TITLE: Start as you mean to carry on: the emerging evidence base for the treatment of conflict-related mental health difficulties in children and adolescents

Richard Meiser-Stedman & Leila R. Allen Department of Clinical Psychology, University of East Anglia

Correspondence: Richard Meiser-Stedman, Department of Clinical Psychology, Elizabeth Fry

Building, University of East Anglia, Norwich Research Park, Norwich, NR4 7TJ

Email: r.meiser-stedman@uea.ac.uk

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SUMMARY (50 words):

Discusses Morina and colleagues' meta-analysis of psychological therapies for youth with PTSD and depression following conflict. Recent years have seen significantly more randomised controlled trial evidence addressing the needs of this population. More work is needed to understand post-traumatic depression, dissemination, timing of intervention and whether trauma-focused interventions are essential.

COMMENTARY:

Millions of children around the world have been exposed to - or continue to be exposed to - war and armed conflict. These conflicts may involve many types of trauma, including bombardment, displacement, sexual violence and forced conscription. In low and middle income countries (LMICs), PTSD and depression are common responses in children who have lived through such trauma^{1,2}: such a burden of psychiatric morbidity clearly warrants a rigorous and effective response from mental health professionals. But this particular burden also demands that we raise our game considerably – can we intervene effectively in a way that recognises the lack of resources typically faced by LMICs?

Morina and colleagues have undertaken an important update of a five-year old meta-analysis (TOL) summarising the evidence for interventions for children and adolescents affected by armed conflict in LMICs. What initially is striking is the increase in evidence in such a short period: To go from four randomised controlled trials (RCTs) in 2011 to 21 in 2016 is a very encouraging sign of how the need for effective treatment in such contexts is being addressed by several research groups. Given the particular struggles associated with getting such studies completed, these groups deserve considerable praise.

Moreover, the RCTs included in this meta-analysis were, in the majority of cases, considered to have a low risk of bias. We are equipped therefore not only with more trial evidence, but more *good* trial evidence. The authors draw attention to likely publication bias, raising the possibility that file-drawer effects may be skewing our understanding of what treatment effects are possible. We need to know about those trials showing no evidence of harm but also no evidence of efficacy – we could be wasting precious resources, both in terms of research efforts and treatment delivery. To this end, future meta-analyses should consider a trawl through the trial registries for unpublished studies.

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What of the results themselves? While most studies utilised a waiting list control arm, the reviewed interventions were definitely better than nothing at post-treatment. "Better than nothing" may not sound very promising, but it's worth recalling that some interventions for PTSD (focusing on prevention) have been harmful.³ This positive finding suggests that the field has established itself on a solid foundation, and provides some guidance for those to adopt evidence-based practice. Treatment gains appeared to be stable over time, though, as the authors rightfully point out, controlling for publication bias decreased the observed effect size.

The other less-good news concerned depression, and the weaker effects for this outcome. This clearly needs to be addressed in future trials, but this finding is also a reminder that there is much still to be done even before considering optimal treatment approaches. That PTSD is not the only possible mental health consequence of trauma has been recognised for some time, but the prevalence and aetiology of "post-traumatic depression" is not well understood. Since depression can have occurred pre-trauma, it is unclear how much trauma-focused intervention can address this condition. Many intervention approaches adopt a PTSD-first approach, and in developed countries this has been shown to be sensible, with improvements in PTSD leading to improvements in depression.⁴ However, this may be true for LMIC youth exposed to conflict, where material deprivation may be more significant (e.g. difficulties in accessing education). It is not known how depression and PTSD lead to poor functioning and well-being, e.g. whether one form of psychopathology accounts for greater difficulties than the other, and whether their effects are additive or interact. Studies evaluating how these frequently comorbid conditions impact on functioning and quality of life may be difficult to undertake, but could clarify what needs addressing post-conflict.

What to make of the very pronounced heterogeneity that accompanied all of these findings? Morina and colleagues steer away from unpacking these findings using moderator analyses, given the small number of trials they had to work with. However, some speculation on these findings is probably appropriate here. The obvious studies to focus on initially are the two outliers^{5,6}, with between groups effect sizes (relative to waiting list) greater than 1.9. Each study involved adapting a trauma-focused

cognitive-behavioural therapy package (TF-CBT), well established and supported in developed countries⁷, for youth in the Democratic Republic of Congo. These studies (conducted by the same group) were doubly innovative, involving reworking for both context and therapy delivery; in particular the majority of the intervention sessions were delivered in a group format and only six sessions, rather than the more resource-intensive individual format of standard TF-CBT. Clinically the authors may have hit a "sweet spot", with the right balance of normalisation and skills work in the group sessions, cultural relevance and sufficient individual sessions for adequate processing of trauma memories.

A further basic point concerns the overall pattern of results, with effect sizes no worse than another recent meta-analysis addressing all psychological treatment studies (predominantly US, European or Australian) for PTSD in youth⁸. Indeed, the effects for TF-CBT in LMIC youth were if anything, greater. It would be difficult to argue that the experiences of conflict-affected youth in LMICs are somehow milder. Hopefully this finding speaks to the universality of the traumatic stress response in youth and – mercifully – its responsiveness to treatment.

An important feature of this meta-analysis that deserves comment is the inclusion of trials that have utilised the child version of the Narrative Exposure Therapy (NET) treatment protocol (grouped with TF-CBT studies in Morina and colleagues' meta-analysis). NET was designed to be easily delivered in conflict zones by local personnel for adults and youth with PTSD stemming from multiple traumatic experiences. As its name suggests, NET relies heavily on cognitive-behavioural principles but is also intended to support advocacy and the process of giving testimony. In the context of a number of WL-controlled trials, NET is a victim of its own rigour; RCTs addressing NET have typically used *active* control arms (e.g. meditation/relaxation and interpersonal therapy), and mostly find no evidence for a superior effect for NET. As an intervention, NET ticks many of the boxes for what is required for youth in LMICs with PTSD, but the trials addressing this treatment also raise the possibility that other *non*-trauma-focused approaches may be as efficacious as trauma-focused ones. I would caution against drawing firm conclusions about this on the basis of the data we currently enjoy;

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the trials that to date have compared two active treatments in LMICs have typically been underpowered. Nevertheless, the prospect of having a much wider range of treatments to utilise with conflict-affected youth is something that future trials will surely consider.

In concluding, I would draw the reader's attention again to just how young this field is: the oldest study amongst the RCTs included in Morina and colleagues' review was only published 12 years ago. There is much still to address. Uncertainties around the types of interventions that are efficacious, how easily interventions can be disseminated and the timing of interventions (some interventions have been targeted at managing psychological distress *during* a conflict, while others focus on post-conflict settings) need to be considered more closely. If the field can to continue to build on the firm foundation offered by well-conducted RCTs, the urgently needed answers to such questions may not be far off.

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