

PEER POWER IN PRACTICE: A SYSTEMATIC REVIEW OF PEER PROGRAMS SUPPORTING INCLUSIVE AND SUPPORTIVE SCHOOL ENVIRONMENTS

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Abstract

In today's multicultural and interconnected societies, as schools and classrooms become more diverse, promoting inclusive attitudes and supportive learning environments is a central challenge for education systems. Present systematic review synthesizes evidence on the effectiveness of peer programs — including mentoring, tutoring, teaching, and peer support initiatives — in enhancing inclusivity within schools. A systematic search was conducted in Web of Science, Scopus, and ERIC for studies published between 2015 and 2024, following PRISMA 2020 guidelines. No review protocol was registered. Fifteen peer-reviewed articles were included based on criteria such as implementation in general education from grade 1 to grade 12 and a clear goal of improving community, social interactions, school climate, students' attitudes, acceptance of differences, or overall inclusivity. Methodological quality was appraised using the Mixed Methods Appraisal Tool (MMAT), with most studies meeting all criteria. Findings demonstrate that peer programs are generally associated with improvements in inclusive attitudes, empathy, and community engagement, contributing to improved school climate and student well-being, while also supporting academic goals. Future research should expand the geographic scope of peer program studies and incorporate longitudinal designs to better understand their sustained impact across diverse educational contexts.

Keywords: *Systematic literature review, peer programs, inclusive education, community development, school inclusion.*

1. Introduction

In culturally diverse and interconnected societies, schools play a central role in promoting inclusion, belonging, and social cohesion. As classrooms become more heterogeneous, educators increasingly rely on peer-led initiatives—such as mentoring, tutoring, and peer support—to strengthen interpersonal relationships and foster acceptance among students (Ainscow, 2016; Lee, Cha, & Ham, 2023; Nicaise, 2013). Previous reviews have examined specific subfields of peer programs, yet many were limited by narrow participant groups (Kuntz & Carter, 2019), older datasets (Bowman-Perrott, Burke, Zhang, & Zaini, 2014; Watts, Bryant, & Carroll, 2018), or single-country contexts (Palomero-Fernández, Cáceres-Iglesias, & Torrego-Egido, 2024). To address these gaps, this review synthesizes recent empirical evidence on how peer programs contribute to inclusive attitudes, social skills, and supportive school climates in general education settings. Our analysis is grounded in theoretical perspectives on inclusive education and peer-mediated learning, emphasizing the role of structured peer interactions and the strong influence of peer norms in shaping students' social attitudes and school climate.

2. Methods

2.1. Search strategy and selection

The systematic search followed PRISMA 2020 guidelines (Page et al., 2021). Studies published between 2015 and 2024 were identified in Web of Science, Scopus, and ERIC using keywords related to peer mentoring, tutoring, teaching, and peer support. In addition to database searches, we conducted a backward citation search by screening the reference lists of relevant reviews to capture studies not retrieved through database queries. After removing duplicates and screening titles, abstracts, and full texts, fifteen

studies met the predefined inclusion criteria. This final set reflects the combined results of the systematic search and citation screening. The criteria focused on empirical research in general education (grades 1–12) explicitly targeting inclusive attitudes, school climate, social interactions, or community development. Although the initial search yielded a large number of records, only studies addressing peer programs with explicit inclusion-related aims were retained.

2.2. Data extraction and synthesis

Data extraction was conducted using a standardized template that defined the main deductive categories, including study characteristics, participant groups, program types, objectives, and outcomes. In parallel, inductive coding allowed additional themes to emerge, ensuring that recurrent patterns were captured beyond the predefined categories. The identification of key factors therefore relied on a combined deductive–inductive coding process, in which structured categories were complemented by emergent themes (Braun & Clarke, 2006). Studies were included if they reported both individual-level outcomes (e.g., social skills, self-esteem) and school- or community-level effects (e.g., climate, peer relationships, inclusivity), while studies focusing solely on individual improvement without broader social implications were excluded. The findings were synthesized using a narrative synthesis approach guided by inductively derived thematic categories (Green, Johnson, & Adams, 2006). Narrative synthesis enabled the systematic organization of evidence in relation to the review’s aims, while thematic analysis highlighted recurrent objectives and outcomes across studies (Braun & Clarke, 2006). Coding was guided directly by the three research questions, and the resulting thematic structure of the Results section reflects this alignment: the analysis first examined how peer programs relate to the development of inclusive attitudes and acceptance among students in general education settings (RQ1), then explored the ways in which peer-led initiatives contribute to a positive school climate and enhance students’ social skills and empathy (RQ2), and finally investigated the perceived benefits and challenges of peer programs in fostering community development within schools (RQ3). This combined analytic approach allowed diverse study designs and outcome measures to be integrated into a coherent descriptive synthesis.

