

The Impact of PTSD on Children's Development, Cognition, Education, and Learning:

Implications for Legal Practice

Dr Alexandra Sewell

Educational and Child Psychologist

BA(Hons), MSc, AppEdandChildPsychD, C.Psychol

Expert in Mind
Essential in uniting professionals



The **ADHD** Clinic



Your host



Dr Alexandra Sewell

- ☀️ HCPC-registered Educational and Child Psychologist
- ☀️ Chartered Psychologist with British Psychology Society
- ☀️ Academic Researcher and Independent Practitioner
- ☀️ Medico-Legal Expert Witness

Learning Points

By the end of the session, we will consider:

- ✓ What PTSD and complex trauma can look like in children;
- ✓ How trauma may affect attention, memory, executive functioning and readiness to learn;
- ✓ How these difficulties may present in school;
- ✓ Why educational and cognitive impact may be relevant to legal interpretation;
- ✓ How Educational Psychology evidence can support clearer understanding of the child's functioning.

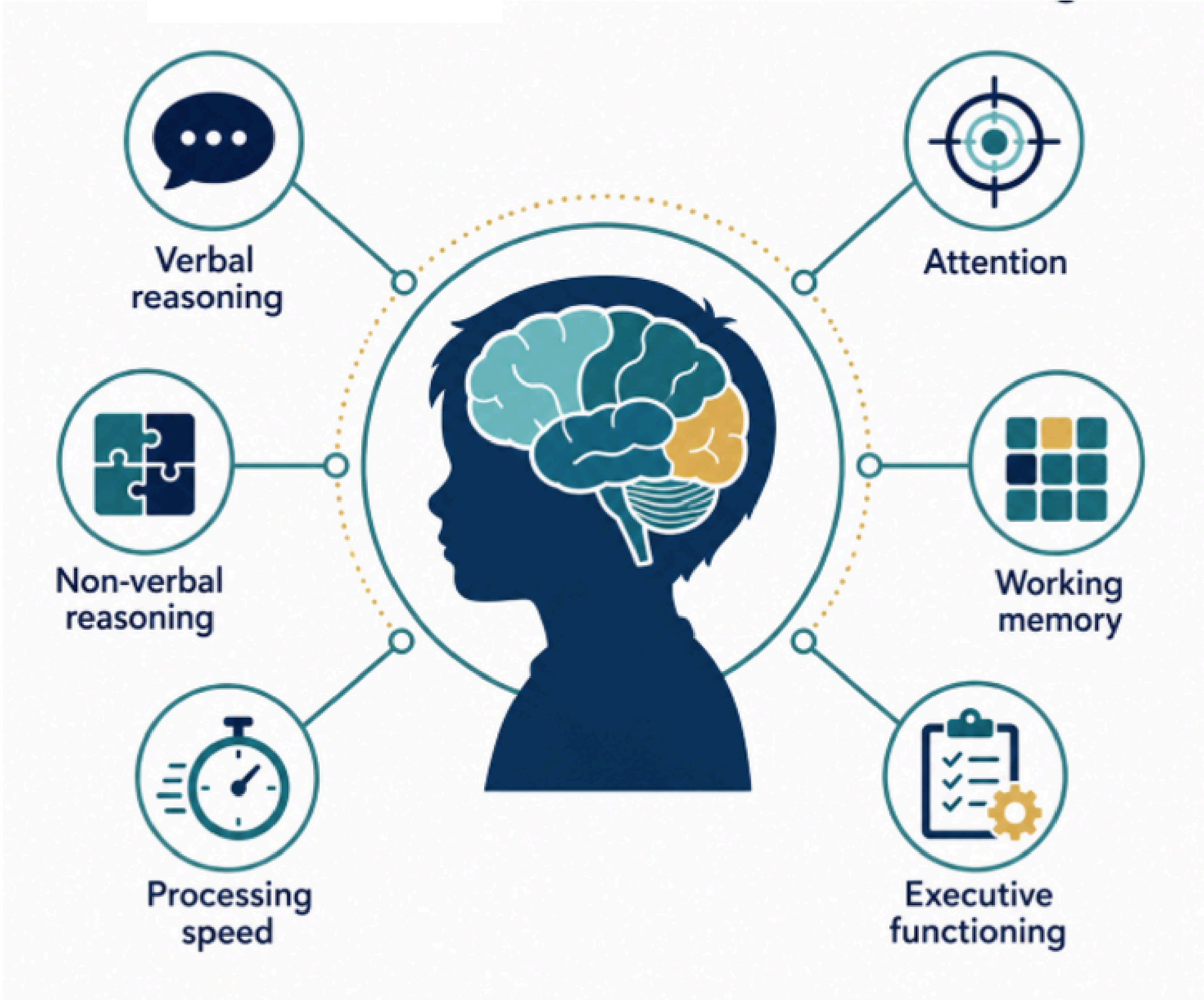
Implications for Legal Practice

Legal issue	How trauma/cognition may matter
Causation	Was there a change in learning, attention, memory, and school engagement after the traumatic events?
Quantum / loss	Has trauma, via cognitive difficulties, affected attainment, access to education, future learning or vocational trajectory?
Educational Functioning	How is trauma, via cognitive difficulties, affecting the child's learning, attendance, behaviour, progress and access to education?
SEND / EHCP / provision	Does the child need trauma-informed educational provision, cognitive intervention, reduced demands, predictable routines, adult mediation etc?
