



TRAUMA & NEURODIVERSE POPULATIONS

Trauma interventions for neurodiverse populations: What does the evidence say?

Dr Gary Byrne



Overview of Presentation

- Trauma vulnerability and neurodiversity
- Prevalence and psychological sequelae of abuse
- Trauma interventions: what the evidence suggests
- Common accommodations made by treatments



Introduction

- The literature is clear: individuals presenting with neurodiversity are significantly more likely to experience adverse life events, abuse, and trauma in both childhood and adulthood compared to the general population (Sullivan & Knutson, 2000; Horner-Johnson & Drum, 2006; Byrne, 2018).

The reasons why include:

- Dependence on others
- Cognitive challenges and associated impaired communicative ability
- The reality of disability itself (Levitas & Gibson, 2001)

Trauma and its many guises

Psychological trauma increasingly defined as two distinct types (although not mutually exclusive)

- Type 1: Single incident trauma
- Type 2: Complex/developmental trauma

- The literature has established a causal link between abusive experiences (especially in childhood) and poor physical and mental health outcomes
- Prevalence rates for trauma and childhood abuse vary in general population but could be one in six (Bellis et al., 2015), likely far higher among individuals with developmental concerns.

Natural recovery may also be impeded due to neurodiversity. Skelly (2020) suggests that compared to individuals in the population, those with neurodiverse presentations may find it more difficult to recover due to limitations in ability to describe experiences, locate and described associated feelings and thoughts and inherent challenges to own agency.

There may be specific traumas that are not included on standard questionnaires relevant to neurodiverse populations (e.g. seclusion and restraint; Katsyannis et al. 2022)

- Diagnostic overshadowing.
- Psychological symptoms are not infallible indicators of abuse and a more holistic focus is needed that may also encompass the broader negative effects on the individual's wider family (O'Callaghan et al., 2003). The research indicates that there is no single diagnostic trajectory when dealing with abuse.
- Insidious nature of emotional abuse



Evidence-based interventions

- The last 15 years has seen an increased number of intervention studies and systematic reviews (Mevisse & De Jongh, 2010; Mevisse et al., 2016).
- To date there are no clinical guidelines regarding the treatment of PTSD in people with intellectual disability due to the lack of methodologically robust research studies.
- The majority of studies fall into one of two camps: Eye Movement Desensitization and Reprocessing (EMDR) and Cognitive Behavioural Therapy

- A quick word on invalidated and unvalidated treatments.
- The possible use of third wave therapies such as ACT and CFT (Willems et al., 2021) as well as body focused therapy but limited evidence to date focusing on trauma.
- Research also suggests evidence based programs are embedded within trauma-informed care, person centred care and support, MDT working, and continual professional development (Truesdale et al., 2019)



Trauma Focused CBT

- A rose by any other name
- Differing protocols and differing focuses on treatment components.
- Most common Cognitive Therapy for PTSD (Ehlers & Clark, 2000) Prolonged exposure for therapy (Foa & Rothbaum, 2001) and Trauma-Focused CBT for children (Cohen et al., 2017)



- Differences in terms of duration, number of sessions, emphasis on treatment components (e.g. TF-CBT uses gradual exposure not prolonged exposure).
- Common factors include psychoeducation, reappraisals of problematic meanings, accessing and changing memories, and a discrimination between trauma and the present (Schnyder et al., 2015)



- Most recent systematic review found 3 CBT studies between 2010-2020 trialed with both children and adults presenting with mild intellectual delay and PTSD symptoms.
- Findings for CBT are equivocal. Two studies (Kroese et al. 2016; Carrigan & Allez, 2017) reported positive findings for adult populations. Kroese article included information regarding accommodations and modifications to treatment. Significant reductions on trauma symptoms (medium effect sizes) and smaller reductions on general well-being.

- Only one TF-CBT study included focused on child population (Holstead & Dalton, 2013).
- Comparing TF-CBT with ABA/ intensive behavioural approach.
- No formal measure of trauma symptoms only Teacher ASEBA.
- Those in the ABA group evidenced greater reductions in externalizing and internalizing symptoms than those in TF-CBT group.