2.3. Quality appraisal

Methodological quality was assessed using the Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018). Each study was evaluated according to its methodological design, and ratings were assigned based on the five MMAT criteria. Fourteen studies met all applicable criteria, and one mixed methods study showed partial fulfillment due to insufficient interpretation of the integrated qualitative and quantitative findings. Although most studies demonstrated strong methodological reporting, typical limitations such as small samples or context-specific designs remain important to consider when interpreting the findings. The MMAT process ensured transparency and comparability across diverse research designs, addressing concerns about risk of bias and strengthening the credibility of the synthesis.

3. Results

3.1. Thematic overview of included studies

Peer mentoring, cross-age tutoring, and structured peer support initiatives were the most frequently implemented approaches across the included studies. Program duration varied considerably, ranging from short-term interventions lasting only a few weeks to year-long initiatives embedded in school routines. Despite this variability, all studies reported outcomes related to inclusion, social skills, empathy, or school climate, indicating a consistent pattern across contexts. Several studies also highlighted that peer-led interactions can strengthen students’ sense of belonging and community engagement, suggesting that peer programs contribute to both individual and school-level social development.

3.2. Inclusive attitudes and acceptance

Across the included studies, peer programs were consistently associated with improvements in inclusive attitudes and acceptance. Several studies reported increased empathy, openness to diversity, and more positive perceptions of peers with different abilities or backgrounds (Alegre Ansuategui & Moliner Miravet, 2017; Asmus et al., 2017; Barahona, Padrón, & Waxman, 2023; Carter et al., 2016; Haft, Chen, LeBlanc, Tencza, & Hoeft, 2019; Martí Ballester & Moliner Miravet, 2015). Programs involving structured interaction with students with disabilities showed particularly strong attitudinal shifts, suggesting that direct peer engagement can reduce social distance and foster appreciation of differences. These findings align with the thematic category of attitudinal change identified during coding and are consistent with broader theoretical perspectives on the role of peer influence in shaping social attitudes. At the same time, some studies relied on small or context-specific samples (Scheef & Buyserie, 2020; Toulia, Strogilos,

& Avramidis, 2023), which may limit the strength and generalizability of attitudinal findings. Overall, the evidence suggests that peer programs contribute to more inclusive and accepting classroom environments.

3.3. School climate, social skills, and empathy

Across the included studies, peer-led initiatives were consistently linked to improvements in school climate and students' socio-emotional competencies. Multiple studies reported gains in communication, cooperation, and conflict-resolution skills, alongside increases in empathy and prosocial behavior (Asmus et al., 2017; Capp, Benbenishty, Astor, & Pineda, 2018; Carvalho & Santos, 2021; Cockerill, Craig, & Thurston, 2018; Thurston et al., 2018; Kondo & Kato, 2023, 2024). Other studies described improvements in social competence and peer interaction quality (Scheef & Buyserie, 2020; Toulia et al., 2023), indicating that peer programs can strengthen interpersonal relationships and contribute to a more collaborative classroom atmosphere. Several studies noted reductions in behavioral issues and increased self-confidence among participants, suggesting stronger student connection to the school community. At the same time, some studies relied on small or context-specific samples (Alegre Ansuategui & Moliner Miravet, 2017; Gvaldaitė, Budreckaitė, & Bučinskienė, 2024; Toulia et al., 2023), which may limit the strength of the evidence for school-climate improvements. These patterns align with the thematic category of socio-emotional development identified during coding.

