A Randomized Controlled Trial of Trauma-Focused Cognitive Behavioral Therapy for Sexually Exploited, War-Affected Congolese Girls

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Objective: To assess the efficacy of trauma-focused cognitive behavioral therapy (TF-CBT) delivered by nonclinical facilitators in reducing posttraumatic stress, depression, and anxiety and conduct problems and increasing prosocial behavior in a group of war-affected, sexually exploited girls in a single-blind, parallel-design, randomized,+ controlled trial. **Method:** Fifty-two 12- to 17-year-old, war-affected girls exposed to rape and inappropriate sexual touch in the Democratic Republic of Congo were screened for trauma, depression and anxiety, conduct problems, and prosocial behavior. They were then randomized to a 15 session, group-based, culturally modified TF-CBT (n = 24) group or a wait-list control group (n = 28). Primary analysis, by intention-to-treat, involving all randomly assigned participants occurred at pre- and postintervention and at 3-month follow-up (intervention group only). **Results:** Compared to the wait list control, the TF-CBT group experienced significantly greater reductions in trauma symptoms ($F_{1,49} = 52.708, p < 0 \cdot 001, \chi^2_p = 0.518$). In addition, the TF-CBT group showed a highly significant improvement in symptoms of depression and anxiety, conduct problems, and prosocial behavior. At 3-months follow-up the effect size (Cohen's d) for the TF-CBT group was 2.04 (trauma symptoms), 2.45 (depression and anxiety), 0.95 (conduct problems), and −1.57 (prosocial behavior). **Conclusions:** A group-based, culturally modified, TF-CBT intervention delivered by nonclinically trained Congolese facilitators resulted in a large, statistically significant reduction in posttraumatic stress symptoms and psychosocial difficulties among war-affected girls exposed to rape or sexual violence. Clinical trial registration information—An RCT of TF-CBT with sexually-exploited, war-affected girls in the DRC; http://clinicaltrials.gov/; NCT01483261. J. Am. Acad. Child Adolesc. Psychiatry; 2013;52(4):359-369. **Key Words:** randomized controlled trial, posttraumatic stress, depression and anxiety, sexual exploitation, war and conflict

Little research has been conducted on the nature and extent of gender-based violence and sexual exploitation in situations of war, conflict, or natural disasters,[1] and no systemic review has been published to date in this field. Although the issue of sexual violence during armed conflict has received more attention recently,[2] this focus is primarily on violence against women, leaving the issue of sexual violence and exploitation of young people at the margins of research, documentation, and intervention strategies.[3]

This article is discussed in an editorial by Dr. Judith A. Cohen on page 344.

Clinical guidance is available at the end of this article.

Worldwide, it is estimated that at least one in every three females is either physically or sexually abused at least once in her lifetime.[4] Large population-based surveys of sexual assault indicate a lifetime prevalence of 13% to 39% for women,[5] and the annual female rape rate in the US is estimated to be 0.5 per 1,000.[6]

The figure for the Democratic Republic of Congo (DR Congo), the scene of the world's deadliest conflict since World War II, is considerably higher. A study, which controversially used population estimates to extrapolate incidents of rape, claimed as many as 1.8 million Congolese women may have been raped with up

to 433,785 rapes in the 12-month period from 2006 to 2007.[7] In eastern DR Congo, the annual rape rate is estimated at 67 per 1,000.[7] This is the highest rate of gender-based violence in the world and means that, in certain parts of war-affected DR Congo, women and girls are 134 times more likely to be raped than their US counterparts.

The consequences of war and sexual violence for girls include physical injuries[8] (e.g., vaginal and rectal fistulas), sexually transmitted infections and pregnancy,[1,8] psychological distress[9] (e.g., posttraumatic stress, depression, anxiety, conduct problems), stigmatization or rejection by family,[1,10,11] disruption of education and/or vocational training,[8,12] and poverty.[8,12] Despite evidence that exposure to violence, particularly sexual violence, is a risk factor for adverse child development outcomes[13] and despite repeated calls for research into mental health interventions for war-affected young people,[1,3,9] the field is hampered by a lack of rigorously evaluated interventions for child victims of sexual violence and exploitation in war-affected countries.

Randomized controlled trials (RCTs) of trauma interventions have primarily focused on Western populations. These studies have found that trauma-focused cognitive behavior therapy (TF-CBT) was superior to child-centered therapy (CCT) in treating posttraumatic stress and emotional and behavioral problems in sexually abused 8- to 14-year-olds[14] and was superior to a waiting-list control group in reducing posttraumatic stress caused by multiple traumas in 3- to 6-year-olds.[15]

The few RCTs carried out with war-affected children and adolescents among non-Western populations have focused on child soldiers in Uganda,[11] genocide survivors in Rwanda,[16] and internally displaced adolescents in northern Uganda.[17] However, the authors are not aware of any intervention specifically designed for adolescent victims of sexual violence and exploitation and so this study is a timely and important intervention for a largely underrepresented and overlooked population.

The primary research question is whether a culturally modified TF-CBT intervention delivered by nonclinical facilitators would lead to a reduction in posttraumatic stress symptoms among war-affected survivors of sexual violence and exploitation in the Democratic Republic of Congo. A lack of qualified mental health workers in this resource-poor area meant that nonclinicians had to facilitate this intervention. The secondary research questions examined the effects of the intervention on symptoms of depression and anxiety, conduct problems, and prosocial behavior. The authors anticipated that the TF-CBT intervention group would be superior to the wait-list control group on all four outcomes.

METHOD

Trial Design

A single-center, equal-randomization, single-blind (outcome assessors), parallel-group (active and wait-list control) study was chosen to address this question.

An additional resilience questionnaire was piloted, translated, and back-translated for the study, but was eventually discarded after feedback from the interviewers/outcome assessors suggested that the clinical interview was long enough and that asking more questions could lead to fatigue and inaccurate responses.

Participants

Fifty-two war-affected girls aged 12 to 17 years who had either witnessed or had personal experience of rape or sexual abuse (described in the questionnaire as inappropriate sexual touch) took part in the study. This sample was drawn from a group of 60 girls comprising minors rescued from brothels by a local nongovernmental organization (NGO; Conférence Régionale de l'Afrique de l'Ouest Francophone [CERAO]), victims of military and militia sexual violence, and relatives of CERAO workers. At the time, all 60 girls attended vocational training classes in tailoring and mechanics sponsored by the NGO World Vision. To determine who had witnessed or experienced rape or sexual violence, these questions were added to the traumatic life events questionnaire that all 60 girls completed during the screening process.

Because of the stigma and embarrassment associated with having been raped or sexually abused, the researchers were advised to use the more general and less intrusive criteria of either having witnessed or having personally experienced rape or inappropriate sexual touch as the eligibility criteria. Intellectual disability, psychosis, or severe emotional and behavioral problems (e.g., physical violence towards staff) that prevented group participation were the exclusion criteria. At initial screening, no one met exclusion criterion. The intervention took place in Beni, a small town in North Kivu, with an estimated population of 100,000. An investigatory report on child protection risks carried out by World Vision before the intervention found that the problem of under-age prostitution was particularly acute in Beni, with World Vision estimating that approximately 200 brothels may have been in operation in the town at the start of the study. Rape and inappropriate sexual touch occurred in these bar-cum-brothels where children as young as 11 years