resource countries, and is designed to elicit linguistically-marked, ethnoculturally meaningful expressions of distress following trauma exposure. The procedure was appropriate for the scope of the current research project and the context of Cambodia, as it was designed specifically for trauma assessment in low-resource countries, and has demonstrated effectiveness across contexts comparable to Cambodia, including Uganda (Betancourt, Speelman, Onyango, & Bolton, 2009), Haiti (Bolton, Surkan, Gray, & Desmousseaux, 2012), Aceh (Poudyal et al., 2009), and in other post-genocidal contexts (e.g., Rwanda; Bolton, 2001).

The DIME procedure is rooted in a grounded theory approach to qualitative data collection. Grounded theory approaches aim to develop response-driven concepts that both

explain and describe a social phenomenon (Morse et al., 2016). This is accomplished through the following tenants of the DIME process: (1) data collection and analyses functioning as concomitant and interrelated processes, (2) concepts reported across participants are the basic unit of analysis, (3) responses are constantly compared to each other to formulate categories, and (4) broader conditions that impact the phenomenon are integrated into the explanations of the study's microscopic aims (Corbin, Strauss, & Strauss, 2014).

This study was conducted in collaboration with The Transcultural Psychosocial Organization Cambodia (TPO). TPO Cambodia is a not-for-profit non-governmental organization (NGO) run and staffed by Cambodians. TPO operates across seven sites throughout Cambodia, and aims to improve the mental health of Cambodians with traumatic experiences and promote positive health policy change. Our research aims were to:

1. Identify expressions of distress in Cambodian children exposed to traumatic events, namely, domestic violence.
2. Identify the perceived severity of reported expressions of distress.
3. Identify areas of functioning (e.g., school, family relationships, etc.) impacted by reported expressions of distress.

A key step towards culturally sensitive trauma assessment and intervention design for Cambodian children is identifying local trauma-related problems, the perceived severity of these problems, and the areas of the child's life impacted.

### **Methods**

Participants were recruited in-person via TPO support staff from TPO Cambodia's "Improving Mental Health for Survivors of Gender-Based Violence & Sexual Assault" community program in the Banan District of the Battambang province in northwest Cambodia.

This five-year project (2013 – 2017) aims to promote gender equality and to improve access to psychosocial services for survivors of gender-based violence and their families.

In-person interviews were conducted with 30 children with trauma experiences and their 30 caregivers. Participants were caregivers of children and children (age 10-13 years) who were receiving mental health services at TPO at the time of the interview to address exposure to domestic violence and other traumatic events. All caregivers with children who met this criteria were invited to participate by support staff at TPO. Following completion of the caregiver interview, the interviewers obtained consent to request assent from child participants. Interviews were conducted by two full-time mental health professionals employed by TPO proficient in both the local language (Khmer) and English. The mental health professionals have extensive clinical experience (20+ years) in the community. Interviewers underwent interview administration training according to DIME procedures and Human Subjects Training, both led by the principal investigator (PI). The PI attended the initial 5 interviews with both interviewers to guide and answer questions, and remained in close proximity for the remaining interviews. Further, the PI lived in the region of Cambodia for approximately 10 months, and engaged TPO as a consultant and a direct service provider. As compensation for participation, caregivers received \$5 USD and children received school supplies and soap; compensation type and amount was decided upon in collaboration with TPO in efforts to ensure appropriateness and reduce coercion. Interviews were conducted in Khmer in private rooms of homes in the community used for TPO programming, and were audio-recorded. Both caregivers and children were asked the following questions; all responses are regarding child experiences and expressions:

1. *“What are all the problems that affect children after seeing or experiencing things that are scary, dangerous or violent?”*
2. *“How would you rate the severity of this problem in children’s daily lives?”*
3. *“What areas of childrens’ lives are affected by this problem?”*

The interviewer repeatedly prompted the interviewee for additional problems until s/he indicated they have no further responses, up to 10 problems. Severity rankings were elicited on a 1 – 10 likert scale (*1 = Not at all a problem in the child's daily life to 10 = Very much a problem in the child's daily life*). Responses were analyzed according to the DIME procedure.

## **Results**

### **Demographics**

Interviews were conducted with 30 youth with trauma experiences and 30 caregivers of children with trauma experiences. Of 30 caregiver participants, 24 were female and 6 were male. Caregiver ages ranged from 30 – 62 years ( $M = 44.03$  years,  $SD = 10.60$ ); 28 were married and 2 widowed; and cared for between 1 – 11 children ( $M = 4.27$ ,  $SD = 2.2$ ). Of the 25 caregivers who had attended school, 22 completed primary school, 2 completed secondary school, and 1 attended college. Caregivers also reported on their abilities in reading ( $n = 15$  “Can read”;  $n = 10$  “Cannot read”; and  $n = 5$  “Can read somewhat”) and writing ( $n = 14$  “Can write”;  $n = 12$  “Cannot write”; and  $n = 4$  “Can write somewhat”). Among adult participants, 12 were farmers, 9 were skilled laborers, 4 vendors, 3 housewives, and 2 unskilled laborers.

Child participants included 14 males and 16 females. Child ages ranged from 10 years to 13 years, 5 months ( $M = 11.7$  years,  $SD = 1.12$ ). A range of 4 to 13 people were reported to live with the child ( $M = 6.23$ ,  $SD = 2.18$ ). Children also reported on who were they perceived as their primary caregivers: 14 reported their biological parent(s), 6 their grandparent(s), 2 their aunt and/or uncle, and 8 reported all family members, including a combination of parents, grandparents, aunts/uncles, and siblings. All children attended school.

### **Problem Frequency, Severity, and Impact on Functioning**

Analyses were conducted according to DIME procedures (AMHR Group, 2013), which aim to extract identifiable, singular problems from interviewee responses, and aggregate summary sheets completed during the interviews into a final summary sheet with a frequency count of all problems listed across participants. This provides a final summary aggregate of problems, ranked by frequency and severity, to identify the most common and most severe posttraumatic problems listed by participants.

Responses are presented here split by caregiver- and youth-report to highlight problems salient to each group respectively. Tables 1 and 2 are ranked by frequency of report, and also include severity ratings and the three most frequently reported areas of functioning impacted.

Table 3 displays problems ranked by frequency using the full sample (caregivers and youth), and also includes areas of functioning impacted. Table 4 displays caregiver- and youth-reported problems, ranked by severity. Table 5 displays examples of commonly reported areas of functioning for each domain (i.e., school, physical, affective, etc.), and the percentage of participants who reported the area of functioning was impacted by posttraumatic stress symptoms.

{{{ Insert Tables 1, 2, 3, 4, and 5 here }}}}

## **Discussion**

Findings of the current study highlight frequent and salient symptoms experienced by this sample of Cambodian youth with trauma experiences. Overall, the problems reported across caregivers and children identify symptoms across a range of domains of functioning, including physical, cognitive, affective, social, and occupational. This aligns with prior findings of Cambodian adolescent refugees (e.g., Kinzie et al., 1986), which found posttraumatic stress experienced in Cambodia to impact multiple domains of functioning.

Both children and caregivers noted an emotion term, easily angered or *mour mao*, as the most frequent posttraumatic problem for youth (67% of caregivers and children), which is also a symptom outlined in the DSM-5 criteria for PTSD. This symptom is also notable in its predictive power of later violent and aggressive behavior among adolescents and Cambodian adults in the US. One prior study of African-American, white, and Hispanic students aged 14-19 in the United States found anger predicted violent behavior better than any other PTSD symptom (Song Singer, & Anglin, 1998), which is in keeping with other studies that show emotional regulation capacities are a robust predictor of later violence (Caiozzo, Houston, & Grych, 2016). In a study of adult Cambodian refugees in the United States (Hinton et al., 2009) anger expression was both a strong indicator of PTSD (i.e., 66% of participants with an anger episode in the last month met PTSD criteria, where only 33% of those without PTSD had an anger episode in the last month) and often activated physiological arousal akin to panic-attack symptomatology. Hinton and colleagues (2009) call for further examination of intergenerational transmission of anger as an important aspect of trauma and PTSD in Cambodian populations. The current study, while not directly examining intergenerational transmission of anger, suggests anger is an important expression of distress in Cambodian family systems affected by trauma.

Other prominent emotion terms included sad face or *moak kriem* (40% of caregivers, 17% of children) and fearfulness or *phay klach* (57% of children, 40% of caregivers). Fearfulness was rated as the second most severe problem according to caregivers and reported to most frequently impact physical health and school success, indicating an emotion symptom that is salient to caregivers and may particularly interfere with daily functioning for trauma-affected Cambodian children.

Many symptoms noted, however, are not in the DSM-5 criteria. For example, physical symptoms, which Hinton and Lewis Fernandez (2010, 2011) suggest may be prominent in many cultural groups as a result of trauma. Palpitations or *beh-dong doeu nyaob* was a frequent complaint, particularly for children (50% of children), and was rated as the most severe child problem by caregivers (8.00). For Cambodians, physical symptoms are considered increasingly concerning the closer they occur to the chest, often leading to catastrophic cognitions (e.g., heart attack, cardiac arrest, or a *weak heart*; e.g., Hinton et al., 2002). Hence, certain culturally-salient healing practices, such as coining, are intended to direct blood flow away from the torso. Other somatic symptoms endorsed by both caregivers and children, included headaches or *chheur (kbal) kobal* (40% of caregivers, 57% of children), and other physical ailments or *chum-gneu reang kai phseng teat* (43% of caregivers, 47% of children), a category created to capture physical symptoms with <3 endorsements. This category includes, but is not limited to: poor appetite, nausea, difficulty breathing, dizziness, “severe illness,” coughing, “weak health,” hot face, eyes, and body, convulsions, “pale face,” stunted growth, and fever. The high rate and severity of somatic symptom reporting is notable in its contrast to DSM and ICD-based PTSD nosology, which tend to primarily capture cognitive and affective symptom presentations.

A range of cognitive focused symptoms were reported by children and caregivers, including shame or *kour ouy amas nash* (33% of caregivers, 47% of children), worry or *prouy chroeun* (33% of caregivers, 43% of children), forgetfulness or *phlech phlaing* (20% of caregivers), and school difficulties in learning and comprehension (e.g., *rien men ches*; 40% of caregivers, 23% of children). It has been noted among adult traumatized Cambodians that forgetfulness is a prominent trauma symptom, and that it is often attributed to excessive worry

and rumination, which are often part of the “thinking too much” syndrome (Hinton et al., 2015, 2016)

Thinking too much (TTM), or thinking a lot, has been identified as a key idiom of distress in many cultural contexts (for a review, see Kaiser et al., 2015) insofar as to be included as an entry in the glossary of cultural concepts of distress in the DSM-5 (American Psychiatric Association, 2013). In the current sample, 40% of caregivers and 30% of children reported TTM as a posttraumatic problem, respectively. TTM is considered to be akin to rumination in a broad sense; an inability to shift attentional focus and distance oneself from past hardship (Hinton et al., 2015). This rumination both causes and perpetuates multiple forms of distress (e.g., insomnia, somatic distress, irritability, among others) that lead to exacerbated PTSD symptoms (Kaiser et al., 2014; Pedersen et al., 2010). The presence of TTM has been found to be one of the best indicators of PTSD in adult Cambodian refugee populations, with high correlations to reductions in posttraumatic stress during and following treatment (Hinton et al., 2012). In the current study, 12 caregivers and 9 youth reported TTM as a posttraumatic problem (40% and 30%, respectively), which aligns with and extends prior findings of TTM in adult Cambodian refugee samples to children still residing in Cambodia.

Furthermore, TTM was not only reported as a posttraumatic problem, but also an area of functioning impacted by posttraumatic symptoms and a cause of other symptoms, suggesting bidirectional influences between TTM and symptoms associated with traumatic experiences. A recent meta-analytic review of the TTM idiom across cultural contexts revealed TTM has been reported as a symptom, a syndrome, and a cause (Kaiser et al., 2015). This aligns with a recent model proposed by Hinton and colleagues (2015, 2016) of the interrelationships of TTM, associated distress (specifically, insomnia, catastrophic cognitions, somatic distress, negative

memory, and irritability), and PTSD symptoms. Accordingly, in the current study, TTM was mentioned as an area of impairment associated with poor sleep, headaches/trembling/chest pain/fatigue, forgetfulness, worry/fearfulness, and “*mour mao*,” among others. Together, our findings support the notion that for Cambodians, TTM is central to the trauma ontology and the construct validity of instruments that assess posttraumatic stress (Hinton et al., 2015, 2016; on content validity, see Hinton and Lewis-Fernandez, 2011). “Thinking a lot” would seem to be at the center of causal networks, triggering multiple symptoms, and hence a key treatment target.

