

# Promoting Social Participation: Children with Acquired Brain Injuries

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## Background

- Social participation defined as “taking part, involvement, engagement, doing or being *with others*” (Bedell, 2012)
- Childhood participation associated with increased feeling of “purpose in life” (Van Tol, Gorter, Dematteo & Meester-Delver, 2011) and depressive symptoms associated with decreased participation (Law, 2002)
- Acquired brain injury (ABI) can affect child’s ability to participate socially which can hinder development, quality of life, and acquisition of critical skills (Bedell & Dumas, 2004)
- Research shows that key factors that affect social participation in children with ABI include impaired executive functioning, severity of the injury, and the child’s physical and social environment (Gillet, 2004; Yeates et al., 2007)

## Purpose

- Synthesize and report on current evidence regarding strategies and interventions for promoting social participation in children with ABI
- Organize and integrate knowledge on existing strategies that may assist parents, teachers, therapists, and other professionals in helping to promote social participation and, in turn, development and quality of life in children with ABI

## Method

- Searches conducted on several databases (CINAHL, OVID, PsychINFO) in search of relevant literature on social participation in children with ABI
- Other articles examined based on recommendations from others and a review of reference lists of all relevant articles
- Key words searched included *social participation/social skills* combined with *acquired brain injury/traumatic brain injury/brain injury* and/or *child/kid/youth*
- Article preference given to studies addressing school-age children specifically
- Preference given to studies focusing specifically on constructs of social participation, with some studies looking at participation more generally also included

## Descriptive Evidence

Study	Key Findings
Bedell, Cohn & Dumas (2005)	<ul style="list-style-type: none"> <li>•Effective strategies for promoting social participation in children with ABI must fit into family routine</li> <li>•Three major categories of strategies (creating opportunities, teaching skills, regulating cognitive/behavioral function)</li> <li>•Strategies developed through trial and error</li> <li>•Anticipatory planning used by parents</li> </ul>
Wells, Minnes & Phillips (2009)	<ul style="list-style-type: none"> <li>•Most common restrictions for children with TBI occurring in socialization with same-aged peers</li> <li>•Outcomes for children with TBI product of severity of physical injury, age of injury, clinical expertise, and environment</li> </ul>
Ross, McMillan, Kelly, Sumpter & Dorris (2011)	<ul style="list-style-type: none"> <li>•Evidence of emotional and behavioral difficulties in children with TBI that may lead to later social vulnerabilities</li> <li>•Deficits in friendship quality and loneliness more likely to manifest in adolescence</li> <li>•+1-2 quality friendships may not be sufficient to protect from impacts of social exclusion/rejection of larger peer circle</li> </ul>
Prigatano & Gray (2008)	<ul style="list-style-type: none"> <li>•Degree of social reintegration post-TBI may be impacted by severity of brain injury, as well as child’s present neuropsychological status and family/social environment</li> <li>•Severity of injury directly correlated with parental ratings of child with TBI’s social reintegration</li> </ul>
Dumas, Bedell, & Hamill (2003)	<ul style="list-style-type: none"> <li>•Strategies used by parents/professionals to promote participation in children with ABI fell into 3 categories (routine/ repetition/consistency, supports/models, and curriculum/environmental modifications)</li> </ul>
Mealings & Douglas (2010)	<ul style="list-style-type: none"> <li>•Interviews with 3 male students under age 18 with ABI revealed 3 major themes in their return to school and participation post-injury: adolescent student sense of self, changes within students themselves as well as changes in activities/roles/interactions, and supports that they were aware of</li> <li>•Absence of behavior and social skill changes is one of best predictors for successful return to school</li> </ul>
Gauvin-Lepage & Lefebvre (2010)	<ul style="list-style-type: none"> <li>•Adolescents with TBI reported greatest difficulties in concentration, impulsivity, disinhibition, and communication</li> <li>•Disruption in family lives further compounded by uncertain prognosis of TBI</li> <li>•Friend support has major impact (positive or negative) on recovery of individual with TBI</li> <li>•Emphasize gradual return to activities within and outside of the school</li> </ul>

## Interventions Promoting Social Participation

Study	Intervention	Key Findings
Giang, Todis, Cooley, Wells & Voss (1997)	4-stage team problem-solving process based on input from meetings with TBI family, peers, school professionals every 2-3 weeks over 3-4 months.	<ul style="list-style-type: none"> <li>•Number of social contacts increased from baseline (p&lt;.01)</li> <li>•Increase in degree of participation in “regular school life”</li> <li>•Improvements not maintained over time</li> </ul>
Barakat, Hetzke, Foley, Carey, Gyato & Phillips (2003)	Weekly group meetings over 13 months with 13 children and parents ages 8-14 with ABI targeting nonverbal communication, conversational skills, compliments, empathy, conflict resolution, & cooperation	<ul style="list-style-type: none"> <li>•Improvements in social skills, functioning, &amp; competence from baseline to follow-up</li> <li>•Significant improvement in child MPQLQ Social Competence scale (p=.008)</li> <li>•Significant improvement in CBCL Total Competence scale (p=.049)</li> </ul>
Missiuna, DeMatteo, Hanna, Mandich, Law, Mahoney & Scott (2010)	10 weekly individualized OT sessions with 6 children ages 6-15 post-TBI teaching “Goal-Plan-Do-Check” strategy with therapist aiding in discovery of task-specific strategies and bridging techniques to achieve specific child-directed goals	<ul style="list-style-type: none"> <li>•Improvements in ability to perform child-chosen tasks with performance maintained over 4 months</li> <li>•Significant improvements in performance and satisfaction scales of Canadian Occupational Performance Measure (p&lt;.001) and social score of Vineland Adaptive Behavior Scale (p=.043)</li> </ul>
Davies, Jones & Rafoth (2010)	Self-monitoring intervention matching child self-ratings with teacher ratings with matches and discrepancies between student/teacher ratings discussed for 3 students with TBI	<ul style="list-style-type: none"> <li>•Improved classwork and behavior in all 3 participants associated with increased accuracy in self-monitoring skills as seen by observation and ordinal ratings on Likert-type scale re: frequency, duration, intensity of behaviors in specified time interval</li> </ul>
Wade, Michaud & Maines Brown (2006)	7-session problem-solving/skill-building intervention delivered over 6 month period for families of 32 children with TBI	<ul style="list-style-type: none"> <li>•Significant reductions in child behavior problems including improvements in withdrawal (F=6.01), internalizing symptoms (F=5.64), and anxiety/depression (F=7.26) of CBCL</li> </ul>

## Discussion

- Evidence suggests that interventions should focus on both participation specifically, in addition to the foundational skills needed to improve social participation (i.e. social mediation, cooperation, metacognition)
- Interventions that are family-centered and promote collaborative problem-solving using a top-down approach emerged as consistent theme
- Important to consider age of child and time since injury, as well as their current strengths and areas of improvement (Wells, Minnes & Phillips, 2009)

## Recommendations

- Lack of controlled research into most effective strategies and interventions specifically aimed at promoting social participation in children with acquired brain injuries
- Continued research needed to investigate long-term effectiveness of existing interventions
- Additional research targeting promotion of social participation and participation more generally in children with other diagnoses that can potentially be applied to children with ABI (Dunn et al., 2012; Graham, Rodger, & Ziviani, 2010)

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