

Predictors of treatment and outcomes in trauma-informed residential substance use treatment setting

Walter, Z. C.^{1,2,3*}, Carlyle, M.^{1,2,3}, Mefodeva, V.^{1,2,3}, Glasgow, S.^{1,2}, Newland, G.^{1,2}, Nixon, R. D. V.^{4,5}, Cobham, V. E.^{1,6}, & Hides, L.^{1,2,3}

¹School of Psychology, Faculty of Health and Behavioural Sciences, University of Queensland, Brisbane, QLD, Australia

²National Centre for Youth Substance Use Research, Faculty of Health and Behavioural Sciences, University of Queensland, Brisbane, QLD, Australia

³Lives Lived Well, Brisbane, QLD, Australia

⁴Flinders University Institute for Mental Health and Wellbeing, Flinders University, Adelaide, SA, Australia

⁵College of Education, Psychology and Social Work, Flinders University, Adelaide, SA, Australia

⁶Children's Health Queensland, Child and Youth Mental Health Service, Brisbane, QLD, Australia

Presenter's email: z.walter@uq.edu.au

Introduction: Histories of trauma and PTSD are common among individuals with substance use disorder (SUD) and are associated with poorer treatment retention and outcomes. Although trauma-informed care (TIC) approaches are recommended for SUD treatment, research on TIC in residential SUD treatment is limited, particularly in understanding how client-level factors impact treatment outcomes. This study aimed to examine moderators of treatment outcomes and completion in trauma-informed residential substance use treatment.

Methods: We conducted a secondary analysis of a single-arm, phase 1 trial of a novel TIC model of care in a residential treatment setting. Participants were 148 clients (55% male, $M_{\text{Age}}=27.30$, $SD_{\text{Age}}=4.76$). Client substance use (global substance use and involvement with alcohol, methamphetamine, and cannabis) and mental health outcomes (depression, anxiety, and PTSD symptoms) were measured at service entry, and at 3, 6, and 12 months post-entry. Treatment drop-out was measured as premature discharge prior to completion of the 6-week program.

Results: In total, 48% of clients completed the full 6-week treatment program. Mixed effect models showed significant reductions in substance involvement, particularly for substance use at 3-months ($d = .67$). Improvements in depression, anxiety, and PTSD were also found ($ps < .01$). Demographic variables did not significantly predict outcomes. However, baseline depression levels predicted substance use severity at 6 and 12 months, with higher comorbidity associated with higher substance use rates at these time points. Comorbid depression and anxiety also predicted treatment dropout, whereas PTSD symptoms did not.

Conclusion: Overall, the TIC model was associated with improved mental and substance use outcomes. Identifying client-level predictors of treatment outcomes and treatment completion is essential to optimising treatment, particularly in residential settings. These findings underscore the importance of addressing comorbid mental health conditions, especially depression, to improve substance use outcomes in residential SUD treatment.

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