Social Outcomes in Kids with Brain Injury (SOBIK)

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The overall goal of this study is to examine the social outcomes of childhood traumatic brain injury (TBI). The study's specific aims are to: (1) characterize the social interactions and adjustment of children with TBI; (2) examine social information processing in children with TBI; (3) determine the integrity of brain regions and structures known to be vulnerable to TBI and implicated in social information processing; and (4) study the linkages among brain structures, social information processing, and social behavior and adjustment among children with TBI.

Overview of Study Design and Measures
The study used a cross-sectional, concurrent cohort design comparing 150 children with moderate to severe TBI to 150 children with orthopedic injuries (OI children) not involving the head. The OI group was chosen to assess the consequences of TBI relative to the consequences of trauma not involving the head, as well as to control for demographics and other factors associated with the risk of traumatic injury. Participants in both groups completed a series of assessments:

- Structural magnetic resonance imaging. Neuroimaging will enable volumetric and lesion analyses targeting the brain systems implicated in social information processing.
- Social cognition and Executive functions. We used existing measures of social-affective and cognitive-executive functions and social problem-solving, most of which are known to be sensitive to childhood TBI.
- Observations of peer interactions. We observed participants interacting with mutual friends, as well as with unfamiliar peers.
- Classroom peer nominations. Peer nominations and ratings were obtained in the participants’ classrooms, to provide measures of peer acceptance, reciprocal friendship, and behavioral reputation (e.g., aggressiveness; anxious withdrawal; victimization; social competence; leadership).
- Teacher ratings. Teachers completed measures of behavioral reputation, social skills, and classroom adjustment.
- Parents ratings. Parents provided ratings of social skills and general adjustment at home.
- Measures of potential environmental moderators. Parents completed measures of socioeconomic status, family functioning, and parenting practices, which are variables that could act as risk or resilience factors in moderating the effects of TBI on social development.

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