

UNDERSTANDING EXECUTIVE DYSFUNCTION

To optimise assessment and treatment for ADHD & trauma

Research presented at the 2023 APS Members Choice Symposium on Neurodiversity and Trauma, New Zealand, by Dr Bianca Calabria, ANU, UNSW, The Teal Psychology Space Pty Ltd.

Abstract

Background: Research has demonstrated that both Attention Deficit Hyperactivity Disorder (ADHD) and experience of trauma are associated with executive dysfunction (Antshel et al., 2014; Polak et al., 2012). Additionally, individuals who have ADHD are at higher risk of experiencing trauma, compared to peers who do not have ADHD (Antshel et al., 2013; Brown et al., 2017; Spencer et al., 2016). Evidence-based treatment approaches specifically target ADHD (Australian ADHD Guideline Development Group, 2022; Caye et al., 2019) or focus on trauma processing (Bohus et al., 2020; Hodgdon et al., 2022). The intersection between ADHD and trauma, and current evidence-based treatment approaches, require clinicians to be skilled at determining whether executive dysfunction is associated with ADHD or with experienced trauma; however, to date, research has not defined or differentiated these experiences.

Methods: This presentation will: 1) quantitatively and qualitatively describe executive dysfunction among adults who have ADHD and who have experienced trauma; and 2) define and differentiate executive dysfunction to inform diagnostic assessments and evidence-based treatment selection for ADHD and trauma. Study participants (n=40) were aged 18 years and older and were seeking a comprehensive diagnostic assessment for ADHD at a private clinical psychology practice in Canberra, Australia. Participants provided

informed consent for their quantitative and qualitative data to be used for research. All participants completed the Behaviour Rating Inventory of Executive Function – Adult Version (BRIEF-A; self-report) (Roth et al., 2005) and a three-hour clinical interview with a clinical psychologist, informed by the Diagnostic Interview for ADHD in Adults (DIVA-5) (Kooij et al., 2019) and including discussion of trauma and lived-experience of executive dysfunction.

Results: Participants' BRIEF-A Global Executive Composite *t*-scores ranged from 70 (97th percentile) to 85 (>99 percentile). Participants' experience of executive dysfunction related to ADHD was described as pervasive and persistent across contexts, and a daily frustration that contributed to negative self-concept. Their experience of executive dysfunction related to trauma was: situational or periodic; often precipitated by a known trigger; associated with feeling fear; could be perpetuated by dissociation (e.g. depersonalisation and derealisation); and resulted in significant psychological distress.

Clinical implications: Contextualising executive dysfunction has enormous potential to increase the accuracy of diagnostic assessment of ADHD and trauma. Given client engagement in, and favourable client outcomes of, evidence-based treatment are highly reliant on appropriate approaches being selected by clinicians, contextualising executive dysfunction could also improve the uptake and efficacy of evidence-based treatments.

Exploring and Understanding Executive Dysfunction

Is it Trauma?

Trauma: yes

Timing: periodic/triggered

Threat feeling: psychological distress and/or dissociation (can

have suicidal thoughts)

Trauma



Timing/Trigger



Threat feeling

Is it ADHD?

Trauma: maybe

Timing: persistent & pervasive

(can fluctuate)

Treat feeling: no (can have

negative self-concept)

Is it Autism?

Trauma: maybe

Timing: Autistic burnout or in

social situations

Treat feeling: no (can have

suicidal thoughts because want

overwhelm to end)





Beaconhouse Dissociation Cards:
Resources (beaconhouse.org.uk)

References

- Antshel, K. M., Hier, B. O., & Barkley, R. A. (2014). Executive Functioning Theory and ADHD. In S. Goldstein & J. A. Naglieri (Eds.), *Handbook of Executive Functioning* (pp. 107-120). Springer New York. https://doi.org/10.1007/978-1-4614-8106-5 7
- Antshel, K. M., Kaul, P., Biederman, J., Spencer, T. J., Hier, B. O., Hendricks, K., & Faraone, S. V. (2013). Posttraumatic stress disorder in adult attention-deficit/hyperactivity disorder: clinical features and familial transmission. *J Clin Psychiatry*, 74(3), e197-204. https://doi.org/10.4088/JCP.12m07698
- Australian ADHD Guideline Development Group. (2022). The Australian Evidence-Based Clinical Practice Guideline For Attention Deficit Hyperactivity Disorder (ADHD).
- Bohus, M., Kleindienst, N., Hahn, C., Müller-Engelmann, M., Ludäscher, P., Steil, R., Fydrich, T., Kuehner, C., Resick, P. A., Stiglmayr, C., Schmahl, C., & Priebe, K. (2020). Dialectical Behavior Therapy for Posttraumatic Stress Disorder (DBT-PTSD) Compared With Cognitive Processing Therapy (CPT) in Complex Presentations of PTSD in Women Survivors of Childhood Abuse: A Randomized Clinical Trial. JAMA Psychiatry, 77(12), 1235-1245. https://doi.org/10.1001/jamapsychiatry.2020.2148
- Brown, N. M., Brown, S. N., Briggs, R. D., Germán, M., Belamarich, P. F., & Oyeku, S. O. (2017). Associations Between Adverse Childhood Experiences and ADHD Diagnosis and Severity. *Academic Pediatrics*, 17(4), 349-355. https://doi.org/10.1016/j.acap.2016.08.013
- Caye, A., Swanson, J. M., Coghill, D., & Rohde, L. A. (2019). Treatment strategies for ADHD: an evidence-based guide to select optimal treatment. *Mol Psychiatry*, 24(3), 390-408. https://doi.org/10.1038/s41380-018-0116-3
- Hodgdon, H. B., Anderson, F. G., Southwell, E., Hrubec, W., & Schwartz, R. (2022). Internal Family Systems (IFS) Therapy for Posttraumatic Stress Disorder (PTSD) among Survivors of Multiple Childhood Trauma: A Pilot Effectiveness Study. *Journal of Aggression, Maltreatment & Trauma*, 31(1), 22-43. https://doi.org/10.1080/10926771.2021.2013375
- Kooij, J. J. S., Francken, M. H., & Bron, T. I. (2019). *Diagnostic Interview for ADHD in Adults (5th Edition; DIVA-5).* D. Foundation. https://www.divacenter.eu/DIVA.aspx?id=528
- Polak, A. R., Witteveen, A. B., Reitsma, J. B., & Olff, M. (2012). The role of executive function in posttraumatic stress disorder: a systematic review. *J Affect Disord*, 141(1), 11-21. https://doi.org/10.1016/j.jad.2012.01.001
- Roth, R. M., Isquith, P. K., & Gioia, B. A. (2005). *Behaviour Rating Inventory of Executive Function–Adult Version (BRIEF-A)*. P. A. Resources.
- Spencer, A. E., Faraone, S. V., Bogucki, O. E., Pope, A. L., Uchida, M., Milad, M. R., Spencer, T. J., Woodworth, K. Y., & Biederman, J. (2016). Examining the association between posttraumatic stress disorder and attention-deficit/hyperactivity disorder: a systematic review and meta-analysis. *J Clin Psychiatry*, 77(1), 72-83. https://doi.org/10.4088/JCP.14r09479