ONE-TO-ONE CROSS-AGE PEER MENTORING

National Mentoring Resource Center Model Review

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Summary

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This review addresses four topics related to one-on-one cross-age peer mentoring for children and adolescents, including:

1. Its documented effectiveness for mentees and mentors,

2. The extent to which effectiveness depends on characteristics of mentors, mentees, or program practices,

3. Intervening processes likely to link cross-age peer mentoring to youth outcomes, and

4. The success of efforts to reach and engage targeted youth and achieve high quality implementation.

Extending a 2007 MENTOR Research in Action monograph definition of cross-age peer mentoring,[1] which also was used in other literature reviews on cross-age peer mentoring,[2,3] this review sharply differentiates cross-age one-to-one peer mentoring programs from cross-age peer group mentoring, peer-led education or targeted preventative interventions, and peer mentoring as an informal practice within larger programs.

Overall, evidence is beginning to accumulate that supports at least the short-term effectiveness of formal cross-age peer mentoring programs. But this literature is growing at a very slow pace, mainly, it seems, because most of the literature on "peer mentoring," old and new, combines one-to-one cross-age peer mentoring with group peer mentoring programs and peer education led by older youth.

The limited evidence of effectiveness of cross-age peer mentoring, specifically as defined in this review, reveals benefits accrued by both children (mentees) and their teenage mentors. However, benefits to mentors are not the focus of this review. The strongest effects for mentees appear to be increases in school attitudes (e.g., connectedness), relationships with adults (both teachers and parents) and peers, and improvements in internal affective states (e.g., self-esteem).

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The most significant moderators of program effectiveness appear to be the mentors' attitudes and motivations, and the degree of clear programmatic infrastructure and fidelity of its implementation. Involvement of parents in programs also seems to yield larger benefits, and securing support from school administrators and teachers can directly influence effectiveness.

The means by which programs have positive effects on mentees appears to be largely through the consistent and affirming presence of mentors, and the clarity and predictability resulting from a clear program structure. These assist mentors in establishing what Rhodes[4] describes as the building blocks of successful mentoring relationships—empathy, trust, mutuality—despite variability in the maturity and social distractibility of the teenage mentors.

INTRODUCTION

This review examines what we know about the effectiveness of mentoring on youth outcomes when the mentors are not adults, but rather youth who are at least two to three years older than their mentees. We differentiate cross-age peer mentoring from other types of peer-led programs in order to underscore the extent to which mentoring, and not other types of activities, contributes to mentee outcomes. This review draws primarily on evidence from seven published outcome studies that meet a specific definition of cross-age peer mentoring.

It is possible that cross-age peer mentoring is so intuitively appealing because it can fill a void in the natural mentoring of children by older peers, which occurred in schools until the twentieth century. Well into the twentieth century, and until much later in many rural communities, students of all ages were taught by one teacher in the same room. This single-room school setting allowed older youth to interact with, befriend, support, encourage, and serve as role models for the children in their class. When classrooms were stratified by grade, those natural mentoring relationships between children and youth became less common. Today, formal cross-age peer mentoring programs provide one way of restoring this vital developmental experience for children.

Cross-Age Peer Mentoring Defined

A narrow and clearly defined definition of cross-age peer mentoring is essential for a strong scientific foundation for cross-age peer mentoring to develop by making clear distinctions among the different roles that peers can play in each other's lives. The roles of an adult coach, educator, tutor, counselor, mediator, and mentor are well defined, but this is not so for youth-helping-youth relationships. Best known are the *social* roles of classmate, teammate, or friend. Less clear are the distinctions between the multiple helping roles youth play with children. Youth may coach, teach, tutor, and counsel children to resolve specific problems. Or youth can be trained to befriend and interact supportively with younger youth—to mentor. It seems apparent that without clearer definitions, research on cross-age peer mentoring will not advance.

This review restricts the term cross-age peer mentoring to the matching of an older youth (the mentor) with a younger youth (the mentee), in which there is a difference of two or more years in age between mentor and mentee. An age difference likely permits the older youth mentor to fulfill several roles similar to that seen in adult-youth mentoring that same-age peer relationships might not. Being older allows the peer mentor to serve more effectively as a role model, to provide support, and to offer the mentee guidance. Typically, this happens in school or community programs wherein secondary (high school) students are matched with primary or middle school students.

