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Long-term psychiatric consequences of exposure to trauma in Cambodia: A regional household survey

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ABSTRACT

The long-term psychiatric consequences of exposure to war and/or mass conflict continue to be of great concern and particularly in Cambodia. The current cross-sectional study examined the relationship between history of trauma and current psychiatric and functional morbidity in 3200 randomly selected adults aged 18–60 in Cambodia. Structured interviews were conducted from November 2011 until May 2012 in two predominantly rural regions purposively selected for differing duration of exposure to the Khmer Rouge occupation. Information was also collected regarding ongoing daily stressors and intimate partner violence. Despite high prevalence rates of conflict/war-related trauma, current rates of psychiatric disorders (depression, post-traumatic stress disorder) were relatively low, suggesting that the effects of trauma and extreme hardship in civilian populations may be modified by contextual factors and/or the passage of time. Poor to fair physical health was, however, reported by nearly 60% of the sample. Daily stressors were more important for current morbidity levels than history of trauma, especially in the region with shorter Khmer Rouge occupation. The results suggest that a focus exclusively on past trauma may overlook the contribution of adverse daily life circumstances towards current levels of well-being in civilian populations affected by war and/or mass conflict.

1. Introduction

The long-term psychiatric consequences of war and conflict on civilian populations continue to be an issue of great concern (Murthy and Lakshminarayana, 2006), and particularly in Cambodia. Cambodia is still emerging from the hardships incurred during the Khmer Rouge era (1975–1979), when an estimated 2 million persons perished. Although 35 years have elapsed since the fall of the Khmer Rouge regime, reactions to trauma are complex and may have broad reaching implications (Kroll, 2003). Persistent levels of trauma-related poor mental health and functional impairment in Cambodia could represent considerable obstacles for economic growth and developmental sustainability.

Studies concerning the impact of trauma in Cambodia have found varying rates of post-traumatic stress disorder (PTSD) (Dubois et al., 2004; Sonis et al., 2009; Mollica et al., 2014), with higher impairment levels especially among older persons. Nevertheless, response to war and conflict-related trauma need not necessarily involve PTSD. Moreover, trauma responses may abate or evolve over time, with other types of symptoms taking greater precedence (Kroll, 2003). Further, a focus on conflict-related trauma may not capture all sources of psychological distress in post-conflict settings, and trauma occurring in civilian life may also be relevant. More importantly, a growing body of research suggests that daily stressors such as lack of food, socio-economic insecurity, and intimate partner violence (IPV) may account for a sizeable proportion of the psychiatric morbidity found in conflict/war-exposed populations (Miller and Rasmussen, 2010). Daily stressors have been found to be particularly salient for psychological distress in post-disaster and post-conflict settings such as Sri Lanka and Chad (Fernando et al., 2010; Rasmussen et al., 2010). A study in Afghanistan found that high levels of daily stressors attenuated the relationship between war-related

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violence and depression/PTSD (Miller et al., 2008). Exposure to IPV is a particularly severe stressor, associated with a range of mental disorders (Campbell, 2002). IPV may even increase in post-conflict settings, as shown in Gaza and Lebanon (Clark et al., 2010; Usta et al., 2008). An approach focusing exclusively on past trauma (war or conflict-related) would thus underestimate the importance of other, ongoing sources of psychological distress that are potentially modifiable through targeted interventions. Increased knowledge concerning the multiplicity of factors contributing to poor mental health in conflict-exposed populations could lead to better treatment strategies. In resource-poor settings it may be crucial to prioritize community prevention rather than clinical treatment of symptoms that may abate with time (Miller and Rasmussen, 2010). Such an approach might be useful in Cambodia, where the consequences of trauma incurred during the Khmer Rouge period may be increasingly less relevant, especially in younger generations.

