

## Critically Appraised Papers

# A peer-mediated school intervention significantly improved the social skills and playground interactions of children with autism spectrum disorder

### Synopsis

**Summary of:** Kasari, C., Rotheram-Fuller, E., Locke, J. & Gulsrud, A. (2012). Making the connection: Randomized controlled trial of social skills at school for children with autism spectrum disorders. *Journal of Child Psychology and Psychiatry*, 53(4), 431–439.

**Research objective:** To compare two school-based interventions aimed at improving the social skills of high functioning, fully included children with autism spectrum disorder (ASD).

**Design/Participants:** This randomised controlled trial (RCT) employed a 2 × 2 factorial design and included 60 children with ASD and their 815 typically developing classroom peers, aged 6–11 years. Children with ASD were randomised to a: (1) peer-mediated (PEER) ( $n = 30$ ) or (2) child-assisted (CHILD) ( $n = 30$ ) intervention. Within this design, 15 children received both interventions and 15 children received no treatment.

**Setting:** Intervention sessions took place at the school of the child with ASD; the study included 30 different schools in the United States.

**Intervention:** Children allocated to the CHILD intervention met with a trained therapist during lunch for 20 minutes, twice per week, for six weeks. The therapist used direct instruction and role-playing to target skill development. In the PEER intervention, three typically developing peers from the target child's classroom met with a therapist for 20 minutes, twice per week, for six weeks. Through direct instruction, modelling and role-playing, peers were taught how to: encourage positive social interactions, initiate play, and facilitate games for children who had difficulty making friends.

**Outcome measures:** *Primary measures.* The Social Network (SN) Survey was administered to children in classrooms to examine social network salience before, after and three-months following the intervention. The Playground Observation of Peer Engagement was scored by blinded assessors: before, after and at the three-month follow-up. *Secondary measures.* The Teacher Perception of Social Skills and the SN Survey (measuring: received friendship nomi-

nations, nominations of friendship, rejections and reciprocal friendship nominations).

**Results:** There was a significant group effect on children's social network salience ( $P < 0.001$ ). The PEER intervention had a significant, large effect ( $P < 0.001$ ,  $d = 0.76$ ), while the CHILD intervention had a non-significant, small effect ( $P = 0.06$ ,  $d = 0.36$ ). Children who received the PEER intervention also had an improved number of received friendship nominations ( $P < 0.001$ ) and teacher report of social skills in the classroom ( $P < 0.001$ ); with gains persisting at follow-up. By the three-month follow-up, playground isolation had significantly decreased ( $P < 0.001$ ) and joint engagement had significantly increased ( $P = 0.01$ ). There were no significant group differences in secondary outcomes of: friendship nominations by the child, rejections or reciprocal friendships.

**Author's conclusions:** Peer-mediated treatments were superior to non-peer-mediated treatments on several outcomes. The school setting offers unique opportunities to teach typically developing peers to become sensitive and helpful towards peers with different learning and developmental needs.

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### Commentary

Kasari *et al.* (2012) used a RCT design to determine the effectiveness of two interventions aimed at improving the social skills of students with ASD. The study appears to have a low risk of bias, with rigorous measures taken to ensure treatment fidelity and to avoid any contamination between the different interventions.

High-level evidence (e.g. RCTs) of social skills interventions for children with ASD is sparse (Williams White, Keonig & Scahill, 2007). The large sample size and consistency of reported social difficulties of children with ASD across western countries, suggests that the treatment prin-

ciples from the study could possibly be applied more widely (Schreiber, 2011).

The results of this study have several important implications for occupational therapists working with children with ASD. The results challenge the current and most common approach of social skills intervention for children with ASD, which is usually delivered in a clinical setting. The results support previous research findings that interventions should be executed in the child's natural environment to ensure generalisation of social skills (Rao, Beidel & Murray, 2008). The authors acknowledge the fact that generalisation of social skills is hard for children with ASD (Rao *et al.*) and conclude that interventions may have to be conducted in the playground through therapist/staff facilitation.

The results also support the use of typically developing peers in social interventions for children with ASD. The PEER intervention not only facilitated the social skills development of children with ASD, but also peers' acceptance of their classmate. Children with ASD have been reported to be at higher risk of being bullied (Cappadocia, Weiss & Pepler, 2012), perceive themselves as participating less in classroom activities compared with their peers (Falkmer, Granlund, Nilholm & Falkmer, 2012), and continually struggle with social interactions (McConnell, 2002). Peers are often aware of differences in behaviour in their classmates with ASD, which leads to fewer interactions (DiSalvo & Oswald, 2002). Interventions involving peers have the potential to change peers' perceptions, which can result in them going to greater effort to interact with, include and support their classmates with ASD (DiSalvo & Oswald). Increased interactions not only assist the development of social skills for children with ASD but also benefit peers (DiSalvo & Oswald).

Overall, the findings from this study support previous research, indicating that interventions involving both peers and the child with ASD have positive effects on social interactions in school settings (McConnell, 2002). Despite this, the authors discuss the results with due caution and emphasise that more research in this area is needed.

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# An online psycho-educational intervention for parents did not impact parent or child post-traumatic stress symptoms more than usual care for children following injury

## Synopsis

Summary of Marsac, M. L., Hildenbrand, A. K., Kohser, K. L., Winston, F. K., Li, Y. & Kassam-Adams, N. (2013). Preventing posttraumatic stress following pediatric injury: A randomized controlled trial of a web-based psy-

cho-educational intervention for parents. *Journal of Pediatric Psychology*, 38(10), 1101–1111.

*Research objective:* To examine the feasibility and efficacy of AfterTheInjury.org (ATI) intervention in preventing child and parent Post Traumatic Stress Symptoms (PTSS)