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Teenage mentors' general maturity level necessitates that cross-age peer mentoring programs provide the mentors considerable structure and supervision through the use of planned activities and group interactions.[5] The developmental scaffolding of the mentoring relationship through

the use of mentor-mentee activities that occur within a larger peer group context can make these programs responsive to the teen mentors' own social needs. For example, the little research on cross-age peer mentoring programs enlisting preteen mentors suggests it is less effective than programs involving teenage mentors.[6] This may happen because, developmentally, preteens lack necessary relationship building skills, and even high levels of program structure and supervision may not be enough to scaffold preteens to effectively mentor. These matches may become overly playful or very task- or problem-focused, neither of which allows the mentors to be *both* caring and growth-focused in ways needed to serve as role models, friends, and confidants in the face of challenges.

The second criterion for program and study exclusion was whether the program description provided clear evidence that the mentoring relationship is given primacy over learning the curriculum. Studies in which program descriptions primarily detailed curriculum and gave little evidence of programmatic efforts to foster one-on-one relationships (e.g., in mentor training or designated time for un- or semi-structured interactions between a mentor and mentee) were excluded. At its core, cross-age peer mentoring emphasizes the relationship between mentor and mentee, and thus is differentiated from goal-oriented models or programs with more narrowly prescribed goals, such as improving academic skills (peer tutoring), imparting knowledge or raising awareness (peer education), resolving or preventing interpersonal problems (peer mediation or assistance), or addressing personal problems (peer counseling).[1] Peer mentoring relationships may incorporate such activities or roles temporarily, but are neither prescribed nor prioritized.

Excluded from this review were several studies of programs that restricted evaluation outcomes to the mastery of curricular content. Impressive work[7] using older youth to deliver health education curriculum one-to-one to younger children, for example, was excluded because the program focus and primary outcomes of the study were the mastery of curricular content.

Group peer mentoring programs were excluded from this review. Peer mentoring (in contrast with peer education, mediation, counseling, and tutoring) requires (by definition) developing a close, personal, but also growth-focused relationship. Consequently, most formal peer mentoring programs use a one-to-one model. Some programs use a group format or structure that provides opportunities for relationships to form between the older peer mentors and the mentees in their group. In our review, however, we found no studies of group peer mentoring programs that explicitly described programmatic efforts to cultivate these one-to-one relationships or that attempted to assess the presence or quality of the mentoring relationships in the program. Peer Group Connection,[8] for example, is an impressive intervention, but studies of its effectiveness describe it more as a peer leadership program, rather than a one-to-one peer mentoring program.

Finally, less researched, cross-age peer mentoring can happen informally, such as in summer camps, when a teen's formal role (e.g., as a child's camp counselor) with a child expands to incorporate friendship-like qualities, or informally as in the one-room schoolhouse described earlier. Studies were located of programs in which teens were trained to provide informal support for same-age or younger peers (e.g., to facilitate transitions to a new school). But none of these studies provided evidence of whether any mentoring relationships were formed or prioritized and therefore fall outside the scope of this review.

The Scope of this Review

This review considers only cross-age one-to-one peer mentoring programs that meet the previously mentioned definition[1] and on which relatively rigorous research has been conducted, either experimental or quasi-experimental examinations of outcomes or on practices that may explain these outcomes. For example, the search described below identified several dissertations and published outcome studies of programs that did fit this definition, but lacked rigor, such as those having too few participants, inappropriate comparison groups, or excessively high attrition.

A systematic literature search of the ProQuest, PsycInfo, ERIC, and Google Scholar databases was conducted starting with the terms "peer mentoring" and yielded over 15,000 documents. The search was restricted to all reports available, in any year, in English. Of those, 1,177 were peer reviewed and involved youth, adolescents, children, or teens as mentees. After excluding articles using teachers, adults (mentors 19 years of age and older), and college students as the mentors, 225 articles remained. After eliminating duplicates and applying inclusion/exclusion criteria above, 42 articles, book chapters, and evaluations were retained, but only seven of these studies were deemed of sufficient rigor to provide reliable validity evidence for program outcomes.

To identify populations and practices that explain or moderate program outcomes, the next three sections of this review only consider practices reported in studies of the programs for which reliable outcomes were found. However, to incorporate the wealth of practice expertise and wisdom in the field, the fourth section of the review summarizes the perceptions on the key peer mentoring program practices reported by several hundred program coordinators.