Behavioral complaints were also reported, including crying or *yom* (50% of caregivers and children), isolation/withdrawal or *ek ka / dork khloun pi ke eng* (23% of caregivers, 27% of children), school attendance difficulties or *banha-ha ah wata mean* (23% of caregivers and children), restlessness/hyperactivity or *ro-sab ro-sorl/nov min sgniem* (20% of caregivers) and verbal aggression or *sam dey kach/sam dey bampean* (13% of caregivers). Of the reported behavioral problems, restlessness/hyperactivity was rated one of the most severe problems by caregivers (6.83) and difficulties with school attendance was rated one of the most severe problems by children (7.14), indicating these problems as particularly troublesome for caregivers and children, respectively. Behavioral problems were reported to interfere with the children’s physical health, cognitive functioning, and peer relationships.

For children, poor sleep, fatigue/exhaustion, and difficulties with school were rated as the most severe problems. While other problems were reported as occurring more frequently, these severity ratings provide insight into a youth’s experience of posttraumatic stress and the domains of functioning considered most salient. Prior studies have demonstrated that depletion of bodily energy is of particular concern to Cambodian populations, as bodily weakness may predispose youth to more severe symptomatology (Hinton, Hinton, Eng, & Choung, 2012).

Further, poor sleep may perpetuate fatigue and difficulties with school comprehension/attendance, reflecting a cluster of symptoms and functional impairment highly salient to Cambodian youth in this sample.

Areas of functioning impacted provide insight into the effects of posttraumatic symptomatology on domains pertinent to a child's daily life. These findings suggest posttraumatic problems in Cambodian youth in this sample are perceived to interfere with a child's school functioning (including comprehension, attendance, motivation to study, and concentration) and a variety of physical ailments (including headache, trembling, weak health, pale face, dizziness, and stunted growth, among others), as well as cognitive and affective domains, interference with peer and family relationships, ability to complete daily work tasks, and "thinking too much." The onset of marked problems in these domains may warrant further exploration of traumatic experience and posttraumatic stress in Cambodian children.

The area of functioning most frequently reported as impacted by posttraumatic distress in the current sample was physical functioning, which indicates physical functioning is both frequently impacted by posttraumatic stress and a domain in which Cambodian families are particularly sensitive to perceived impairment. Examples of physical health consequences of distress reported in the current study highlight a wide range of ailments caregivers and children attribute to posttraumatic distress, including common ailments such as headache, stomach ache, and difficulty sleeping to less common ailments, such as "*kren*" (or stunted growth), nose bleeds, convulsions, and pale face, to those akin to panic attack, or "*gaeut khyâl*" (*wind attack*) symptomatology, such as rapid heart rate, difficulty breathing, and dizziness. Particularly in samples with typically high rates of malnourishment and illness, the psychological vs. physical root of somatic ailments may be difficult to disentangle, if even possible, as they often perpetuate

each other (Van Schaack, Reicherter, & Chhang, 2011), particularly in health belief systems that do not dichotomize mind and body, such as Cambodia (Chung & Singer, 1995). More importantly, however, the current findings identify physical ailment attributions caregivers and children tie to their traumatic experiences, which is applicable to clinical assessment, targets for treatment, reasons for service-seeking, and subsequent perceptions of treatment appropriateness and effectiveness. Further, the consistency in which all problem types (emotion, somatic, cognitive, and behavioral) were reported to impact physical health outcomes may also suggest that often only symptoms perceived to impact physical domains were considered sufficiently worrisome to report as posttraumatic problems in children.

School attendance and academic success was also frequently reported as an area of functioning impacted by posttraumatic problems. Studies of education systems in Cambodia show consistent and substantial community participation in school system modernization efforts following the Khmer Rouge regime (e.g., Bredenberg & Dahal, 2000). However, access to formal education is still limited, and is often exclusively available for those with the financial means to pay for school on a daily basis (Filmer & Schady, 2008), adding considerable barriers to education access and success. The current findings suggest posttraumatic psychological distress may pose an additional barrier to school access and success. Addressing Cambodian children's expressions of distress may contribute to their capability to attend school and better comprehend the material. Further, considering school access and success a pertinent target for intervention in trauma-affected Cambodian children will promote a domain of functioning salient to Cambodian families, and likely increase the acceptability and perceived effectiveness of the intervention efforts.

Cognitive and affective domains, friend and family relationships, and daily work were also reported to be impacted by posttraumatic stress in the current sample. Impairment across a child's areas of functioning suggests both the assessment and treatment of child trauma in Cambodia should target domains across the child's social ecology. Outcome studies of psychotherapy interventions in Western samples that target domains across the social ecology demonstrate substantial effectiveness (for a meta-analysis, see Curtis, Ronan, & Borduin, 2004), and tailoring wraparound treatments to the ecological context of Cambodian children may show similar effectiveness. Further, although numerous areas of functioning were reported as impaired by posttraumatic stress, it is important to consider areas of resilience and growth following adverse life experiences. Previous studies of resilience demonstrate most children with trauma experiences do not exhibit global impairment across domains, but instead exhibit resilience in some areas and impairment in others (e.g., Martinez-Torteya, Miller-Graff, Howell, & Figge, 2015). Recognizing areas of resilience in Cambodian children will allow clinicians to mobilize strengths and foster adaptive functioning (see strengths-based approaches to intervention, such as Padesky & Mooney, 2012).

Several limitations should be acknowledged. Firstly, although the current sample of children have all experienced a potentially traumatic event(s), there was no assessment, thus no minimum required presentation of posttraumatic stress symptoms to participate in the study. Consequently, results of the study should be considered in the context of a sample with a range of posttraumatic stress symptomatology, likely ranging from subthreshold to meeting criteria for DSM-5 PTSD. Further, children in this sample shared a common potentially traumatic event type, domestic violence. Thus, posttraumatic problem responses may be somewhat limited to this trauma type; however, many of the children in this sample have also experienced a range of

potentially traumatic experiences above and beyond domestic violence. Second, the current sample was drawn from children receiving psychotherapeutic services via the collaborative organization. Thus, the current sample may be particularly familiar with psychological vernacular and have likely already been provided coping skills and resources. Third, all caregivers in the current sample were victims of intimate partner violence and had thus experienced trauma themselves, which may impact both the types of problem their children experienced and caregiver reporting of child-level symptoms. Generalization to full community samples should be done with caution. Fourth, although a strength of this study is all procedures and aggregate analyses were conducted in the local language, any data and interpretation requiring translation may forego meaningful language- and culture-specific intricacies. To combat this, every step of study design, data collection, coding, analysis, and manuscript preparation was implemented with a continually reflexive process with native Cambodian research and clinical personnel employed at TPO Cambodia.

To conclude, Cambodian children and their caregivers are likely the most accurate and informative reporters of posttraumatic stress problems in Cambodian children. Symptoms and problems reported encompass multiple domains of child functioning, identify frequent and severe problems, and highlight unique and theoretically overlapping symptoms compared to western-based PTSD criteria often used in contexts such as Cambodia. Designing assessments and interventions for posttraumatic stress in Cambodian children that are feasible, acceptable, and effective can be optimized from the incorporation and targeting of symptoms and problems identified in the current study. Findings suggest key expressions in this population align with prior findings in Cambodian refugee populations, including anger, somatic symptoms such as headache and palpitations, and cognitive problems, particularly “thinking too much.” Other

symptoms identified are developmentally and contextually unique, such as difficulties with school attendance and learning and a range of physical ailments attributed to traumatic experiences. Accordingly, across all domains and almost 100% of participants, physical health functioning was reported as impacted by posttraumatic problems. Areas of functioning reported in the current study also highlight a unique contribution to the existing body of literature on posttraumatic problems in Cambodian populations, as they provide contextually-specific effects on functioning for children still residing in Cambodia. Considering these key expressions and physical health as critical domains for assessment and intervention is important to capture those affected by trauma and target salient symptomatology. To ignore these problems as possible sequela of trauma may be to ignore the problems most worrisome and prevalent to this population. The voices of Cambodian children and their families provide insight and direction to the international trauma-focused community invested in improving the wellbeing of Cambodian children.

## References

- Applied Mental Health Research (AMHR) Group: DIME Modules. [http://www.jhsph.edu/research/centers-and-institutes/center-for-refugee-and-disaster-response/response\\_service/AMHR/](http://www.jhsph.edu/research/centers-and-institutes/center-for-refugee-and-disaster-response/response_service/AMHR/).
- Bernsen, M. (2005). Mental health workers preparing for Khmer Rouge trial fallout. *Phnom Penh Post, Cambodia*.
- Betancourt, T. S., Speelman, L., Onyango, G., & Bolton, P. (2009). A qualitative study of mental health problems among children displaced by war in northern Uganda. *Transcultural Psychiatry, 46*(2), 238-256.
- Bolton, P. (2001). Local perceptions of the mental health effects of the Rwandan genocide. *The Journal of nervous and mental disease, 189*(4), 243-248.
- Bolton, P., Surkan, P. J., Gray, A. E., & Desmousseaux, M. (2012). The mental health and psychosocial effects of organized violence: A qualitative study in northern Haiti. *Transcultural psychiatry, 1363461511433945*.
- Broadhurst, R. G. (2002) "Lethal Violence, Crime and State Formation in Cambodia," *Australian and New Zealand Journal of Criminology, 35*.1: 2.
- Caiozzo, C. N., Houston, J., & Grych, J. (2016). Predicting aggression in late adolescent romantic relationships: a short-term longitudinal study. *Journal of adolescence, 53*, 237-248.
- Cardozo, B. L., Kaiser, R., Gotway, C. A., & Agani, F. (2003). Mental health, social functioning, and feelings of hatred and revenge of Kosovar Albanians one year after the war in Kosovo. *Journal of Traumatic Stress, 16*(4), 351-360.

- Cardozo, B. L., Talley, L., Burton, A., & Crawford, C. (2004). Karenni refugees living in Thai–Burmese border camps: traumatic experiences, mental health outcomes, and social functioning. *Social science & medicine*, 58(12), 2637-2644.
- Cardozo, B. L., Vergara, A., Agani, F., & Gotway, C. A. (2000). Mental health, social functioning, and attitudes of Kosovar Albanians following the war in Kosovo. *Jama*, 284(5), 569-577.
- Chhim, S. (2012). Baksbat (broken courage): The development and validation of the inventory to measure baksbat, a Cambodian trauma-based cultural syndrome of distress. *Culture, Medicine and Psychiatry*, 36(4), 640-659. doi:10.1007/s11013-012-9279-6.
- Chhim, S. (2013). Baksbat (broken courage): a trauma-based cultural syndrome in Cambodia. *Medical anthropology*, 32(2), 160-173.
- Choi, Y., Mericle, A., & Harachi, T. W. (2006). Using Rasch analysis to test the cross-cultural item equivalence of the Harvard Trauma Questionnaire and the Hopkins Symptom Checklist across Vietnamese and Cambodian immigrant mothers. *Journal of applied measurement*, 7(1), 16.
- Corbin, J., Strauss, A., & Strauss, A. L. (2014). *Basics of qualitative research*. Sage.
- Curtis, N. M., Ronan, K. R., & Borduin, C. M. (2004). Multisystemic treatment: A meta-analysis of outcome studies. *Journal of family psychology*, 18(3), 411-419.
- de Jong, J.T., Komproe I.H., Van Ommeren M. (2001) Lifetime events and posttraumatic stress disorder in 4 postconflict settings. *Journal of the American Medical Association*, 2001;286:555–562.
- Filmer, D., & Schady, N. (2008). Getting girls into school: Evidence from a scholarship program in Cambodia. *Economic development and cultural change*, 56(3), 581-617.

