

Background

Peer-mediated interventions are interventions in which peers without disabilities are systematically taught to engage children with disabilities in positive social interactions, with the aim of helping children with disabilities acquire new, targeted social skills.

Peer-mediated interventions have been used to enhance the social and play skills of young children with disabilities for many years and continues to be commonly used with young children with disabilities in classroom settings.

Because of the frequent use of peer-mediated interventions, it is important to know the level of empirical support for this instructional practice.

Purpose

The purpose of this overview is to provide a summary of systematic reviews of peer-mediated interventions for young children under the age of five years old who have or are at risk for delays or disabilities.

Objectives

- Evaluating characteristics of peer-mediated interventions
- Evaluating components of peer-mediated interventions
- The presentation of PMI focal and peer participants across reviews
- Drawing conclusions about the effects of peer-mediated interventions

Methods

This synthesis is an overview of reviews, which is a review method used for evaluating existing research reviews.

To complete this overview, we searched electronic databases and other sources for published articles presenting the results of reviews of studies on peer-mediated interventions for young children with or at risk for disabilities under the age of five years old.

We then synthesized the findings across reviews to formulate conclusions on the effects of the intervention to make practice recommendations.

Results

We searched the literature in October 2023 for articles that presented findings of a systematic review on peer-mediated interventions for young children with or at risk of disabilities under the age of five years old.

We located 10 reviews. In the 10 reviews there were 47 studies with 114 young children with a variety of developmental disabilities. In the studies included in the reviews, the peer-mediated interventions typically occurred in natural settings including inclusive classrooms and children's homes.

Findings

The findings from all 10 included reviews suggested that peer-mediated interventions were an effective intervention for improving the social development of young children with disabilities. Over 80% of the 47 studies included in the 10 reviews had positive findings.

A summary of the findings across reviews is shown in Table 1 below.

Three reviews conducted a meta-analysis, which is a statistical technique of combining results across studies. All three meta-analyses showed robust results of the peer-mediated intervention.

Thus, the use of peer-mediated interventions for children with or at risk of disabilities under the age of five is strongly supported by empirical research. Therefore, peer-mediated interventions should be considered an evidence-based practice for young children with disabilities.

As demonstrated in the reviews, the use of peer-mediated interventions was most robust when used with preschool-aged children in inclusive (natural) settings.

Table 1. Effects of Peer-Mediated Interventions on Young Children with Disabilities

Author and Year	Review Type	Studies	Sample Size	Age range (years)	Disability	Findings and conclusions of PMI of young children with disabilities
Chan (2009)	SR	10	<i>n</i> = 22	2-11	ASD	10 of 10 studies including CWD <5 years old had positive effects; "Collectively, the [42] studies suggest that PMI is a potentially versatile and effective intervention approach." (p. 885)
Chang (2016)	SR	1	<i>n</i> = 5	3-4	ASD	1 of 1 study including CWD <5 years old had a positive effect; "This review [across 5 studies] provides further support of the effectiveness of PMIs for children with ASD." (p. 9)
Chapin (2018)	SR, MA	17	<i>n</i> = 37	3-5	ASD	15 of 18 studies including CWD <5 years old had positive effects and showed a moderate and large effect, respectively, for PMI with children 3;0 to 3;11 and 4;0 to 4;11 years old (improvement rate difference effect size = 0.65 [SD = 0.29] and improvement rate difference effect size = 0.72 [SD = 0.07]) "This review [across 18 studies] provides evidence that [PMI] focused on teaching peers to support the communication of young children with ASD can result in positive changes in the social communication behaviors of children with ASD." (p. 453)
Gunning (2019)	SR	29	<i>n</i> = 67	2-5	ASD	23 of 30 studies including CWD <5 years old had positive effects; "Positive findings [across 31 studies] lend support to the certainty of evidence demonstrate for PMI for preschool children with ASD"... "PMI may be a particularly suitable intervention to support social development and social inclusion within inclusive preschool services." (p.57)
Ledford (2023)	SR, MA	7	<i>n</i> = 18	3-8	ASD, DD, ID, DHH, at-risk	Meta-analytic finding showed very strong effects for PMI (log response ratio effect size = 1.12; 95% CI 0.48 to 1.77); "Results of both visual analysis and meta-analysis [across 9 studies] indicate positive outcomes for implementing peers and focal participants for improving broad social interactions during free play activities and homes." (p. 225)
Martinez (2021)	SR	7	<i>n</i> = 16	3-8	ASD	7 of 7 studies including CWD <5 years old had positive effects; "The findings [across 18 studies] provide evidence that implementing PMI in general education settings is effective for improving the social competence of young children with ASD." (p. 225)
O'Donoghue (2021)	SR	11	<i>n</i> = 26	3-5	ASD	7 of 11 studies including CWD <5 years old had positive effects, mixed findings in 4 of 11 studies; "The current review [across 25 studies] shows that [PMI] has the potential to increase interaction between children with autism and their peers in supportive communicative contexts." (p.63)
Watkins (2015)	SR	2	<i>n</i> = 4	4-5	ASD	2 of 2 studies including CWD <5 years old has positive findings; "The positive outcomes reported in these 14 studies suggest that PMI is a promising intervention for promoting social interaction between students with ASD and their peers in inclusive settings." (p. 138)
Zagona (2018)	SR	3	<i>n</i> = 8	3-5	ASD	3 of 3 studies including CWD <5 years old showed positive effects; "Overall, participants in the majority of the [17] reviewed studies demonstrated an increase in social-communication skills, including initiations, responses, and continuations." (p.138)
Zhang (2011)	SR, MA	19	<i>n</i> = 41	0-5	ASD	Meta-analytic findings showed very strong effects for PMI for children aged 3 to 5 years old; effect size = 1.78; "The overall effect sizes suggest that [PMI] were highly effective among children under eight years of age diagnosed with ASD for promoting social interactions." (p. 71); "more effective in younger children [children between 3 and 6 years old]." (p.69-70)

Key: SR = Systematic Review; CWD = Children with Disabilities; PMI = Peer-Mediated Instruction; ASD = Autism Spectrum Disorder; MA = Meta-Analysis; DD = Developmental Delay; ID = Intellectual Disorder; DHH = Deaf/Hard of Hearing; SD = Standard Deviation; CI = Confidence Interval

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