

A systematic review of context-specific neuropsychological interventions for children and young people with brain injuries

Author: Birdsey, N¹., Tucker, P²., Pass, A¹., Kristoffersen, M¹. & Millar, J.¹

Affiliations: University of Bristol UK¹; Recolo UK Ltd²

BACKGROUND:

Neuropsychological support for children with brain injuries has traditionally involved individualised interventions that focus on specific aspects of functioning in isolation. This singular focus places expectations on the child to generalise this new learning to other areas of functioning and everyday settings. In recent years, clinical neuropsychologists have recognised the importance of delivering interventions that are embedded in meaningful social contexts and involve others from the individual's support system. However, limited attention has been given to context-specific interventions in the paediatric literature, and the evidence base for the effectiveness of contextually-situated interventions remains unclear.

AIMS:

This study sought to review the evidence base for context-specific neuropsychological interventions that seek to improve functioning in children with brain injuries.

METHOD:

Systematic searches of PsychNET, PubMed and Web of Science identified 3625 studies with 21 studies meeting inclusion criteria (Figure 1). All studies were independently screened by two reviewers at both title and abstract and full text review. A quality assessment was undertaken by two independent reviewers. A narrative approach was used to synthesise the findings.

RESULTS:

A total of 1272 children and young people with brain injuries were included in this review (mean age: 10.95 years). 19 studies were randomised controlled trials, and two studies employed a quantitative descriptive case series design. Studies were identified across six domains: Attention and memory (n=2), executive function (n=5), cognition (n=4), behaviour (n=8), family functioning (n=2), and social competence (n=2) (for Table 1 use QR Code).

CONCLUSION:

This review indicates that there is a growing evidence base for the use of neuropsychological interventions being undertaken in meaningful social contexts. However, a number of factors preclude firm conclusions from being drawn, with regards to efficacy. Primarily, the small number of studies in each neuropsychological domain, along with the lack of consistency in outcome measures, the absence of follow-up data across studies, and the limited reporting on effect sizes. Further high-quality longitudinal research is therefore needed to fully demonstrate the value of context-specific neuropsychological interventions to improve functioning across different domains in children with brain injuries.



Scan this QR code for access to the Context-Specific Interventions for Children with Brain Injuries Table of Studies.

Figure 1: PRISMA flow chart illustrating the review selection process (adapted from Page et al., 2021)