- Guarnaccia, P. J., Canino, G., Rubio-Stipec, M., & Bravo, M. (1993). The prevalence of ataques de nervios in the Puerto Rico Disaster Study: The role of culture in psychiatric epidemiology. *The Journal of nervous and mental disease*, 181(3), 157-165.
- Hinton, D. E., & Good, B. (Eds.)(2009). *Culture and panic disorder*. Stanford University Press.
- Hinton, D. E., & Good, B. J. (Eds.). (2016). *Culture and PTSD: Trauma in historical and global perspective*. Pennsylvania: University of Pennsylvania Press.
- Hinton, D., Hinton, S., Um, K., Chea, A., & Sak, S. (2002). The Khmer 'weak heart' syndrome: Fear of death from palpitations. *Transcultural Psychiatry*, 39(3), 323-344.
- Hinton, D. E., Hinton, A. L., Eng, K. T., & Choung, S. (2012). PTSD and key somatic complaints and cultural syndromes among rural Cambodians: The results of a needs assessment survey. *Medical anthropology quarterly*, 26(3), 383-407.
- Hinton, D. E., Hofmann, S. G., Pitman, R. K., Pollack, M. H., & Barlow, D. H. (2008). The panic attack–posttraumatic stress disorder model: Applicability to orthostatic panic among Cambodian refugees. *Cognitive behaviour therapy*, 37(2), 101-116.
- Hinton, D.E. & Lewis-Fernández, R. (2010). "Idioms of distress among trauma survivors: Subtypes and clinical utility." *Culture, Medicine, and Psychiatry* 34, no. 2 209-218.
- Hinton, D. E., & Lewis-Fernández, R. (2011). The cross-cultural validity of posttraumatic stress disorder: implications for DSM-5. *Depression and anxiety*, 28(9), 783-801.
- Hinton, D. E., Rasmussen, A., Nou, L., Pollack, M. H., & Good, M. J. (2009). Anger, PTSD, and the nuclear family: A study of Cambodian refugees. *Social science & medicine*, 69(9), 1387-1394.

- Hinton, D. E., Reis, R., & Jong, J. (2015). The “thinking a lot” idiom of distress and PTSD: An examination of their relationship among traumatized Cambodian refugees using the “Thinking a Lot” Questionnaire. *Medical anthropology quarterly*, 29(3), 357-380.
- Hinton, D. E., Reis, R., & de Jong, J. T. (2016). A transcultural model of the centrality of "thinking a lot" in psychopathologies across the globe and the process of localization: A Cambodian refugee example. *Culture, Medicine, and Psychiatry*, 40, 570-619.
- Keys, H. M., Kaiser, B. N., Kohrt, B. A., Khoury, N. M., & Brewster, A. R. T. (2012). Idioms of distress, ethnopsychology, and the clinical encounter in Haiti's Central Plateau. *Social Science & Medicine*, 75(3), 555-564.
- Kirmayer, L. J., & Young, A. (1998). Culture and somatization: clinical, epidemiological, and ethnographic perspectives. *Psychosomatic medicine*, 60(4), 420-430.
- Kleinman, A. (1988). *The illness narratives: Suffering, healing, and the human condition*. Basic books.
- Kohrt, B. A., & Hruschka, D. J. (2010). Nepali concepts of psychological trauma: the role of idioms of distress, ethnopsychology and ethnophysiology in alleviating suffering and preventing stigma. *Culture, Medicine, and Psychiatry*, 34(2), 322-352.
- Lewis-Fernández, R., Guarnaccia, P. J., Patel, S., Lizardi, D., & Diaz, N. (2005). Ataque de nervios: anthropological, epidemiological, and clinical dimensions of a cultural syndrome. *Perspectives in cross-cultural psychiatry*, 63-85.
- Lewis-Fernández, R., Guarnaccia, P.J., & Ruiz, P. (2009). Culture Bound-Syndromes. In *Kaplan and Sadock's Comprehensive Textbook of Psychiatry*. B.J. Sadock, V.A. Sadock, and P. Ruiz, eds. Philadelphia: Lippincott, Williams, and Wilkins.

- Lopez, S. R., & Guarnaccia, P. J. (2000). Cultural psychopathology: Uncovering the social world of mental illness. *Annual review of psychology*, 51(1), 571-598.
- Martinez-Torteya, C., Miller-Graff, L. E., Howell, K. H., & Figge, C. (2015). Profiles of adaptation among child victims of suspected maltreatment. *Journal of Clinical Child & Adolescent Psychology*, 1-8.
- McCue, M. L. (2008). *Domestic violence: A reference handbook*. ABC-CLIO.
- Ministry of Women's Affairs. (2013). UNICEF Cambodia, US Centers for Disease Control and Prevention. *Findings from Cambodia's Violence Against Children Survey: Summary*. Cambodia: Ministry of Women's Affairs, 2014.
- Mollica, R. F., Caspi-Yavin, Y., Bollini, P., Truong, T., Tor, S., & Lavelle, J. (1992). The Harvard trauma questionnaire. *Journal of Nervous and Mental Disease*, 180(2), 111-116.
- Mollica, R. F., McInnes, K., Pham, T., Fawzi, M. C. S., Murphy, E., & Lin, L. (1998). The dose-effect relationships between torture and psychiatric symptoms in Vietnamese ex-political detainees and a comparison group. *The Journal of nervous and mental disease*, 186(9), 543-553.
- Morse, J. M., Stern, P. N., Corbin, J., Bowers, B., Charmaz, K., & Clarke, A. E. (2016). *Developing grounded theory: The second generation*. Routledge.
- Nelson, E. & Zimmerman, C. (1996). *Household Survey on Domestic Violence in Cambodia* (Phnom Penh: Ministry of Women's Affairs, 1996).
- Padesky, C. A., & Mooney, K. A. (2012). Strengths-based cognitive-behavioural therapy: A four-step model to build resilience. *Clinical psychology & psychotherapy*, 19(4), 283-290.

- Poudyal, B., Bass, J., Subyantoro, T., Jonathan, A., Erni, T., & Bolton, P. (2009). Assessment of the psychosocial and mental health needs, dysfunction and coping mechanisms of violence affected populations in Bireuen Aceh. A qualitative study. *Torture, 19*(3), 218-226.
- Robjant, K., & Fazel, M. (2010). The emerging evidence for narrative exposure therapy: A review. *Clinical psychology review, 30*(8), 1030-1039.
- Roger, K. (2013). A Brief Nosological History of PTSD. *Journal of Traumatic Stress Disorders & Treatment.*
- Sack, W. H., Angell, R. H., Kinzie, J. D., & Rath, B. (1986). The psychiatric effects of massive trauma on Cambodian children: II. The family, the home, and the school. *Journal of the American Academy of Child Psychiatry, 25*(3), 377-383.
- Schaal, S., Elbert, T., & Neuner, F. (2009). Narrative exposure therapy versus interpersonal psychotherapy. A pilot randomized controlled trial with Rwandan genocide orphans. *Psychotherapy and Psychosomatics, 78*, 298–306.
- Schunert, T. (2012). *Cambodian mental health survey 2012*. Royal University of Phnom Penh, Department of Psychology.
- Sonis, J., Gibson, J. L., De Jong, J. T., Field, N. P., Hean, S., & Komproe, I. (2009). Probable posttraumatic stress disorder and disability in Cambodia: associations with perceived justice, desire for revenge, and attitudes toward the Khmer Rouge trials. *Jama, 302*(5), 527-536.
- Strasser, J., Chhim, S., & Taing, S. (2012). Narrative Exposure Therapy (NET): Culturally Sensitive Trauma Treatment for Khmer Rouge Survivors. *The International Association of Buddhist Universities (IABU)*, 100.

- Song, L. Y., Singer, M. I., & Anglin, T. M. (1998). Violence exposure and emotional trauma as contributors to adolescents' violent behaviors. *Archives of pediatrics & adolescent medicine*, 152(6), 531-536.
- Summerfield, D. (2001). The invention of post-traumatic stress disorder and the social usefulness of a psychiatric category. *Bmj*, 322(7278), 95-98.
- Thienkrua, W., Cardozo, B. L., Chakkraband, M. S., Guadamuz, T. E., Pengjuntr, W., Tantipiwatanaskul, P., ... & Tappero, J. W. (2006). Symptoms of posttraumatic stress disorder and depression among children in tsunami-affected areas in southern Thailand. *Jama*, 296(5), 549-559.
- Van de Put, W., & Eisenbruch, M. (2004). Healing Trauma in Cambodian Communities. Miller, K. and Rasco, L. *From Clinic to Community: Ecological Approaches to Refugee Mental Health*. New Jersey: Lawrence Erlbaum, 133-159.
- Van Schaack, B., Reicherter, D., & Chhang, Y. (2011). Cambodia's Hidden Scars: Trauma Psychology in the Wake of the Khmer Rouge. *Phnom Penh: Documentation Center of Cambodia*.

**Study 1 Tables**

**Table 1.** Caregiver-Reported Problems, Ranked by Frequency ( $n = 30$ )

Problem ( <i>transliteration</i> )	Frequency %	Severity (1-10)	Areas of Functioning (% reported)
Easily Angered <i>Mour Mao</i>	67%	6.25	School (45%) Cognitive (40%)
Crying <i>Yom</i>	50%	5.87	Physical (60%) School (47%)
Other Physical Ailments <i>Chum-Gneu Reang Kai Phseng Teat</i>	43%	5.85	School (62%) Daily Work (23%)
Sad Face <i>Moak Kriem</i>	40%	4.42	School (58%) Cognitive (42%)
Headache <i>Chheur (Kbal) Kobal</i>	40%	6.08	School (42%) Daily Work (33%)
Fearfulness <i>Phay Klach</i>	40%	7.42	Physical (67%) School (42%)
Thinking Too Much <i>Kit Chraern</i>	40%	5.67	Physical (58%) School (25%)
Difficulties w/ Learning <i>e.g., Rien Men Ches</i>	40%	5.50	School (33%) TTM (25%)
Poor Sleep <i>Dek Men Sov Lok</i>	37%	6.36	Physical (73%) School (36%)
Shame <i>Kour Ouy Amas Nash</i>	33%	6.20	Cognitive (40%) Family (30%)
Worry <i>Prouy Chroeu</i>	33%	6.50	School (60%) Cognitive (50%)
Isolation/Withdrawal <i>Ek Ka / Dork Khoun Pi Ke Eng</i>	23%	5.20	Affective (40%) School (30%)
Difficulties w/ School Attendance <i>Banha-Ha Ah Wata Mean</i>	23%	4.86	Affective (71%) Friends (29%)
Restlessness/Hyperactivity <i>Ro-Sab Ro-sorl/Nov Min Sgniem</i>	20%	6.83	Cognitive (33%) TTM (17%)
Forgetfulness <i>Phlech Phlaing</i>	20%	6.33	School (83%) Family (50%)
Rapid Heart Rate <i>Beh-Dong Doeou Nyaob</i>	13%	8.00	Physical (75%) School (50%)
Verbal Aggression <i>Sam Dey Kach/Sam Dey Bampean</i>	13%	3.50	Physical (75%) Affective (50%)

Note: Only responses reported by >3 interviewees included. TTM= Thinking Too Much

**Table 2.** Youth-Reported Problems, Ranked by Frequency ( $n = 30$ )

Problem ( <i>transliteration</i> )	Frequency %	Severity (1-10)	Areas of Functioning (% reported)
Easily Angered <i>Mour Mao</i>	67%	6.25	School (50%) Physical (50%)
Headache <i>Chheur (Kbal) Kobal</i>	57%	5.94	School (59%) Cognitive (47%)
Fearfulness <i>Phay Klach</i>	57%	6.47	Physical (47%) School (35%)
Rapid heart rate <i>Beh-Dong Doeu Nyaob</i>	50%	6.33	School (53%) Affective (27%)
Crying <i>Yom</i>	50%	6.53	Physical (42%) School (33%)
Shame <i>Kour Ouy Amas Nash</i>	47%	6.64	School (71%) Friends (43%)
Other Physical Ailments <i>Chum-Gneu Reang Kai Phseng Teat</i>	47%	5.21	School (57%) Affective (50%)
Worry <i>Prouy Chroeuon</i>	43%	6.08	School (77%) Friends (46%)
Thinking Too Much <i>Kit Chraern</i>	30%	6.22	Physical (67%) Cognitive (33%)
Poor sleep <i>Dek Men Sov Lok</i>	30%	8.00	Physical (67%) Cognitive (33%)
Isolation/withdrawal <i>Ek Ka</i>	27%	5.13	Cognitive (50%) School (38%)
Difficulty w/ Learning <i>e.g., Rien Men Ches</i>	23%	7.57	Affective (100%) Daily Work (29%)
Difficulties w/ School Attendance <i>Banha-Ha Ah Wata Mean</i>	23%	7.14	Physical (43%) Friends (43%)
Problems w/ Peers <i>Banha-Ha Jea Muy Met Pheak</i>	23%	4.29	School (43%) Affective (29%)
Fatigue/Exhaustion <i>Ors Kam Lang</i>	20%	7.67	Daily Work (50%) School (50%)
Sad face <i>Moak Kriem</i>	17%	6.80	Friends (60%) School (60%)
Poor Appetite <i>Ort Khlean Aha (Ort Khlean Bay)</i>	13%	6.25	Physical (25%) -

Note: Only responses reported by > 3 interviewees included.

