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Long-term changes in social adaptive abilities following early mild traumatic brain injury

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INTRODUCTION

- Social problems among the most debilitating consequences of TBI [1]
- Mild TBI (mTBI) sustained in early childhood (<6 years)
- Disrupted expected development of social adaptive abilities over 18-month post-injury [2]
- Slowing acquisition of social adaptive abilities after early mTBI?

OBJECTIVE

- To explore whether the slowing in the acquisition of social adaptive abilities persists in the long-term (60-month post-injury)

METHODS

Participants
- 81 children with mTBI (38 girls) aged 1.5 to 5 years at injury
- 60 with orthopaedic injury (OI; 34 girls) aged 1.5 to 5 years at injury

Child’s social adaptive abilities
- Parent-report
- Adaptive Behavior Assessment Scale-II Social skills sub-scale
- 5 assessments:

Longitudinal analyses
- Growth curve analysis [3]
- Group effects on the time course of social adaptive abilities captured with a third-order (cubic) natural polynomial

RESULTS

- No effect of group at pre-injury
- Marginal or significant effect of group on all time terms

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DISCUSSION

- Children with OI
  - 0-18 months post-injury:  by 0.40 point per month
  - 18-60 months post-injury: progressive  by -0.08 point per month
- Children with mTBI
  - 0-6 months post-injury: remained at the pre-injury level
  - 6-30 months post-injury: slow  by 0.15 point per month
  - 30-60 months post-injury:  by -0.14 point per month

Conclusion

- Early mTBI may disrupt the expected developmental progression of children’s social adaptive behavior
- The developmental profile of social abilities in children with mTBI appears to follow the same overall pattern as other children of the same age, but with a delayed onset after a 6-month period of stagnation and a slower improvement rate

REFERENCES


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