



Impact of traumatic brain injury on social cognition in adolescents and contribution of other higher order cognitive functions

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ABSTRACT

Social cognition impairments can contribute to social participation difficulties following traumatic brain injury (TBI). However, little attention has been given to these impairments during adolescence, a period of life when peer relationships are central. The aim of the current study was to examine the impact of a moderate to severe TBI sustained in adolescence on multiple facets of social cognition. Twenty-three adolescents who had sustained a moderate-to-severe TBI were compared with a group of 23 typically developing peers. The Integrated Social Cognition Battery (mentalising, social knowledge, emotion recognition) and the Interpersonal Reactivity Index were administered, along with non-social cognition tests (selective attention, working memory, executive functions), IQ estimation, and a socio-demographic questionnaire. Adolescents with TBI reported having a significantly lower ability to take other people's perspectives versus controls. They also presented significantly lower levels of mentalising. After controlling for non-social higher-order cognitive variables, the group effect on mentalising remained marginally significant, whereas the effect on perspective taking remained significant. Our findings suggest the presence of primary deficits in social cognition following TBI in adolescence. These deficits could partially underlie the social reintegration difficulties encountered following TBI. A systematic assessment of social cognition in clinical practice is necessary.

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Introduction

Moderate or severe traumatic brain injury (TBI) sustained during adolescence frequently results in cognitive and emotional disruptions that can persist or even exacerbate over

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