**Table 3.** Combined Problems, Ranked by Frequency (*n* = 60)

Problem ( <i>transliteration</i> )	Frequency %	Areas of Functioning (% reported)
Easily Angered <i>Mour Mao</i>	67%	School (48%) Physical (35%)
Crying <i>Yom</i>	50%	Physical (63%) School (43%)
Headache <i>Chheur (Kbal) Kobal</i>	48%	School (52%) Cognitive (34%)
Fearfulness <i>Phay Klach</i>	48%	Physical (55%) School (38%)
Other Physical Ailments <i>Chum-Gneu Reang Kai Phseng Teat</i>	45%	School (59%) Affective (37%)
Shameful <i>Kour Ouy Amas Nash</i>	40%	School (54%) Friends (33%)
Worry <i>Proy Chroeun</i>	38%	School (70%) Physical (39%)
Thinking Too Much <i>Kit Chraern</i>	35%	Physical (62%) School (24%)
Poor Sleep <i>Dek Men Sov Lok</i>	33%	Physical (70%) School (35%)
Rapid Heart Rate <i>Beh-Dong Doeu Nyaob</i>	32%	School (53%) Daily Work (26%)
Difficulty w/ Learning <i>e.g., Rien Men Ches</i>	32%	School (47%) Affective (42%)
Isolation/Withdrawal <i>Ek Ka / Dork Khoun Pi Ke Eng</i>	30%	Affective (39%) School (39%)
Sadness/Sad Face <i>Moak Kriem</i>	23%	School (59%) Friends (35%)
Difficulties w/ School Attendance <i>Banha-Ha Ah Wata Mean</i>	28%	Affective (50%) Friends (36%)
Forgetfulness <i>Phlech Phlaing</i>	13%	School (75%) Family (38%)
Problems with Peers <i>Banha-Ha Jea Muy Met Pheak</i>	13%	School (38%) Affective (25%)
Fatigue/Exhaustion <i>Ors Kam Lang</i>	13%	School (50%) Friends (50%)

Note: Only responses reported by > 6 interviewees included.

**Table 4.** Caregiver- and Child-Reported Problems, Ranked by Severity Rating

Caregiver-Reported Problem ( <i>transliteration</i> )	Severity	Child-Reported Problem ( <i>transliteration</i> )	Severity
Rapid Heart Rate <i>Beh-Dong Doeu Nyaob</i>	8.00	Poor Sleep <i>Dek Men Sov Lok</i>	8.00
Fearfulness <i>Phay Klach</i>	7.42	Fatigue/Exhaustion <i>Ors Kam Lang</i>	7.67
Restlessness/Hyperactivity <i>Ro-Sab Ro-sorl/Nov Min Sgniem</i>	6.83	Difficulties w/ Learning <i>e.g., Rien Men Ches</i>	7.57
Worry <i>Prouy Chroeun</i>	6.50	Difficulties w/ School Attendance <i>Banha-Ha Ah Wata Mean</i>	7.14
Poor Sleep <i>Dek Men Sov Lok</i>	6.36	Sadness/Sad Face <i>Moak Kriem</i>	6.80
Forgetfulness <i>Phlech Phlaing</i>	6.33	Shameful <i>Kour Ouy Amas Nash</i>	6.64
Easily Angered <i>Mour Mao</i>	6.25	Crying <i>Yom</i>	6.53
Shameful <i>Kour Ouy Amas Nash</i>	6.20	Fearfulness <i>Phay Klach</i>	6.47
Headache <i>Chheur (Kbal) Kobal</i>	6.08	Rapid Heart Rate <i>Beh-Dong Doeu Nyaob</i>	6.33
Crying <i>Yom</i>	5.87	Easily Angered <i>Mour Mao</i>	6.25
Other Physical Ailments <i>Chum-Gneu Reang Kai Phseng Teat</i>	5.85	Poor Appetite <i>Ort Khlean Aha (Ort Khlean Bay)</i>	6.25
Thinking Too Much <i>Kit Chraern</i>	5.67	Thinking Too Much <i>Kit Chraern</i>	6.22
Difficulties w/ Learning <i>e.g., Rien Men Ches</i>	5.50	Worry <i>Prouy Chroeun</i>	6.08
Isolation/Withdrawal <i>Ek Ka / Dork Khloun Pi Ke Eng</i>	5.20	Headache <i>Chheur (Kbal) Kobal</i>	5.94
Difficulties w/ School Attendance <i>Banha-Ha Ah Wata Mean</i>	4.86	Stomach Ache <i>Chour Kro Pheah</i>	5.25
Sad Face <i>Moak Kriem</i>	4.42	Other Physical Ailments <i>Chum-Gneu Reang Kai Phseng Teat</i>	5.21
Verbal Aggression <i>Sam Dey Kach/Sam Dey Bampean</i>	3.50	Isolation/Withdrawal <i>Ek Ka / Dork Khloun Pi Ke Eng</i>	5.13
-		Problems w/ Peers <i>Banha-Ha Jea Muy Met Pheak</i>	4.29

Note: Only responses reported by > 3 interviewees included.

**Table 5.** Areas of Functioning Impacted by Posttraumatic Stress

Area of Functioning	Caregivers (%)*	Children (%)*	Frequently-Reported Examples	
Physical	97%	100%	Headache Trembling Difficulty breathing Dizziness	Health is weak Pale face Stunted growth Rapid heart rate
School	93%	97%	Poor concentration Doesn't want to attend Poor comprehension	Decreased studying Poor grades Cannot follow lesson
Cognitive	87%	87%	"Difficulty thinking" Shameful "Doesn't want to do anything" "Can't remember" Hopelessness	"Cannot think deeply" Anxious Self-pity Anhedonia Perseveration
Affective	77%	87%	Upset Embarrassed Frightened	Bad temper/Angry Hiding to cry Blunted affect
Friends	63%	83%	Doesn't want to engage peers Peers don't want to play Isolation	Embarrassed due to shame Low quality friendships Frequent conflict with peers
Daily Work	60%	70%	Low quality work Doesn't want to do daily work	Forgetful of directions Defiance in completing work
Family	60%	53%	Poor communication w/ family Resistant to join family activities Anger toward caregivers	Conflict with siblings Conflict with caregivers Running away from home

Note: \*Percentage of participants who reported the area of functioning was impacted by one or more posttraumatic problems.

## Study 2

### **Key Expressions of Posttraumatic Distress in Cambodian Children: Clinician Perspectives on Cause, Impact, and Treatment**

### **Abstract**

Child trauma and posttraumatic stress in Cambodia is highly prevalent, perpetuated within a postwar sociocultural context. Western conceptualizations of posttraumatic stress are likely a poor fit across cultural contexts, and examination of locally meaningful expressions of distress is needed to provide culturally-sensitive assessment and treatment of traumatized Cambodian children. The acceptable, feasible, and sustainable incorporation of expressions of distress into assessment and intervention development relies on key mental health professionals operating in Cambodia, who can provide invaluable perspectives on child trauma in this particular ethnocultural context. In this study, qualitative interviews were conducted with 15 Cambodian mental health professionals (MHPs) who work directly with trauma-affected Cambodian children. MHPs were presented with 7 key posttraumatic problems derived from previous qualitative interviews with Cambodian children and caregivers, and discussed 1) causes of these problems, 2) impact of the problem on the child on those around them, 3) current treatment for the problem in Cambodia, and 4) recommended treatment. MHPs provided key insights into trauma and posttraumatic stress conceptualization in the Cambodian context for key target problems, including palpitations, difficulties in school, headache, and thinking too much, and highlighted future directions for assessment and intervention. Recommendations are discussed in regard to programming design and organizational training development to promote culturally salient, feasible, and sustainable mental health service provision in Cambodia.

## Introduction

The Cambodian experience during and after the Khmer Rouge regime resulted in multiple severe risk factors for poor mental health outcomes. War, genocide, poverty, displacement, famine, torture, gender-based violence, and severance of families and social networks set the stage for pervasive physical and mental health problems across Cambodia. Studies of posttraumatic stress indicate high rates across generations. In a longitudinal national probability sample of 1,017 Cambodians, Sonis and colleagues (2009) found that 11.2% of adult Cambodians had current probable PTSD; for those who were at least 3 years old during the Khmer Rouge epoch, the rate of PTSD was 14.2%. Other studies indicate rates as high as 28.4% for PTSD among Khmer Rouge survivors (de Jong, Komproe, & Van Ommeren 2001). In a comparative community survey, Mollica and colleagues (2014) noted the Cambodian population continues to suffer “psychiatric morbidity and poor health” 25 years after the Khmer Rouge regime.

Although the notion of trauma in post-genocide Cambodia is almost exclusively used in reference to the country’s millions of genocide survivors, attention must also be directed to the impact of trauma on Cambodia’s youth. Estimates indicate over half of Cambodian children experience direct abuse (52.7% for girls, 54.2% for boys), and over 70% experience other forms of trauma (Ministry of Women’s Affairs, 2013). Accordingly, Cambodian children continue to display abnormally elevated rates of posttraumatic stress, even as compared to children from neighboring countries involved in war conflicts (e.g., Thailand and Vietnam; Kinseth, 2009). Additionally, Cambodian youth face longstanding sociopolitical, cultural, and intergenerational factors that may compound the impact of direct victimization.

Cambodia's youth is being raised by generations with primary or secondary genocide experience, indicating the need to explore intergenerational trauma transmission as a potential contributing factor in explaining elevated posttraumatic stress among Cambodian youth, as trauma "residue" across generations is consistently supported in the literature via elevations in symptomatology and other vulnerabilities for offspring of trauma survivors (Novac & Hubert-Schneider, 1998; for a review, see Lambert, Holzer, & Hasbun, 2014). The intersection of direct trauma exposure, secondary exposure due to parental traumatization, widespread societal violence, poverty, and erosion of health and education systems that are sequelae of the Khmer Rouge regime all shape the experiences of Cambodian youth; consequently, posttraumatic reactions of Cambodian youth may not conform to conventional conceptualizations of PTSD (Kinseth, 2009). Mental health professionals operating in Cambodia are presented with the substantial challenge of designing and implementing trauma-focused programs that assess and target problems and symptoms unique to Cambodia's ethnocultural context.

Despite the substantial impact mental health problems have on social, political, and economic systems in Cambodia, little attention and funding is provided for mental health care (it is estimated about 0.02% of Cambodia's national health budget is allocated for mental health services; McLaughlin, 2012). In the mid-2000s, the Ministry of Health in Cambodia initiated the National Program for Mental Health in collaboration with health development partners, NGOs, local authorities and communities to address mental health and substance abuse. By 2010, there were 39 psychiatrists, 45 psychiatric nurses, 170 basic mental physicians, and 233 basic mental nurses appointed at national and provincial hospitals, and training programs implemented throughout Cambodia have increased the number of social workers and counselors at the community level. Although a drastic improvement, the number of mental health staff remains

inadequate for Cambodia's population of approximately 16 million people. As an example, mental health care providers in the Khmer-Soviet Friendship Hospital manage about 30-40 patients each day (Schunert et al., 2012). Thus, health care provision in Cambodia is often managed and implemented by private healthcare institutions, such as non-governmental organizations (NGOs). In 2010, private healthcare institutions outnumbered government health care facilities by about 5 to 1 (Schunert et al., 2012).