Nevertheless, the Khmer Rouge occupation was especially prolonged in some regions, particularly in the northwest. Efforts to improve community mental health may thus need to be informed by regionally specific evidence-based knowledge. Moreover, although poverty levels continue to decline in Cambodia, economic growth has been less rapid in rural areas, with large urban-rural differences (Hill and Menon, 2013; Engwall et al., 2007). Apart from trauma, daily stressors such as financial worry and concerns about family welfare might also contribute substantially to poor mental health especially in rural areas where poverty is prevalent. The aim of the study was to examine the relative importance of past trauma (both conflict- and non-conflict-related) and current daily adversities for psychiatric status and functional ability in predominantly rural areas in two regions in Cambodia, i.e. the northwest and the southeast. These regions had considerable differences in the length of the duration of the Khmer Rouge occupation, and consequently, the impact of especially war or conflict-related trauma might well correspondingly differ. We hypothesized that morbidity and impairment would be greater in the northwestern vs. the southeastern regions, due to longer duration of the Khmer Rouge occupation and shorter recovery time in the northwest, and that the relative contribution of past trauma (war or conflict-related events) versus current daily adversities for morbidity levels in these two regions would also differ accordingly.

2. Methods

2.1. Setting

Cambodia, population 13.4 million persons (Cambodian Inter-Censal Population Survey, 2008), is divided into 24 provinces that are further sub-divided into districts. The study took place in two regions purposively selected for differing durations of occupation by the Khmer Rouge: the northwest (NW) region, i.e. Battambang and Banteay Meanchey provinces (population 1,702,696) situated along the Thai border, and the southeast (SE) region; i.e. Prey Veng and Svay Rieng provinces (population 1,430,142) situated along the Vietnamese border. The SE provinces were among the first to be liberated by the invading Vietnamese military forces in 1979 and thus had a longer period within which recovery could take place, while the NW provinces were under Khmer Rouge control until 1998. Both regions are predominantly rural, with subsistence farming as the main occupation. In these four provinces, 28.1–32.2% of households are below poverty line, as compared to the national average of 34.9% (Engwall et al., 2007).

2.2. Participants and sample design

A sample size of 3200 was predetermined in order to enable 80% power to detect 20% between-group differences, with a precision of ±5% (95% confidence intervals) to allow for potential stratification by up to 4 variables. Individuals were eligible for inclusion if they were permanent residents of Cambodia aged 18–60 years, i.e. men and women of working age and thus conceivably economically productive. The study intentionally targets rural areas where financial worry and family welfare might be common concerns, in order to examine the relative importance of past trauma vs. current stressors. We purposely selected two-three rural districts per province, such that districts chosen would yield potentially adequate concentrations of poor households, based on census data and information from the provincial governor. A district is an administrative unit with well-defined boundaries and is further sub-divided into communes. Within districts, a multi-stage random probability design was then used to recruit participants. Thus, within each of ten districts, 2–5 communes were randomly selected out of all possible communes in that district, depending on district size. Next, within each commune, 4 villages (circa) were randomly selected for household sampling. Within each village a random direction from the village center was determined, after which every third household in that direction was approached, i.e. a "random walk" procedure. At each household a list was made of all eligible persons aged 18–60, from which a potential participant was randomly selected. One person per household was interviewed. If the person was unable to be interviewed at that time, follow-up visits were conducted. Persons who were intoxicated or displayed overt signs of cognitive deficit due to mental or severe physical illness were excluded. Sampling was conducted at different times of the day. In any given village solely men or solely women were sampled to ensure confidentiality and to enhance security, e.g. to reduce the risk that victims of partner abuse might be further abused. Sampling in the provinces continued until the estimated predetermined sample size of 3200 persons was reached, proportionate to the populations in the respective provinces.

2.3. Interview procedure

A standardized structured interview was developed for the purpose of the study. Interviews were conducted from November 28, 2011 to May 4, 2012 by 8 trained psychiatric residents from the University of Health Sciences, Phnom Penh. Interviewers were gender-matched to the participants. Interviews were conducted orally in Khmer, with no one else in the household present. Each interview lasted 30–40 min. A supervisor in the field conducted quality control procedures, by monitoring team members and checking completed interviews.

2.4. Ethical permission

The study was approved by the Swedish Regional Board of Ethics, Lund University, Sweden and by the Cambodian National Ethical Committee for Health Research, Phnom Penh. Informed consent from all participants was obtained orally, due to high rates of illiteracy.

2.5. Measures assessed in the interview protocol

The current study utilizes information concerning the following areas: socio-demographic background, trauma exposure, psychiatric symptoms, self-rated health, daily life functioning, daily life stressors, and experience of intimate partner violence.