Common methodological issues:

- Small sample sizes
- Lack of standardized assessments
- Lack of controls
- Unclear as to whether accommodations were made to treatment



- Among neurotypical child population, TF-CBT and prolonged exposure are two of the most commonly adapted interventions (Lange et al., 2022).
- In neurotypical populations, the question of who decided what changes is not evident in terms of accommodations to protocols.
- Most common adaptations: adding elements, tweaking and tailoring interventions and contextual changes.
- This suggests that change and accommodation is common but are we measuring apples with apples.

Common adjustments recommended for children with developmental delay may also be appropriate for adults when using CBT approaches such as:

- (a) adjustment to session length and structure, communication, and pacing;
 - (b) use of strategies to reinforce generalization and learning;
 - (c) Modification and increase of caregiver involvement
 - (d) increased attention to motivation.
- (D'Amico et al., 2022; Grosso, 2012)



EMDR

- A comprehensive eight-phase model that emphasizes the role of memory and information processing symptoms in treatment of psychopathology related to traumatic events (Shapiro, 2001).
- Three elements crucial for therapy
 - (a) stabilization and developing sense of self-mastery
 - (b) processing memories and triggers
 - (c) teaching appropriate skills for social interactions(Schnyder et al., 2015)

EMDR as an approach lends itself to working with neurodiverse populations

- working in a largely non-verbal manner
- cognitive and communicative capacities can be catered for by using different bilateral stimulations
- EMDR has shown to be effective using a lower number of treatment sessions
- (Jowett et al., 2016)



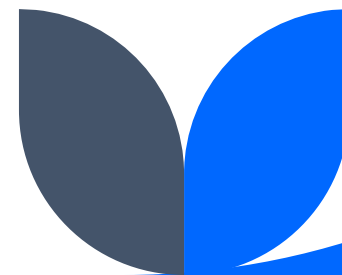
Recent systematic review (Byrne, 2020) included 8 EMDR studies.

Studies included adults and children with intellectual difficulties ranging from mild to severe range. Sessions ranged from 2-17.

Accommodations included use of story telling method (Lilly, 1999) augmented by family member narrative. Stimulation used in the studies included buzzers and tapping body parts

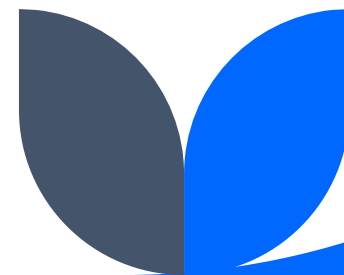


Evidence suggests that EMDR is an acceptable and feasible intervention for adults presenting with intellectual delay presenting with trauma related symptoms. The majority of studies showed decreases on outcome measures or behavioural improvements and reduction in avoidant behaviours.



However Karatzias et al. (2019) RCT, the first using EMDR with this population, found that individuals assigned to EMDR did not display a significant improvement in trauma symptoms over standard care (SC). EMDR demonstrated significant reductions in general anxiety compared to SC.

How to explain this finding?



- Further studies since review have increased sample sizes but do not have controls.
- These findings indicate improvements in trauma symptoms for individuals presenting with borderline to moderate delays (Mevisen et al., 2020; Porter, 2021)
- Ooms-Evers and colleagues (2021) reported significant reductions on in trauma symptoms among cohort of thirty-three 6-17 year olds who experienced multiple ACEs.
- Raises questions about treatment method and intensive treatments like that reported by Ooms-Evers

Outstanding questions

- Neurodiversity and how to improve accessibility, acceptability and effectiveness.
- Autism Spectrum Conditions and using strengths within treatment (visual spatial processing, rote memory, likes)
- Dearth of any type of psychological interventions for individuals presenting with severe intellectual disabilities (Vereenooghe et al., 2018)
- Clinician's own uncertainty and need for further training in the use of interventions with this population (Fisher et al., 2022)

In a nut-shell

Two therapeutic approaches have garnered a growing level of evidence CBT and EMDR.

EMDR has accrued more research and holds inherent advantages over other treatments

CBT research lags in comparison to EMDR for neurodiverse populations presenting with trauma symptoms



Practice and research implications

- How to couch interventions within trauma informed-care models.
- What are appropriate assessment batteries so as to standardise outcomes across studies.
- What accommodations are required and how to marry fidelity with flexibility.
- Duration and dosage vary greatly.
- Adversarial trials



Thank you for your time and attention

Any Questions