Private institutions typically rely on foreign aid for funding and program development, which often leads to non-Cambodian professionals providing training, diagnostic tools, and intervention recommendations (Suárez & Marshall, 2014). In combination with a relative lack of research regarding culturally-specific symptom presentations in Cambodia, many of the mental health assessments and interventions utilized with Cambodian populations were designed and validated with predominantly Western populations. Cross-cultural studies of PTSD consistently indicate trauma and posttraumatic distress criteria shaped by political, legal, economic, social, and medical influences specific to Western contexts may not be a comprehensive construct to measure and target in efforts of alleviating distress in international populations (Chhim, 2012; Cunningham & Cunningham, 1997; de Jong, Komproe, Spinazzola, van der Kolk, & Van Ommeren, 2005; de Jong et al., 2001; Hinton & Good, 2016; Hinton & Lewis-Fernandez, 2011; Kohrt & Hruschka, 2010); Lewis-Fernández et al., 2010; Marsella, Friedman, Gerrity, & Scurfield, 1996; Michalopoulos et al., 2015).

Ethnoculturally-specific expressions of distress, including linguistically marked idioms, represent culturally meaningful, shared experiences, rooted in local concepts of health and illness, that express distress in locally intelligible terms (Hinton & Lewis-Fernández, 2010; Keys, Kaiser, Kohrt, Khoury, & Brewster, 2012; Kirmayer & Young, 1998). In Cambodians,

idioms of distress studies indicate somatic symptoms as an important sequelae of distress expression (Hinton et al., 2013). For example, symptom presentations often attribute the experiences of arousal-reactive symptoms in anxiety-related psychological distress (e.g., heart palpitations, sweating, dizziness) to a “weak heart” (*khsaoy beh doung*; Hinton, Hinton, Um, Chea, & Sak, 2002). Other examples of somatic symptom expression in Cambodian populations include dizziness, headache, and muscle soreness among an array of other physical ailments (Hinton, Kredlow, Pich, Bui, & Hofmann, 2013; Mollica et al., 1993).

Affective and emotional experiences associated with posttraumatic stress may lead to and perpetuate somatic symptomatology. For Southeast Asian populations, anger expression is indicated as playing a particularly important role in posttraumatic stress presentations (Abe, Zane, & Chun, 1994; Hauff & Vaglum, 1994; Hinton, Hsia, Um, & Otto, 2003), and is considered central to the socio-cultural course of trauma-related disorders in Cambodians (Hinton, Rasmussen, Nou, Pollack, & Good, 2009). Illustratively, in a sample of 193 Cambodian refugees in the United States, Hinton and colleagues (2009) found that anger expression episodes resulted in multiple somatic symptoms (71% of participants experienced 4 or more DSM-IV panic attack somatic symptoms), catastrophic cognitions of heart arrest and neck-vessel rupture (84% and 81%, respectively), and trauma flashbacks (68%), with those with anger episodes in the previous month being about 4 times more likely to meet criteria for PTSD. Other idioms of distress in Cambodian populations include “thinking too much” (*kit chraern*; Hinton, Reis, & Jong, 2015, 2016) and “broken courage” (*baksbat*; Chhim, 2012; 2013).

The examination of expressions of distress helps illuminate barriers to accurate prevalence assessments and effective client–provider communication (Hinton & Lewis-Fernandez, 2010; Keys et al., 2012), and thus hold significant clinical relevance. However, the

majority of research targeting Cambodian distress expression and treatment has been conducted in adult refugee populations, and may not always directly inform mental health professionals implementing interventions in Cambodia, particularly for those working with child populations. In order to integrate local expressions of distress into assessment and treatment design in acceptable, feasible, and sustainable ways in Cambodia, it is crucial to engage local providers implementing community programs and interventions. Cambodian mental health professionals, and their key insights, are vital to the meaningful incorporation of expressions of distress research findings into practice. The importance of clinician perspectives is three-fold:

1. Cambodian clinicians provide an in-the-field view of how those assessing and implementing mental health services conceptualize the causes and impact of posttraumatic problems.
2. Cambodian clinicians are in a unique position to provide recommendations for mental health treatment in Cambodia that are acceptable, feasible, and sustainable.
3. Cambodian clinicians are particularly able to nest experiences and expressions of trauma in the Cambodian social, political, and cultural context.

Clinician perspectives in prior studies have been incorporated into treatment design and adaptation by enriching conceptualizations of trauma experience and expression (e.g., Rettmann, Sigford, & Friedman, 2009), identifying barriers to trauma treatment implementation and adherence (e.g., Back, Waldrop, & Brady, 2009; Salyers, Evans, Bond, & Meyer, 2004) and improving navigation of contextual mental health care systems (e.g., Frueh, Cusack, Grubaugh, Sauvageot, & Wells, 2006).

The current study aims to investigate key distress presentations among traumatized children. We interviewed mental health professionals working with traumatized child

populations in Cambodia to enrich and extend previous findings of posttraumatic expressions in Cambodian children, according to the Design, Implementation, Monitoring, and Evaluation of mental health and psychosocial assistance programs for trauma survivors in low resource countries – Module 1 (DIME; Applied Mental Health Research (AMHR) Group, 2013). Clinicians will provide key insight into the causes and impact of posttraumatic problems, and trauma treatment recommendations. Response themes can inform assessment and intervention design and implementation in organizations in Cambodia targeting child mental health.

## **Methods**

### **Participants**

In collaboration with three community organization partnerships, interviews were conducted with 15 Key Informants (in this case, mental health professionals working with trauma-exposed children). It was important Key Informants were local members of the community in which the target population lives and works, not outsiders who visit the community or are living there temporarily (AMHR group, 2013). Thus, to participate in the interviews, participants needed to be 1. a native Cambodian and 2. working in the field of mental health care of trauma-exposed Cambodian children. Participants were recruited from the three following organizations:

The Transcultural Psychosocial Organization (TPO) Cambodia is a not-for-profit non-governmental organization (NGO) run and staffed entirely by Cambodians. Through a range of grass-roots projects, community-based structured programs, a mental health treatment center in Cambodia's capitol city Phnom Penh, consultancy, research, and initiatives to increase mental health awareness, TPO Cambodia aims to improve the mental health of Cambodians with

traumatic experiences and promote positive health policy change. Since opening in 1995, TPO Cambodia has provided mental health care and support to more than 200,000 Cambodians.

Cambodia Children's Trust (CCT) is a community development organization with a holistic model of programs and services that enable vulnerable children in the Battambang province of Cambodia to break free from the intergenerational cycle of poverty, while promoting family preservation and reintegration.

Komar Rikreay Cambodia (KMR) provides social services to vulnerable children and their families in the Battambang province of Cambodia, including temporary transitional home and alternative care facilities, health, education, economic development support, mental health support, and advocacy for the children's safe and sustainable community reintegration.

### **Interview Protocol**

Interview question content for the current study were drawn from results from a study conducted just prior (Figge, Martinez-Torteya, Taing, Chhim, & Hinton, under review), in which in-person interviews were conducted with 30 children with trauma experiences and their 30 caregivers (n=60) in the Battambang province of northwest Cambodia. Participants were caregivers of children and children who were receiving mental health services at TPO at the time of the interview to address exposure to domestic violence and other traumatic events. Both caregivers and children were asked the following questions regarding child experiences and expressions:

1. *“What are all the problems that affect children after seeing or experiencing things that are scary, dangerous, or violent?”*
2. *“How would you rate the severity of this problem in children's daily lives?”*

Analyses provided a final summary aggregate of problems, ranked by frequency and severity, to identify the most common and most severe posttraumatic problems.

For the interviews in the current study, the 2 most prevalent and 2 most severe child-reported and caregiver-reported problems were selected, which resulted in 8 reported problems. Both children and caregivers reported the same problem (easily angered, or *mour mao*) as most frequent, resulting in a total of 7 problems presented individually to each Key Informant:

1. Easily angered (*mour mao*) – Child- and caregiver-report, frequent
2. Headaches (*chheur kobal*) – Child-report, frequent
3. Crying (*yom*) – Caregiver-report, frequent
4. Fearfulness (*phay klach*) – Caregiver-report, severe
5. Rapid heart rate (*beh-dong doeu nyaob*) – Caregiver-report, severe
6. Difficulties with comprehension/learning in school (*rien men ches*) – Child-report, severe
7. Poor sleep (*Dek men sov lok*) – Child-report, severe

For each problem listed above, the following four questions were asked to Key Informants (for a total of 28 questions to each participant):

1. “*What are the causes of [problem x]?*”
2. “*What are the effects of [problem x] on the individual and those around them?*”
3. “*How is [problem x] usually treated in Cambodia?*”
4. “*What should be done to treat [problem x]?*”

Responses were elicited with minimal follow-up questions to allow for participant-driven, in-depth explorations of these domains. Following administration of interview questions, participants completed a brief demographic questionnaire.

All interviews were conducted by the principal investigator with an on-the-spot translator to allow for all participant responses to be in Khmer. The same interviewer and translator was used for all interviews, and the translator underwent a 2-day training procedure according to DIME procedure, IRB Human Subjects training, and qualitative interviewing techniques, and conducted two pilot training interviews prior to data collection. Interviews lasted approximately one hour.

## **Data Analysis**

All MHP interviews were audio recorded and saved across two encrypted memory drives. The English translation portions of the interviews were transcribed by the interviewer and undergraduate research assistants. Interviews were open-coded to create a framework based on themes outlined in the DIME procedure and subthemes within and across interviews (Morse & Field, 1995). Theme analyses of MHP interviews consisted of organizing response themes into the following categories, according to DIME:

- Perceived causes of the reported problem
- Effects on the person with the problem and on others close to them
- What people currently do about it
- What should be done about it (if the resources are available).

The final result is a summary sheet for each posttraumatic problem, with common responses listed under each of the four subheadings listed above. Findings were presented to the research staff at TPO Cambodia to reflect, validate, and modify themes, and to increase credibility and acceptability of findings.

## **Results**

Interviews were conducted with 15 Cambodian mental health professionals who work with Cambodian children and families with trauma experiences across three organizations. Participants included 5 males and 10 females whose ages ranged from 27 – 55 years ( $M = 37.47$  years). For highest education completed: less than high school ( $n = 1$ ), high school ( $n = 2$ ), some college ( $n = 1$ ), a bachelor's degree ( $n = 6$ ), and a postbachelor's degree ( $n = 5$ ). All participants worked clinically with trauma-affected child populations (11 identified as counselors, 4 as social workers) exposed to the following trauma types: emotional abuse ( $n = 14$ ), domestic violence ( $n=13$ ), physical abuse ( $n = 12$ ), sexual abuse ( $n = 12$ ), neglect ( $n = 12$ ), illness and disease ( $n = 10$ ), malnutrition ( $n = 10$ ), and community violence ( $n= 8$ ).

Posttraumatic problems rated most frequently and most severe by children and caregivers are presented below with corresponding Key Informant responses organized by 1. Causes of the problem, 2. Effects on the individual and those around them, 3. Current treatment, and 4. What treatment should be for the problem. Total number of Key Informants reporting each response is listed alongside the description. In each of the following sections we discuss the results, organized as emotional, somatic, cognitive, and sleep problems.

<<< Insert Table 1 Here >>>

**Emotional Problems: Easily Angered (*Mour Mao*), Crying (*Yom*), and Fearfulness (*Phay Klach*)**

The most frequently reported causes were harsh or unfair parent discipline for easily angered (*mour mao*), physical illness for crying (*yom*), and trauma for fearfulness (*phay klach*). Fearfulness was also reportedly caused by family and community violence, and concern of ghosts and spirits, often as a result of stories from adults attempting to dissuade certain behaviors deemed unsafe.

*Children run around sometimes in some community or some rural area. If the kids run around or they try to see things, to experiment with the environment around them, the parents try to ban them by saying “don’t go over there, there are witches or there are ghosts.” It creates fearfulness inside them. (Counselor, female, age 32)*

The most frequently reported effects of crying (*yom*) and fearfulness (*phay klach*) were congruent: physical health and family relationships. Easily angered, however, was most frequently reported to lead to physical aggression and interfere with school success. Fearfulness was reported to beget other internalizing-type problems, including withdrawal and low self-worth/low confidence, whereas anger was reported to beget other internalizing (withdrawal and

suicide/self-harm ideation) and externalizing-like symptoms (aggression, and later drug/alcohol use and criminality). All emotional problems were reported to impact school success, family relationships, peer relationships, and ability to effectively communicate thoughts and needs.