3.4. Community development and implementation challenges

Peer programs were also associated with broader community-level benefits, including increased student engagement, stronger peer networks, and a heightened sense of responsibility toward others (Barahona et al., 2023; Carvalho & Santos, 2021; Kondo & Kato, 2023; Kondo & Kato, 2024; Thurston et al., 2020). Several studies described how peer helpers or mentors contributed to a more positive school environment by facilitating cooperation, supporting classmates, or participating in community-building activities. Some studies also reported improvements in peer interaction quality and community involvement (Scheef & Buyserie, 2020), suggesting that peer programs can strengthen school-level social cohesion. Challenges were also reported across multiple studies, such as inconsistent implementation, limited mentor training, scheduling difficulties, or declining engagement over time (Capp et al., 2018; Gvaldaitė et al., 2024; Martí Ballester & Moliner Miravet, 2015). Some studies also faced methodological constraints, such as small or demographically unclear samples (Gvaldaitė et al., 2024; Martí Ballester & Moliner Miravet, 2015; Scheef & Buyserie, 2020), which limit the generalizability of community-level findings. In some cases, unequal benefits across student groups or unclear tutor outcomes were noted, highlighting the importance of structured planning and adequate preparation. The challenges identified during coding underscore the need for careful program design to maximize positive impact.

4. Discussion

The findings of this review confirm that peer programs play a meaningful role in strengthening inclusive attitudes, empathy, and social relationships in diverse school settings. Consistent with earlier work on inclusive education, structured peer interactions supported students in developing openness and acceptance toward peers with different abilities or backgrounds (Ainscow, 2016; Booth & Ainscow, 2011). These outcomes align with broader perspectives emphasizing the importance of collaborative learning environments and peer norms in shaping belonging and school climate. Our synthesis highlights substantial variation in program duration, structure, and facilitation, indicating that peer programs are adaptable but not uniform in their implementation. Short-term initiatives tended to produce immediate social benefits, whereas longer-term programs were more likely to influence school climate and community cohesion. This review contributes new insights by offering a contemporary and systematically organized overview of peer programs in general education settings. Unlike earlier reviews that focused on narrow participant groups or relied on older datasets, our analysis incorporates recent studies across diverse student populations and geographic contexts, providing a more current understanding of how peer programs function in today's schools. A further contribution lies in the systematic mapping of program objectives across the included studies, which reveals a wide range of social and attitudinal aims that extend beyond academic outcomes—an aspect often overlooked in previous syntheses (Williams, Chen, & Quirion, 2024). Finally, the review underscores the need for structured mentor training, consistent implementation, and equity-focused monitoring to ensure that peer programs achieve their intended impact. While the overall methodological quality was strong, the diversity of designs and outcome measures highlights the importance of more rigorous, longitudinal, and context-sensitive research to guide sustainable and inclusive educational practice.

5. Limitations

Although this review provides an up-to-date synthesis of peer programs supporting inclusive school environments, several limitations must be acknowledged. Restricting the search to peer-reviewed studies published between 2015 and 2024 in three major databases may have excluded earlier or grey-literature research. Although no language restrictions were applied, few non-English studies met the criteria. Variability in reporting quality—such as missing details on program duration, mentor training, or participant characteristics—reduced comparability across studies. Many included studies relied on small samples, non-randomized designs, self-report measures, and lacked long-term follow-up, limiting the robustness and generalizability of the evidence. The limited number of eligible studies reflects the current scarcity of high-quality empirical research specifically examining inclusion-focused peer programs, rather than a constraint of the review’s methodological scope.

6. Conclusion

Peer programs hold significant potential for fostering inclusive attitudes, empathy, and positive school climates. The findings of this review demonstrate that structured peer interactions can strengthen social relationships and support a more accepting classroom environment across diverse educational contexts. At the same time, the evidence base remains uneven, with considerable variation in study quality, design, and reporting. When carefully planned and supported through mentor training and program fidelity, peer programs can meaningfully contribute to mutual respect and appreciation of diversity—core aims of inclusive and multicultural education. To deepen understanding and strengthen the evidence base, future research should broaden geographic representation, employ longitudinal designs, and examine developmental differences more systematically. Together, these efforts can help schools implement peer programs that are both equitable and sustainable.

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