Disability discrimination / negligence	Were trauma-related needs, including potential impact on cognition and learning recognised, understood and reasonably accommodated?
Expert evidence	What can an EP assess that complements psychiatric/clinical evidence?

What *is* trauma?

- ▶ Single-event trauma vs chronic/developmental trauma
- ▶ Primary trauma vs secondary/vicarious trauma
- ▶ PTSD vs complex PTSD
- ▶ Trauma exposure ≠ PTSD ≠ cognitive impairment
- ▶ Sub-clinical post-traumatic stress symptoms may still affect learning and functioning

Cognition and Learning



Complex trauma and cognition: evidence base

Strong evidence of poorer cognitive outcomes after complex trauma

Fan & Kang, 2025: meta-analysis of 465 studies

Deficits found in:

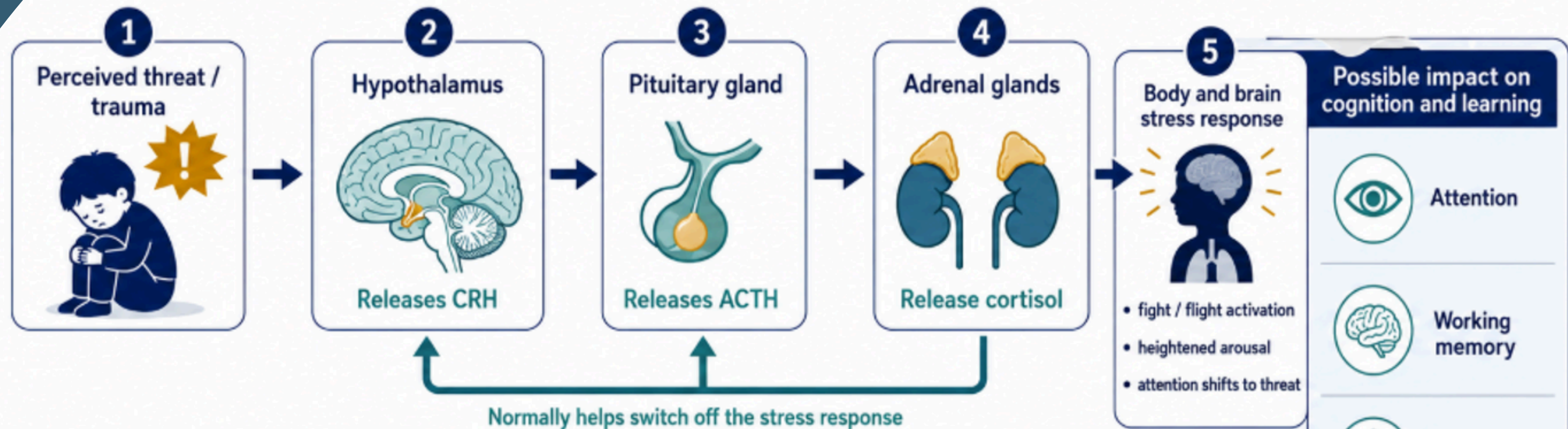
- ▶ Attention
- ▶ Working memory
- ▶ Executive function
- ▶ Processing speed

Matte-Landry et al., 2023: timing matters

Greater impact linked to early onset and recent exposure

Cognitive outcomes may improve with stability, intervention and changed circumstances

The HPA Axis and Trauma



- ### Possible impact on cognition and learning
- Attention
 - Working memory
 - Executive functioning
 - Emotional regulation

! With chronic or repeated trauma

- Prolonged activation of the HPA axis
- Stress system becomes dysregulated
- Cortisol response may stay too high or become blunted over time
- Reduced readiness for learning

Single Incident Trauma

Malarbi et al. (2020): children exposed to motor vehicle accident trauma

PTSD/PTSS group showed poorer:

- ▶ Immediate verbal recall / working memory
- ▶ Executive functioning
- ▶ Verbal intellectual abilities

Nyvold et al. (2021): PTSS linked to poorer executive functioning

Effects were stronger for children with PTSS than trauma-exposed children without PTSS

Particularly relevant to working memory and shifting

Case study:

Single-incident trauma and educational impact

Child A: Secondary-aged pupil

Witnessed a traumatic road traffic incident involving a close family member

Existing medico-legal psychiatric assessment diagnosed PTSD

Educational Psychology instruction focused on:

- ▶ Causation
- ▶ Cognition and learning
- ▶ Educational functioning
- ▶ Prognosis
- ▶ Support/provision needs

Key question:

Had PTSD affected Child A's ability to access learning and demonstrate attainment?

Case study:

Single-incident trauma and educational impact

Child A: Secondary-aged pupil

Witnessed a traumatic road traffic incident involving a close family member

Existing medico-legal psychiatric assessment diagnosed PTSD

Educational Psychology instruction focused on:

- ▶ Causation
- ▶ Cognition and learning
- ▶ Educational functioning
- ▶ Prognosis
- ▶ Support/provision needs

Key question:

Had PTSD affected Child A's ability to access learning and demonstrate attainment?

Assessment Findings

Developmental and school history indicated no previous SEND or cognitive concerns

Pre-incident profile: positive school functioning, good peer relationships, age-appropriate attainment

Post-incident concerns included:

- ▶ Emotional avoidance
- ▶ Concentration lapses
- ▶ Anxiety and reassurance-seeking
- ▶ Discrepancy between classroom performance and exam results

Cognitive Assessment

- ▶ Broadly average overall ability
- ▶ Relative weakness in working memory
- ▶ Relative weakness in processing speed

Pattern was inconsistent with his previous educational trajectory

Formulation and Legal Relevance

PTSD Symptoms



Emotional avoidance, hypervigilance, cognitive self-monitoring



Reduced cognitive availability



Working memory and processing speed difficulties



Difficulty reproducing secure learning in exams



Educational impact and prognosis concerns

Legal Relevance

- ▶ Supported opinion on causation
- ▶ Clarified educational loss/impact
- ▶ Linked PTSD to cognitive and exam functioning
- ▶ Identified need for support and future reassessment

Implications for Legal Practice

Legal issue	How trauma/cognition may matter
Causation	Was there a change in learning, attention, memory, and school engagement after the traumatic events?
Quantum / loss	Has trauma, via cognitive difficulties, affected attainment, access to education, future learning or vocational trajectory?
Educational Functioning	How is trauma, via cognitive difficulties, affecting the child's learning, attendance, behaviour, progress and access to education?
SEND / EHCP / provision	Does the child need trauma-informed educational provision, cognitive intervention, reduced demands, predictable routines, adult mediation etc?
Disability discrimination / negligence	Were trauma-related needs, including potential impact on cognition and learning recognised, understood and reasonably accommodated?
Expert evidence	What can an EP assess that complements psychiatric/clinical evidence?

References

- Fan, L., & Kang, T. (2025). Early childhood trauma and its long-term impact on cognitive and emotional development: A systematic review and meta-analysis. *Annals of Medicine*, 57(1), Article 2536199. <https://doi.org/10.1080/07853890.2025.2536199>
- Malarbi, S., Abu-Rayya, H. M., Muscara, F., & Stargatt, R. (2020). Post-traumatic stress symptoms and cognition in children exposed to motor vehicle accident trauma. *Clinical Child Psychology and Psychiatry*, 25(1), 28–39. <https://doi.org/10.1177/1359104519889211>
- Matte-Landry, A., Grisé Bolduc, M.-È., Tanguay-Garneau, L., Collin-Vézina, D., & Ouellet-Morin, I. (2023). Cognitive outcomes of children with complex trauma: A systematic review and meta-analyses of longitudinal studies. *Trauma, Violence, & Abuse*, 24(4), 2743–2757. <https://doi.org/10.1177/15248380221111484>
- Norte, C. E., Vargas, A. L. V., & de Carvalho Silveira, A. (2024). Post-traumatic stress disorder and working memory: A systematic review. *Trends in Psychology*, 32(2), 612–623.
- Nyvold, O., Nygaard, E., Augusti, E.-M., & Tamnes, C. K. (2022). Unity or diversity of executive functioning in children and adolescents with post-traumatic stress symptoms? A systematic review and meta-analysis. *Child Neuropsychology*, 28(2), 236–266. <https://doi.org/10.1080/09297049.2021.1979950>

Thank you for joining us.

Do you have any questions?