*The impact of anger on the kids is that it is easy for them to lose opportunity for communication and it will also affect their education. (...) If that kid has anger, it would lead him/her to physical violence, like he or she would destroy all the properties in the house and that would affect people around them and bother them. So if anger is not solved for kids, it would lead the kid to be not a very nice person for society in the future.* (Social Worker, female, age 42).

Overall, mental health professionals (MHPs) in this sample most frequently reported the following treatments as currently employed in Cambodia to address reported affective/emotional problems: talk therapy, family therapy, psychoeducation, building rapport/being an empathic listener, and relaxation strategies (namely, breathing exercises, meditation, and progressive muscle relaxation). MHPs highlighted incorporating Buddhist ideology into meditation practices and recommending religious-based healing practices to children and families.

*According to my experience we usually do meditation based on practices in Buddhism and we also let the person talk, to express their feeling to another person that they have trust in them. But culturally we sometimes tell people go to pagoda to have water blessing in order to feel nice or to feel better.* (Counselor, Female, age 38)

Specific to fearfulness, over a third of the mental health professionals reported they employ exposure therapy techniques. Recommendations for future treatment highlighted increased coordination of care across a child's social ecology (MHPs noted teachers, family members,

psychiatrists, medical doctors, spiritual leaders, close friends, and others who live near the child), particularly for easily angered and fearfulness:

*I think the best intervention is not looking at the child, it is looking at the person in the environment. If teachers are not a part of the intervention, then what we could offer is education to normalize the phase, to educate the peers, the family, so they don't put more pressure on the child. (Counselor, male, age 43)*

### **Somatic Symptoms: Headache (*Chheur Kbal*) and Rapid Heart Rate (*Beh-Dong Doeu Nyaob*)**

The four most frequently reported causes of headache (*chheur kbal*) highlight the variety of perceived etiologies of this problem: thinking too much (cognitive), poor nutrition (physical health), school difficulties (functional impairment), and trauma (experiential). Rapid heart rate (*beh-dong doeu nyaob*), on the other hand, was largely considered a result of trauma and fear-based posttraumatic stress (fearfulness and flashbacks). Somatic symptoms shared the following perceived causes: thinking too much, trauma, anger, and physical illness. In many cases, MHPs noted somatic symptoms were an expression of psychological distress, often modeled through parenting:

*In Cambodia, expressing through physical symptoms is very common. (...) Instead of saying, "I am sad," or "I hate someone," this is not the feeling the community, or the environment accepts for the person to express. (...) Through the parenting of Cambodians, they learn that when they act distressed, they express physical. In children, I see it as an expression of mourning from an adult. (Counselor, female, age 38)*

The frequently reported effects of headache are as diverse as the causes, including school difficulties, family relationships, physical aggression, and low self-worth/low confidence. Rapid

heart rate was most frequently reported to impact the child's physical health, including later high blood pressure and heart problems, such as increased risk for cardiac arrest. Both somatic symptoms were reported to impact school success, family relationships/stress, low self-worth/low confidence, ability to communicate their thoughts and needs, later risk for physical health problems, withdrawal, and an increase in financial burden for families.

Both somatic symptoms were reported to be most commonly treated by relaxation strategies and medication/medical treatment:

*Particularly with a chest problem, they consult a medical doctor first. (...) For me, this [case] was clearly trauma-related, and there was one physician giving her injections for a heart problem, and we just didn't know what this injection was. And then the whole community believed this was a heart problem. They treated her like they didn't want her to have a heart attack. (Counselor, female, age 38)*

However, no MHPs reported medical treatment as a recommendation for future treatment. Instead, increased coordination of care with psychiatrists and primary care physicians was the most frequent response for both somatic symptoms. MHPs noted increased time and effort should be spent delineating whether the cause of headaches and rapid heart rate are physical, psychological, or both, through increases in coordinated care, more in-depth screening, and/or utilization of more formal assessment tools:

*As a result of trauma, a complete assessment should be done. And actually in assessment we don't have any formal questionnaires. We use very simple questions, like giving us a guess. I think we should have more formal assessment tools. (Social Worker, male, age 29)*

**Cognitive Problems: Difficulties with Learning and Comprehension in School (e.g., *Rien Men Ches*)**

The most frequently reported cause of school difficulties were problems with teachers, including low teacher skill and contentious teacher-child relationships. Next, MHPs attributed school difficulties to trauma, family violence, and parent discipline surrounding schooling expectations. The effects of school difficulties also included impaired family/peer relationships (including discrimination from others) and externalizing behaviors (i.e., physical aggression) but were otherwise largely occupational and future-oriented, including intergenerational effects of children becoming parents that teach their children that education holds little value, impaired career prospects, and future drug/alcohol use:

*They don't want to study because they think that the study has no value for them, so it would affect the family development because its kind of creating a cultural thing in that family. It would affect one generation to another generation and that perspective will stay in that family. (Social Worker, female, age 36)*

*The child would have no self-esteem. Evokes anger, evokes aggression, dropping out of school. Leading to other dangerous behaviors like smoking, trying alcohol early. They go out with friends and try dangerous behaviors. (Counselor, male, age 47)*

MHPs reported school difficulties also leads to a loss of a societal resource, an important aspect to a postwar country in rehabilitation:

*So not just this problem, but also the previous problems we have talked about, it would affect to the society as well because kids are the younger generation that need to be educated so they can have knowledge to develop the country. So if they are having a*

*problem and they can't really concentrate or they can't study, it affects the society.*

(Counselor, female, age 27)

Reported current treatment for school difficulties align closely with recommended treatments, including coordinated care with teachers, family therapy, and skills/vocational training for students struggling academically. Additionally, MHPs recommended increasing access to/utilizing more formal learning assessments for treatment/academic planning and increasing the number of counselors working within Cambodian schools:

*I think the best way to treat this problem is to have a counselor in school. We need to work cooperatively with the youth, education setting, sport department, and family in order to provide counseling in school so that the kids are helped.* (Counselor, male, age 37)

### **Sleep Problems: Poor Sleep (*Dek Men Sov Lok*)**

Key causes of poor sleep included thinking too much, trauma flashbacks, poor nutrition, and physical illness:

*The kids think too much and they can't really get out of that problem or that feeling. And that feeling keeps haunting them and that's why they can't sleep well. The other problem is that the problems they have experienced in the past keeps haunting them, like flashbacks to the experiences they had before.* (Counselor, female, age 27)

These causes are most closely aligned with those reported for headache (thinking too much, poor nutrition, trauma), suggesting MHPs consider headaches and poor sleep as interrelated by common causes and effects, as headaches were listed as an effect of poor sleep, and vice versa. The most common effect of poor sleep was school difficulties, followed by physical health, easily angered (*mour mao*), and impaired family/peer relationships.

Current and recommended treatment for poor sleep also had considerable overlap, including relaxation strategies, family therapy, psychoeducation, and improving sleep hygiene. However, similar to somatic symptoms, current treatment included medication/medical treatment, whereas recommended treatment included increased coordination of care, primarily with families and medical providers:

*Looking at the child as a whole, at the biological and psychological aspects, and their environment as well. So the intervention is always for the child's needs, physical and psychological, and how the environment interacts with them. (Counselor, female, age 38)*

### **Discussion**

Children and caregivers associate a range of affective, emotional, cognitive, and somatic problems with exposure to trauma. MHPs indicated several causes and effects for posttraumatic problems that align with etiological and symptomatic conceptualizations found across cultural contexts, such as trauma and violence exposure leading to anger, fearfulness, and functional impairment. In addition, their responses provide information specific to the Cambodian context, such as insights into somatic symptoms like headache and palpitations, causes such as thinking too much, ghosts/spirits, poor nutrition, child labor demands, and Cambodian family dynamics (parenting norms and family hierarchy structures), and effects such as thinking too much and symptom expression as a release of physical tension.

Similarly, current treatment and recommended directions for intervention share commonalities and uniqueness with international contexts. Cambodian MHPs conduct individual, family, and group therapy targeting trauma experiences, family violence, and substance use, and many MHPs use exposure therapy as a front-line treatment for fearfulness. However, some MHPs in Cambodia also integrate Buddhist ideology into meditation and

relaxation practices, tailor parent training and family therapy to Cambodian family dynamic contexts, and somatic symptoms with reportedly psychological causes are often treated by medical providers. Taken together, recommended future directions for intervention according to MHPs indicated consultation with spiritual leaders, increasing mental health services as part of multidisciplinary, coordinated care (alongside teachers, medical providers, families, friends, spiritual leaders, and close others), and access to more formal assessment tools.

The interrelationships between problems reported in this study highlight the complexity of how symptoms are expressed, perpetuated, and reinforced, often in multidirectional ways. For example, school difficulties were a problem listed by children and caregivers, and was also identified by the MHPs as a cause of headaches and an area negatively impacted by all problems examined in this study. School difficulties was also one of the most severe posttraumatic problems as reported by children, highlighting the salience of this problem across patients and providers. From cross-cutting problems such as school difficulties, interrelationship networks can be outlined, such as Figure 1, which diagrams how school difficulties may be caused and perpetuated by other problems, including increased risk for victimization due to family stress.

<<< Insert Figure 1 Here >>>

Another frequent response that cross-cut several problems was thinking too much (TTM; *kit chraern*), a cultural idiom with robust extant support as an important expression of distress across non-Western contexts (Hinton et al., 2015, 2016; Kaiser et al., 2015). In the current study, TTM was a reported cause of headaches, poor sleep, rapid heart rate, and school difficulties, and an effect of rapid heart rate. See Figure 2.

<<< Insert Figure 2 Here >>>

Hinton and colleagues (2015, 2016) have likewise found that “thinking a lot” is a key complaint that frequently triggers poor sleep and headache, as well as multiple somatic symptoms; it also often triggers poor concentration, which might also generate difficulties in school, another key complaint in the current study.

Somatic symptoms explored in the current study align with extant findings that indicate panic and palpitations are prominent among Cambodian victims (Hinton, Pich, Chhean, Safren, & Pollack, 2006; Hinton, Hofmann, Pitman, Pollack, & Barlow, 2008); further, emerging literature indicates the importance of headache as a key complaint (Hinton, Reis, & de Jong, 2015, 2016, in press). Other key complaints identified here, such as poor sleep and emotional problems, should also be evaluated and treated.

Current findings provide local frameworks of mental health conceptualization and treatment for several key problems that present in trauma-affected Cambodian children, and can inform international organizations that aim to work collaboratively within the Cambodian context. For example, many MHPs noted family therapy and parent training as recommended directions for treatment, which is fitting given the highly frequent reporting of harsh parent discipline and family violence as causes of these posttraumatic problems. Parent training models of intervention have strong empirical support in Western populations, such as Parent-Child Interaction Therapy (PCIT; e.g., Eyberg, 2005), which has also shown promising treatment outcomes in trials in Asia, such as Taiwan, Hong Kong, and mainland China with minor cultural adaptations (Chen, & Fortson, 2015; Leung, Tsang, Heung, & Yiu, 2009; Leung, Tsang, Sin, & Choi, 2015). Adapting parent training interventions for the Cambodian family context may be a future direction of treatment that aligns with MHP recommendations.

As palpitations were indicated as a particularly severe posttraumatic problem by caregivers, and as an interrelated, multidirectional symptom by MHPs, Cambodian youth may benefit from culturally adapted treatment models that target somatic symptomatology and demonstrate reductions in PTSD to be concomitant with reductions in somatic symptoms, including Culturally Adapted-Cognitive Behavioral Therapy (CA-CBT) and somatic-focused therapy for traumatized refugees (Hinton et al., 2006, 2008; Hinton, Rivera, Hofmann, Barlow, & Otto, 2012). However, these treatment models were not designed for child populations and have not been implemented in Cambodian populations still residing in Cambodia.

Other intervention strategies recommended by MHPs in this study for further development include coordination of care and more formal assessment tools. In regard to posttraumatic stress assessment, Hinton and colleagues (2012) developed the Cambodian Symptom and Syndrome Inventory (C-SSI) to better capture Cambodian-specific expressions of distress, including “thinking too much.” Scores on the C-SSI increased significantly across levels of PTSD severity, illustrating that a Cambodian who meets criteria for PTSD also has several other culturally salient somatic symptoms. This measure highlights the integration of DSM criteria found across cultural contexts with Cambodia-specific distress expressions to provide a more comprehensive and accurate representation of distress in this population. However, the C-SSI was designed for Cambodian refugee, adult populations, and may require adaptation to Cambodian child populations still residing in Cambodia.

