Playing the ACE: Does the SAVRY inflate risk in adolescents with developmental disorders exposed to childhood trauma?

[1]Elanor L Webb, Senior Research Assistant Psychologist, CDCT, St. Andrew's Healthcare, Northampton, UK.
[2]Abbey Hamer, Assistant Psychologist, Medium Secure Division, St. Andrew's Healthcare, Northampton, UK.
[3]Jessica Davies, Assistant Psychologist, Low Secure Division, St. Andrew's Healthcare, Birmingham, UK.

ABSTRACT

BACKGROUND. Adverse childhood experiences (ACEs) are highly prevalent in offenders with developmental disorders (DDs), and many risk assessment tools include items pertaining to ACEs. This study explores the associations between ACEs, SAVRY risk scores, and institutional risk in a forensic DD sample. **METHODS.** Secondary analysis of data for 34 adolescents detained to a secure DD service was conducted. **RESULTS.** A positive correlation between ACEs and SAVRY risk scores was found, with elevations specifically on the historical subscale (p<.001). Additionally, those exposed to 4+ ACEs were secluded more frequently (p=.015). No associations with frequency of risk behaviours nor restraints were found. Those with more DD diagnoses experienced fewer ACEs and engaged in fewer self-harming behaviours (p=.04). **CONCLUSION.** Including trauma items on risk tools may impede their accuracy for people with DDs. Directions for future research are discussed, to gain clarity on the role of DDs in the pathways between trauma and risk.

I. INTRODUCTION & AIMS

The Adverse Childhood Experiences (ACEs) framework (Felitti et al., 1998) describes ten events relating to directly experienced maltreatment and witnessed household adversity, and is linked to risk behaviours and offending in neurotypical populations (Van Duin et al., 2021). People with developmental disorders (DDs) are over-represented in secure care settings (Hales et al., 2018), and frequently present with chronic trauma histories (Stinson & Robbins, 2014). Yet, the relationship between early trauma and risk is yet to be explored in this population.

ACEs are included in items on tools that guide clinical judgements pertaining to risk in secure settings. Whilst justified for neurotypical populations, their validity in contributing to an accurate assessment of risk in people with DDs is unknown. This is a prominent omission, given that no structured professional judgement (SPJ) tools developed for violence risk assessment in DD populations exist. Additionally, there is evidence for a range of criminogenic risk factors unique to this population (Segeren et al., 2016). In consideration of these omissions, the current study sought to explore:

- *The relationships between ACEs, risk assessment scores, and frequency of risk behaviours and restrictive practices.*
- *The impact of DD need complexity on ACEs, risk scores, and frequency of risk behaviours and restrictive practices*

II. METHODOLOGY

Secondary analysis of data for adolescents admitted to a secure CAMHS DD service between Feb 2014 - Jan 2020.

34 participants aged 14- 17 years (M = 15.5). Predominately male (76.5%), White British (73.5%), and with a diagnosis of Mild Intellectual Disability (64.7%)

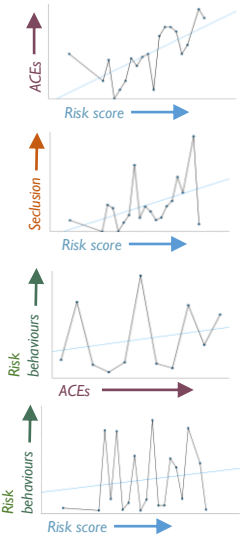
Demographic and clinical profiles, SAVRY scores at admission, and frequency of risk behaviours and restrictive practices were extracted. A file review of ACEs was conducted using the ACEs questionnaire.

Approval was attained from internal clinical governance structures, as part of a wider service evaluation project.

III. FINDINGS

I. ACEs, risk assessment scores, and observed institutional risk

- **Moderate positive correlations** between ACEs and SAVRY risk scores (r_s=.57, p<.001), specifically on the historical subscale (r_s=.75, p<.001).
- **Weak positive association** between total SAVRY risk scores and frequency of seclusions (r_s=.38, p=.03).
- **No significant association** between ACEs and frequency of any risk behaviour (physical or verbal aggression, self-harm, inappropriate sexual behaviours hostage-taking) nor total number of risk behaviours
- **No significant association** between SAVRY risk scores and frequency of any risk behaviour type nor total number of risk behaviours.



Those exposed to 4+ ACEs had significantly higher historical risk scores (U=117.50, p=.004), and were more frequently secluded (U=199.00, p=.015). There were no group differences in frequency of risk behaviours.

II. Impact of developmental disorder need complexity

- **Weak negative association** between no. of DD diagnoses and ACEs (r_s=-.39, p=.02).
- **Weak negative association** between no of DD diagnoses and frequency of self-harm behaviours (r_s=-.39, p=.02).

IV. DISCUSSION

Adolescents with more ACEs had higher risk scores, by virtue of their greater endorsement of 'historical' items, which mirror ACEs. However, no associations between ACEs and institutional risk behaviours were found. Such findings suggest that the SAVRY may inaccurately inflate risk in the presence of early trauma.

Whilst adolescents with more pervasive trauma histories did not engage in more *frequent* risk behaviours, the relationship of BOTH ACEs and risk scores with seclusions suggests they may engage in more *severe* risk behaviours, necessitating seclusion. Alternatively, people with more pervasive trauma histories may be less responsive to de-escalation techniques, resulting in sustained risk.

The inverse relationships found between number of developmental disorder diagnoses, ACEs and self-harm behaviours indicates that the association between early adversity and risk may be complex and not linear, as it appears in neurotypical populations.

Implications and future directions

- Over-reliance on risk assessments may perpetuate the stigmatization faced by people with developmental disorders, and should be used to support, but not determine, clinical judgements.
- Given the absence of any SPJ tools developed specifically for developmental disorder populations, risk formulation may be a particularly important component for risk assessment in people with developmental populations.
- Given that neither historical nor dynamic risk subscales were associated with risk behaviours, further research on the utility of the SAVRY in developmental disorder samples is pivotal.

Limitations

- Data pertaining to risk behaviour *severity* was not available which precludes determining whether ACEs are a marker of risk severity, rather than frequency, in this population.
- Numerical SAVRY risk scores were utilised. However, within practice, summary risk ratings are instead formulated, as a clinical judgement.

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