Systematic Review and Meta-Analysis of psychological interventions for comorbid PTSD and Substance Use Disorder

Neil Roberts, Annett Lotzin, Ingo Schäfer

Introduction

PTSD and substance use disorder (SUD) frequently co-occur, and PTSD-SUD comorbidity presents many clinical challenges for treating clinicians. Individuals with PTSD-SUD present with a more severe clinical profile than either disorder alone, tend to have poorer functioning and wellbeing, and poorer treatment outcomes. Clinicians view this comorbidity to be substantially more difficult to treat than the two disorders in the absence of comorbidity. The aim of this review was to update and extend a previous review (Roberts et al, 2016, Cochrane Library) of all available studies aiming to treat comorbid PTSD-SUD through psychological intervention. The review was also undertaken as a part of a process to develop expert treatment recommendations for the European Society for Traumatic Stress Studies (ESTSS).

Method

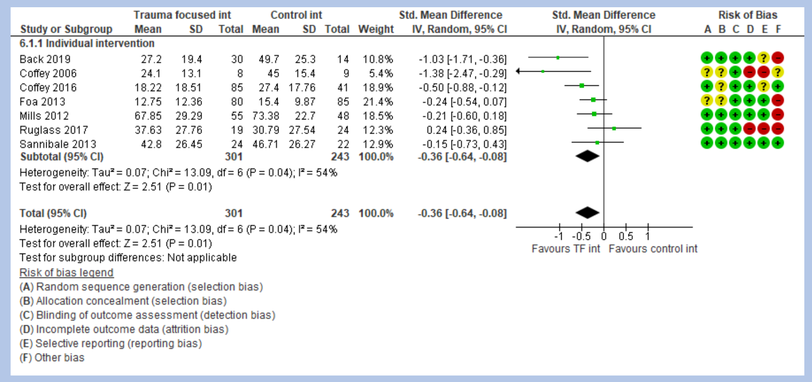
The review followed procedures for systematic reviews, including risk of bias evaluation, established by the Cochrane Collaboration.

Inclusion: RCTs of defined psychological intervention aimed at treating PTSD-SUD, including adults or children and young people meeting diagnosis for PTSD and SUD, and using PTSD and/ or SUD related outcomes. Studies primarily aimed at evaluating PTSD and nicotine dependence were excluded.

Search: MEDLINE, PsycINFO, EMBASE, Cochrane CENTRAL, PTSDPubs, PTSD-Repository (https://ptsd-va.data.socrata.com/), ClinicalTrials.gov and the WHO International Clinical Trials Registry Platform.

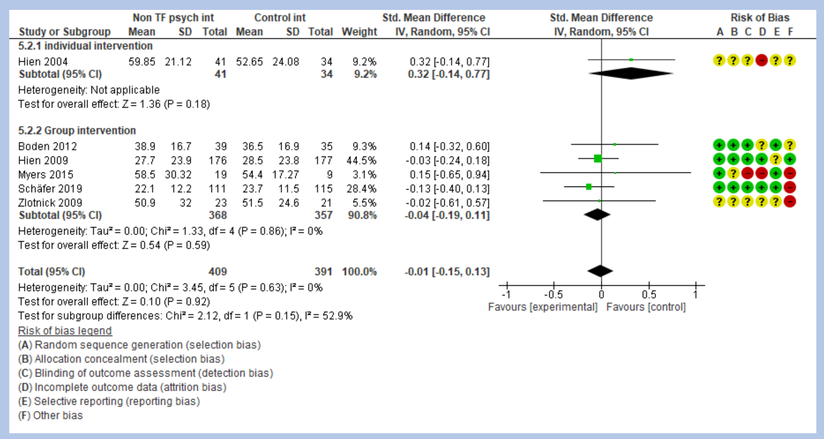
Outcomes: The primary outcomes were PTSD symptoms severity, drug and alcohol use post-treatment. Secondary outcome included treatment drop-out and adverse events. Additional outcome points were 3-5, 6-13 and 13+ months post treatment.

Forest Plot of PTSD severity, post treatment for studies of trauma focused CBT plus treatment for SUD vs treatment for SUD only



Data synthesis: Data were analysed in RevMan 5.3.
We separated interventions into three main groups: present focused treatments (e.g., Seeking Safety), trauma focused treatments (e.g., COPE), integrated cognitive restructuring-based interventions (without imaginal and in vivo exposure) (e.g., ICBT). Most studies evaluated these interventions alongside treatment for SUD against treatment for SUD only. We investigated head to head comparisons of active treatments (e.g., Seeking Safety vs COPE) separately.
Quality of findings were evaluated using GRADE.

Forest Plot of PTSD severity, post treatment for studies of present focused approaches (all studies evaluating Seeking Safety) plus treatment for SUD vs treatment for SUD only



Main Findings

- We screened 2219 new citations and identified a total of 27 studies.
- We found a relatively high level of drop-out across studies.
- There was mostly no evidence of any differential outcomes for alcohol or drug use across studies and comparisons.
- In our main comparisons we found no benefits for present focused treatment approaches, such as Seeking Safety, aimed at improving coping skills beyond those for SUD only interventions for PTSD.
- We found modest benefits for trauma focused intervention plus SUD intervention post-treatment for PTSD (SMD= -0.36 CI-0.64, -0.08), and at 6-13 months for PTSD (SMD = -0.48 CI-0.81, -0.15) and alcohol use (SMD= -0.23 CI -0.44, -0.02).
- There were no benefits for cognitive restructuring interventions as a group, but we found a modest effect for integrated cognitive behavioural therapy (ICBT) for PTSD post-treatment (SMD= -0.33 CI -0.62, -0.04).
- There was evidence of some benefit for trauma focused intervention over present focused intervention for PTSD from a single study and for reduction in drop-out for incentivised attendance for trauma focused intervention from another single study.
- Most findings were of very low quality.

Conclusion

We concluded that for adults there is evidence that trauma focused therapy and ICBT can improve PTSD for some individuals, when delivered alongside treatment for SUD, but many patients do not fully engage with treatment and average treatment effects are modest. There was significant clinical and statistical heterogeneity in the included studies.

Clinicians should exercise caution when considering whether to provide the interventions identified in this review as it is unlikely that these interventions will be appropriate for everyone and individual treatment planning will need to be guided by an individual formulation, which takes account of the predictors of outcome, alongside patient related priorities, risk factors and preferences

RobertsNP1@Cardiff.ac.uk

Accepted for publication European Journal of Psychotraumatology doi.org/10.1080/20008198.2022.2041831