Trauma-oriented trainings conducted with local organizations should include findings specific to the Cambodian context as much as possible to maximize cultural applicability. Such trainings may benefit from incorporating the current findings in the following ways: 1. To highlight key expressions of distress and associated domains of functioning salient to Cambodian

caregivers and children, 2. To increase knowledge of the role of trauma and posttraumatic stress in child symptoms and functioning in Cambodia, 3. To provide language-specific symptom and problem indicators for screeners and assessment to better capture trauma-affected Cambodian children, 4. To facilitate collaborative development of treatments across Cambodian mental health providers/organizations, and 5. To demonstrate an emphasis on cultural sensitivity and importance of local context in organizational collaboration. The current study is one of several that can contribute to culturally-sensitive training development in Cambodia (see: Chhim, 2017; Figge et al., under review; Hinton et al., 2012; Hinton, Hofmann, Pollack, & Otto, 2009; Nickerson & Hinton, 2011; Saraceno et al., 2007; Stammel et al., 2013; Stockwell, Whiteford, Townsend, & Stewart, 2005).

Several limitations should be acknowledged. First, the majority of participants (11 of 15) were recruited via a single organization, TPO Cambodia. Thus, these MHPs often underwent similar trainings; organization-level perspectives on service provision may somewhat be a reflection of which trainings were offered. However, this bias is of circumstance, as TPO Cambodia is the only NGO in Cambodia primarily focused on mental health and many social work and support service personnel in other organizations around Cambodia travel to TPO for mental health trainings. Also, although a strength of this study is that interviews were conducted in the local language, interview translation may forego meaningful language-specific terms and descriptions. To combat this, every step of study design, data collection, coding, analysis, and manuscript preparation was implemented within a reflexive process with Cambodian research and clinical personnel employed at TPO Cambodia.

To conclude, Cambodian MHPs offer unique perspectives on the current state of posttraumatic problem conceptualization, treatment, and future directions. MHPs in the current

study highlighted key domains salient to the Cambodian context, such as somatic symptoms like headache and palpitations, causes such as thinking too much, ghosts/spirits, poor nutrition, child labor demands, and effects such as thinking too much and symptom expression as a release of physical tension. Further, MHPs recommended several future directions for trauma assessment and intervention in Cambodia, including increased consultation of spiritual leaders, coordination of care across the child's social ecology, and access to more formal assessment tools. Foreign and local organizations operating within Cambodia may benefit from current findings to inform training development, assessment and intervention design, and sustainable mental health service provision.

## References

- Abe, J., Zane, N., & Chun, K. (1994). Differential responses to trauma: Migration-related discriminants of post-traumatic stress disorder among Southeast Asian refugees. *Journal of Community Psychology, 22*(2), 121-135.
- Applied Mental Health Research (AMHR) Group: DIME Modules. [http://www.jhsph.edu/research/centers-and-institutes/center-for-refugee-and-disaster-response/response\\_service/AMHR/](http://www.jhsph.edu/research/centers-and-institutes/center-for-refugee-and-disaster-response/response_service/AMHR/).
- Back, S. E., Waldrop, A. E., & Brady, K. T. (2009). Treatment challenges associated with comorbid substance use and posttraumatic stress disorder: clinicians' perspectives. *The American Journal on Addictions, 18*(1), 15-20.
- Chen, Y. C., & Fortson, B. L. (2015). Predictors of treatment attrition and treatment length in Parent-Child Interaction Therapy in Taiwanese families. *Children and youth services review, 59*, 28-37.
- Chhim, S. (2012). Baksbat (broken courage): The development and validation of the inventory to measure baksbat, a Cambodian trauma-based cultural syndrome of distress. *Culture, Medicine and Psychiatry, 36*(4), 640-659. doi:10.1007/s11013-012-9279-6.
- Chhim, S. (2013). Baksbat (broken courage): a trauma-based cultural syndrome in Cambodia. *Medical anthropology, 32*(2), 160-173.
- Chhim, S. (2017). Mental Health in Cambodia. In *Mental Health in Asia and the Pacific* (pp. 135-144). Springer US.
- Cunningham, M., & Cunningham, J. D. (1997). Patterns of symptomatology and patterns of torture and trauma experiences in resettled refugees. *Australian and New Zealand journal of psychiatry, 31*(4), 555-565.

- de Jong, J.T., Komproe I.H., Van Ommeren M. (2001) Lifetime events and posttraumatic stress disorder in 4 postconflict settings. *Journal of the American Medical Association*, 2001;286:555–562.
- de Jong, J. T., Komproe, I. H., Spinazzola, J., van der Kolk, B. A., & Van Ommeren, M. H. (2005). DESNOS in three postconflict settings: Assessing cross-cultural construct equivalence. *Journal of Traumatic Stress*, 18(1), 13-21.
- Eyberg, S. M. (2005). Tailoring and adapting parent–child interaction therapy to new populations. *Education and Treatment of Children*, 28, 197-201.
- Frueh, B. C., Cusack, K. J., Grubaugh, A. L., Sauvageot, J. A., & Wells, C. (2006). Clinicians' perspectives on cognitive-behavioral treatment for PTSD among persons with severe mental illness. *Psychiatric Services*, 57(7), 1027-1031.
- Hauff, E., & Vaglum, P. (1994). Chronic posttraumatic stress disorder in Vietnamese refugees: A prospective community study of prevalence, course, psychopathology, and stressors. *The Journal of nervous and mental disease*, 182(2), 85-90.
- Hinton, D. E., & Good, B. J. (Eds.). (2016). *Culture and PTSD: Trauma in historical and global perspective*. Pennsylvania: University of Pennsylvania Press.
- Hinton, D., Hsia, C., Um, K., & Otto, M. W. (2003). Anger-associated panic attacks in Cambodian refugees with PTSD; a multiple baseline examination of clinical data. *Behaviour Research and Therapy*, 41(6), 647-654.
- Hinton, D. E., Hinton, A. L., Eng, K. T., & Choung, S. (2012). PTSD and key somatic complaints and cultural syndromes among rural Cambodians: The results of a needs assessment survey. *Medical anthropology quarterly*, 26(3), 383-407.

- Hinton, D., Hinton, S., Um, K., Chea, A., & Sak, S. (2002). The Khmer 'weak heart' syndrome: Fear of death from palpitations. *Transcultural Psychiatry*, 39(3), 323-344.
- Hinton, D. E., Hofmann, S. G., Pitman, R. K., Pollack, M. H., & Barlow, D. H. (2008). The panic attack–posttraumatic stress disorder model: Applicability to orthostatic panic among Cambodian refugees. *Cognitive behaviour therapy*, 37(2), 101-116.
- Hinton, D. E., Hofmann, S. G., Pollack, M. H., & Otto, M. W. (2009). Mechanisms of efficacy of CBT for Cambodian refugees with PTSD: Improvement in emotion regulation and orthostatic blood pressure response. *CNS neuroscience & therapeutics*, 15(3), 255-263.
- Hinton, D. E., Kredlow, M. A., Pich, V., Bui, E., & Hofmann, S. G. (2013). The relationship of PTSD to key somatic complaints and cultural syndromes among Cambodian refugees attending a psychiatric clinic: The Cambodian Somatic Symptom and Syndrome Inventory (SSI). *Transcultural Psychiatry*, 50, 347–370.
- Hinton, D. E., & Lewis-Fernández, R. (2010). Idioms of distress among trauma survivors: Subtypes and clinical utility. *Culture, Medicine and Psychiatry*, 34, 209–218.
- Hinton, D. E., & Lewis-Fernández, R. (2011). The cross-cultural validity of posttraumatic stress disorder: Implications for DSM-5. *Depression and Anxiety*, 28, 783–801.
- Hinton, D. E., Pich, V., Chhean, D., Safren, S. A., & Pollack, M. H. (2006). Somatic-focused therapy for traumatized refugees: Treating posttraumatic stress disorder and comorbid neck-focused panic attacks among cambodian refugees. *Psychotherapy: Theory, Research, Practice, Training*, 43(4), 491.
- Hinton, D. E., Rasmussen, A., Nou, L., Pollack, M. H., & Good, M. J. (2009). Anger, PTSD, and the nuclear family: A study of Cambodian refugees. *Social Science & Medicine*, 69(9), 1387-1394.

- Hinton, D. E., Reis, R., & de Jong, J. (2015). The “thinking a lot” idiom of distress and PTSD: an examination of their relationship among traumatized Cambodian refugees using the “Thinking a Lot” Questionnaire. *Medical anthropology quarterly*, 29(3), 357-380.
- Hinton, D. E., Reis, R., & de Jong, J. T. (2016). A transcultural model of the centrality of "thinking a lot" in psychopathologies across the globe and the process of localization: A Cambodian refugee example. *Culture, Medicine, and Psychiatry*, 40, 570-619
- Hinton, D. E., Reis, R., & de Jong, J. (in press). Migraine-like visual auras among traumatized Cambodians with PTSD: Fear of ghost attack and other disasters. *Culture, Medicine, and Psychiatry*.
- Hinton, D. E., Rivera, E., Hofmann, S. G., Barlow, D. H., & Otto, M. W. (2012). Adapting CBT for traumatized refugees and ethnic minority patients: Examples from culturally adapted CBT (CA-CBT). *Transcultural Psychiatry*, 49, 340–365.
- Kaiser, B. N., Haroz, E. E., Kohrt, B. A., Bolton, P. A., Bass, J. K., & Hinton, D. E. (2015). “Thinking too much”: A systematic review of a common idiom of distress. *Social Science & Medicine*, 147, 170-183.
- Keys, H. M., Kaiser, B. N., Kohrt, B. A., Khoury, N. M., & Brewster, A. R. T. (2012). Idioms of distress, ethnopsychology, and the clinical encounter in Haiti's Central Plateau. *Social Science & Medicine*, 75(3), 555-564.
- Kinseth, A. S. (2009). Unspoken Trauma: Breaking the Silence to Heal Cambodia’s youth. *International Studies Association West Annual Conference: Human Consequences of State Political Action*. San Francisco, CA.
- Kirmayer, L. J., & Young, A. (1998). Culture and somatization: clinical, epidemiological, and ethnographic perspectives. *Psychosomatic medicine*, 60(4), 420-430.

- Kohrt, B. A., & Hruschka, D. J. (2010). Nepali concepts of psychological trauma: the role of idioms of distress, ethnopsychology and ethnophysiology in alleviating suffering and preventing stigma. *Culture, Medicine, and Psychiatry*, 34(2), 322-352.
- Lambert, J. E., Holzer, J., & Hasbun, A. (2014). Association between parents' PTSD severity and children's psychological distress: A meta-analysis. *Journal of traumatic stress*, 27(1), 9-17.
- Leung, C., Tsang, S., Heung, K., & Yiu, I. (2009). Effectiveness of Parent—Child interaction therapy (PCIT) among Chinese families. *Research on Social Work Practice*, 19(3), 304-313.
- Leung, C., Tsang, S., Sin, T. C., & Choi, S. Y. (2015). The efficacy of parent—child interaction therapy with Chinese families: Randomized controlled trial. *Research on Social Work Practice*, 25(1), 117-128.
- Lewis-Fernández, R., Hinton, D. E., Laria, A. J., Patterson, E. H., Hofmann, S. G., Craske, M. G., ... & Liao, B. (2010). Culture and the anxiety disorders: Recommendations for DSM-V. *Depression and anxiety*, 27(2), 212-229.
- Marsella, A. J., Friedman, M. J., Gerrity, E. T., & Scurfield, R. M. (1996). Ethnocultural aspects of PTSD: Some closing thoughts. In: *Ethnocultural aspects of posttraumatic stress disorder: Issues, research, and clinical applications*. (pp. 529-538). Washington, DC, US: American Psychological Association.
- McLaughlin, D., & Wickeri, E. (2012). *Mental health and human rights in Cambodia*. New York: Leitner Center.

- Michalopoulos, L. M., Unick, G. J., Haroz, E. E., Bass, J., Murray, L. K., & Bolton, P. A. (2015). Exploring the fit of Western PTSD models across three non-Western low-and middle-income countries. *Traumatology, 21*(2), 55.
- Ministry of Women's Affairs. (2013). UNICEF Cambodia, US Centers for Disease Control and Prevention. *Findings from Cambodia's Violence Against Children Survey: Summary*. Cambodia: Ministry of Women's Affairs, 2014.
- Mollica, R. F., Brooks, R., Tor, S., Lopes-Cardozo, B., & Silove, D. (2014). The enduring mental health impact of mass violence: A community comparison study of Cambodian civilians living in Cambodia and Thailand. *International journal of social psychiatry, 60*(1), 6-20.
- Mollica, R. F., Donelan, K., Tor, S., Lavelle, J., Elias, C., Frankel, M., & Blendon, R. J. (1993). The effect of trauma and confinement on functional health and mental health status of Cambodians living in Thailand-Cambodia border camps. *Jama, 270*(5), 581-586.
- Morse, J. M., & Field, P. A. (1995). *Nursing research: The application of qualitative approaches*. Nelson Thornes.
- Nickerson, A., & Hinton, D. E. (2011). Anger regulation in traumatized Cambodian refugees: The perspectives of Buddhist monks. *Culture, Medicine, and Psychiatry, 35*(3), 396-416.
- Novac, A., & Hubert-Schneider, S. (1998). Acquired vulnerability: Comorbidity in a patient population of adult offspring of Holocaust survivors. *American Journal of Forensic Psychiatry, 19*, 45-58.
- Rettmann, N. A., Sigford, B. J., & Friedman, M. J. (2009). Veterans with history of mild traumatic brain injury and posttraumatic stress disorder: Challenges from provider perspective. *Journal of rehabilitation research and development, 46*(6), 703.

- Salyers, M. P., Evans, L. J., Bond, G. R., & Meyer, P. S. (2004). Barriers to assessment and treatment of posttraumatic stress disorder and other trauma-related problems in people with severe mental illness: Clinician perspectives. *Community Mental Health Journal, 40*(1), 17-31.
- Saraceno, B., van Ommeren, M., Batniji, R., Cohen, A., Gureje, O., Mahoney, J., ... & Underhill, C. (2007). Barriers to improvement of mental health services in low-income and middle-income countries. *The Lancet, 370*(9593), 1164-1174.
- Schunert, T. (2012). *Cambodian mental health survey 2012*. Royal University of Phnom Penh, Department of Psychology.
- Sonis, J., Gibson, J. L., De Jong, J. T., Field, N. P., Hean, S., & Komproe, I. (2009). Probable posttraumatic stress disorder and disability in Cambodia: associations with perceived justice, desire for revenge, and attitudes toward the Khmer Rouge trials. *Jama, 302*(5), 527-536.
- Stammel, N., Heeke, C., Bockers, E., Chhim, S., Taing, S., Wagner, B., & Knaevelsrud, C. (2013). Prolonged grief disorder three decades post loss in survivors of the Khmer Rouge regime in Cambodia. *Journal of affective disorders, 144*(1), 87-93.
- Stockwell, A., Whiteford, H., Townsend, C., & Stewart, D. (2005). Mental health policy development: case study of Cambodia. *Australasian Psychiatry, 13*(2), 190-194.
- Suárez, D., & Marshall, J. H. (2014). Capacity in the NGO sector: Results from a national survey in Cambodia. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations, 25*(1), 176-200.

## Stage 2 Tables and Figures

Table 1. Mental Health Professional (MHP) Perspectives on Child- and Caregiver-Reported Posttraumatic Problems

Posttraumatic Problem	Causes	Effects	Current Treatment	Treatment Recommendations
(Caregiver & Child Report)	(n = frequencies, MHP Report)	(n = frequencies, MHP Report)	(n = frequencies, MHP Report)	(n = frequencies, MHP Report)
Easily Angered ( <i>Mour Mao</i> )	Parent Discipline (9)	Physical Aggression (8)	Talk Therapy (7)	Family Therapy (9)
	Labor Demands (6)	School Success (7)	Relaxation (7)	Coordination of Care (6)
	Poverty (5)	Family Relationships (6)	Psychoeducation (6)	Psychoeducation (5)
	Family Violence (5)	Communication (4)	Family Therapy (3)	Relaxation (5)
	Dissatisfaction (5)	Peer Relationships (4)	Play Therapy (3)	Consult Spiritual Leaders (2)
	Trauma (4)	Alcohol/Drug Use (4)	Rapport/Empathy/ Proximity (3)	Art Therapy (2)
	Can't Solve Problems/Can't Think Properly (3)	Withdrawal (3)	Art Therapy (2)	
	Peer Conflict (3)	Loss of Societal Resource (3)	Behavioral Therapy (2)	
	Innate Disability (2)	Teacher Relationships (3)	Coping Strategies/Thought Shifting (2)	
		Criminality (3)		
		Increase Family Violence (2)		
		Suicide/Self-Harm (2)		

Crying ( <i>Yom</i> )	Physical Illness (6)	Physical Health (8)	Rapport/Proximity/Allow for Emotional Expression (9)	Rapport/Proximity/Allow for Emotional Expression (5)
Trauma (5)	Family Relationships (7)	Family Relationships (7)	Talk Therapy (6)	Psychoeducation (4)
For Attention (4)	Releases Tension/Chest Tightness (6)	Releases Tension/Chest Tightness (6)	Family Therapy (4)	Talk Therapy (3)
Expression of Inner State (4)	Peer Relationships (6)	Peer Relationships (6)	Art Therapy (3)	Family Therapy (3)
Trauma Flashbacks (3)	Increases Risk for Family Violence (4)	Increases Risk for Family Violence (4)	Psychoeducation (3)	Art Therapy (2)
Fearfulness (3)	Communication (2)	Communication (2)	Encourage Exercise (2)	Coordination of Care (2)
Dissatisfaction (2)	School Success (2)	School Success (2)		
Anger (2)	Child Gets What They Want/ Reinforcement (2)	Child Gets What They Want/ Reinforcement (2)		
Sadness (2)				
Parent Discipline (2)				
Fearfulness ( <i>Phay Klach</i> )	Trauma (11)	Family Relationships (11)	Relaxation (8)	Coordination of Care (6)
Family Violence (10)	Physical Health (8)	Physical Health (8)	Talk Therapy (7)	Exposure/Desensitization Therapy (6)
Community Violence (8)	School Success (6)	School Success (6)	Exposure/Desensitization Therapy (6)	Family Therapy (3)
Ghosts/Spirits (4)	Withdrawal (6)	Withdrawal (6)	Rapport/Proximity/Allow for	More Formal Assessments (3)

Parent Discipline (4)	Peer Relationships (6)	Emotional Expression (3)	Psychoeducation (2)
Sexual Abuse (2)	Low Self-Worth/Low Confidence (5)	Family Therapy (2)	
	Loss of Societal Resource (4)	Medication/Medical Treatment (2)	
	Increased Risk for Later Psychopathology (4)	Coping Strategies (2)	
	Poor Sleep (2)	Group Therapy (2)	
	Communication (2)		
	Nightmares (2)		
<hr/>			
Headache ( <i>Chheur (Kbal) Kopal</i> )	Thinking Too Much (7)	Medication/Medical Treatment (8)	Coordinate Care Across Ecology (7)
	School Success (12)	Relaxation Techniques (7)	Family Therapy (5)
Poor Nutrition (6)	Family Relationships (6)	Traditional Remedies (4)	Find Etiological Causes (4)
School Difficulties (5)	Physical Aggression (4)	Exercise (3)	Art Therapy (3)
Trauma (5)	Low Self-Worth/Low Confidence (4)	Art Therapy (3)	Exercise (2)
Physical Illness (4)	Communication (3)	Talk Therapy (2)	Nutrition Education (2)
General Stress (4)	Physical Health (3)		

Parent Discipline (3)	Withdrawal (2)	Psychoeducation (2)
Expression of Inner State (3)	Poor Sleep (2)	Play Therapy (2)
General Mental Problem (3)	Criminality (2)	Case Management (2)
Family Violence (3)	Won't Eat (2)	Coordinate Care with Medical Providers (2)
Anger (3)	Financial Problems in Family (2)	
Labor Demands (2)		
Peer Conflict (2)		
<hr/>		
Rapid Heart Rate ( <i>Beh-Dong Doeu Nyaob</i> )	Physical Health (9)	Relaxation Strategies (10)
Trauma (6)	Physical Health (9)	Coordinate Care with Medical Providers (7)
Fearfulness (6)	Peer Relationships (5)	Talk Therapy (5)
Physical Illness (5)	School Success (4)	Relaxation Strategies (4)
Trauma Flashbacks (3)	Fearfulness (4)	Assesments (3)
Sadness/Depression (2)	Communication (4)	Family Therapy (2)
Thinking Too Much (2)	Family Relationships (4)	Psychoeducation (2)
Anger (2)	Thinking Too Much (3)	Family Therapy (2)
I Don't Know (2)	Withdrawal (3)	

Medical Treatment (3)  
 Financial Problems for Family (3)  
 Loss of Societal Resource (2)  
 Low Self-Worth/Low Confidence (2)

School Difficulties in Learning/Comprehension (e.g., <i>Rien Men Ches</i> )	Problems with Teacher (7)	Family Relationships and Stress (7)	Coordination of Care with Teachers (6)	Coordination of Care with Teachers (9)
Trauma (7)	Impairs Career Prospects (6)	Case Management/Link Family to Resources (4)	Family Therapy (7)	
Family Violence (5)	Discrimination (6)	Psychoeducation on the Importance of School (4)	More School Counselors (2)	
Parent Discipline Regarding Schooling (5)	Physical Aggression (5)	Talk Therapy (3)	More Formal Learning Assessments (2)	
Learning Disability (4)	Financial Problems for Family (4)	I Don't Know (3)	Skills/Vocational Training (2)	
Memory Functioning Impacted by Trauma (2)	Peer Relationships (4)	Family Therapy (3)		
Thinking Too Much (2)	Intergenerational Effects on Schooling Perspectives (3)	Learning Assessments (2)		
Poor Nutrition (2)	Alcohol/Drug Use (3)	Skills/Vocational Training (2)		
Trauma Flashbacks (2)	Loss of Societal Resource (2)			

Peer Conflict (2)  
Low Self-Worth/Low Confidence (2)

Poverty (2)

Poor Sleep  
(*Dek Men Sov Lok*)

Thinking Too Much (8)

Relaxation (11)

Relaxation (9)

Trauma Flashbacks (6)

Physical Health (11)

Talk Therapy (5)

Poor Nutrition (4)

Easily Angered (8)

Nutrition Education (5)

Coordination of Care (3)

Physical Illness (4)

Family Relationships (7)

Sleep Hygiene (5)

Psychoeducation (3)

Screen Time/TV (4)

Peer Relationships (5)

Medication/Medical Treatment (4)

I Don't Know (3)

Trauma (3)

Exhaustion (3)

Psychoeducation (4)

Sleep Hygiene (3)

Family Violence (3)

Physical Aggression (2)

Find Etiological Causes (2)

Family Therapy (2)

Labor Demands (2)

Loss of Societal Resource (2)

Sadness/Depression (2)

Headache (2)

Nightmares (2)

Figure 1.

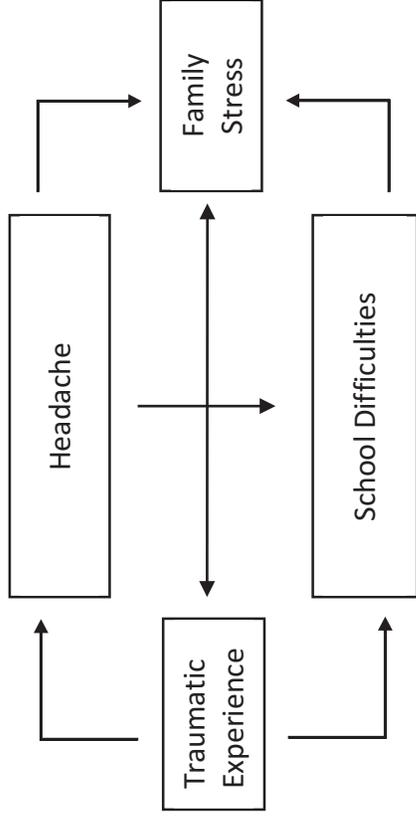


Figure 2.