1. What Are the Demonstrated Effects of Cross-Age Peer Mentoring on the Development of Children and Adolescents?

BACKGROUND

This section presents evidence of benefits for children who participate as mentees across three domains. In their 2012 meta-analysis[9], DuBois and colleagues found no differences in the overall effectiveness of peer mentoring programs compared to adult mentoring programs. This equivalence might, but also might not, have been found had their comparison excluded the studies not considered in this review.

RESEARCH

This section presents outcome information from only seven studies of dyadic cross-age peer mentoring outcomes. Each has significant research design or program implementation flaws, but viewed collectively in terms of type of outcomes, they provide considerable corroboration.

Having a large sample size provides one of the best ways to minimize chance findings. There were two large-sample studies of cross-age peer mentoring. The first is the Big Brothers Big Sisters of America's High School Bigs program evaluation.[10] This experimental study had a large sample, rigorous data analyses, and a control group, but the program's implementation varied across settings yielding quasi-experimental estimates of how impacts may differ by conditions and participant characteristics. A second study[11] with an even larger sample size is a secondary data analysis of the

Institute for Educational Science's (IES) study of the Student Mentoring Program.[12] Although mentees were randomly assigned to the treatment (mentoring) or control group in both studies, they were not randomly assigned to have a teen or an adult mentor.

The two randomized, controlled studies of the cross-age peer mentoring called the Cross-Age Mentoring Program (CAMP) were included.[13] Although somewhat statistically underpowered, together they provide corroborating evidence of impact on specific outcomes and information about for whom and under what conditions program effectiveness varies.

Three other studies utilized an alternative treatment or a matched comparison group to estimate variations in changes observed between youth in different program delivery conditions. The outcomes from these studies, which varied across participant groups or program delivery approaches, are included below even though they do not provide experimental evidence of program impact. The first of these used cross-age peer mentoring to prevent delinquency.[14] In this two-year study, multiple ratings of behaviors and attitudes (reported by youth and adults) were compared across two program participation durations (one-semester and one-year [eight months]) and, across three contrasting curriculum delivery approach groups into which youth were randomly assigned. The second study looked at differences in pre-post changes for children matched with high school mentors as part of a Big Brothers Big Sisters agency in Edmonton, Canada (BBBS Edmonton).[15] This study did not include a no-mentoring comparison group. Nor were youth randomly assigned to the different delivery approaches; but the strengths of this study are its attempt to replicate prior findings and test theory-based hypotheses, and its being sufficiently statistically powered to provide reliable estimates of between-condition differences. The final study was of a gang participation prevention program that used a matched comparison group from the community.[16]

Half of the studies that included **misbehavior** and **misconduct** as an outcome variable reported **declines in or lower rates of misconduct and misbehavior after participation** in a **cross-age peer mentoring program**.

Behavioral. Half of the studies that included misbehavior and misconduct as an outcome variable reported declines in or lower rates of misconduct and misbehavior after participation in a cross-age peer mentoring program. The two studies that found reductions were serving youth at risk of engaging in delinquent behavior or entering a gang. Both were statistically underpowered and lacked a randomized control group. The delinquency prevention peer mentoring program found reductions in misbehavior from pre- to post-test that were replicated in both program duration conditions and were observed by multiple reporters. But the comparison groups were two alternate treatment conditions, such that the reductions were found only among youth in matches randomly assigned to focus first on friendship development. For those in this condition and who participated in the shorter program duration, the reductions were still present six months later.[14] In the gang prevention program, which used 12 sessions of interactive violence prevention activities to structure matches' time together, the mentees (n = 25) reported fewer positive attitudes toward violence at post-test than children in the matched comparison group (n = 35). However, outcome tests included only the children who completed a post-survey, which was half of the original participant sample.[16]

Findings from the two large sample studies of school-based mentoring by teens and adults were mixed. The High School Bigs study reported no benefits of having a teenage mentor on misconduct (though there were reductions for mentees who had adult mentors).[10] In the secondary analysis of data from the IES Student Mentoring Program study, those mentees with teenage mentors reported less misconduct at post-test compared to both mentees with adult mentors and the control group students, but the difference was not statistically significant.[11]

Academic. The evidence of improvements in academic skills and attitudes resulting from participation in cross-age peer mentoring was found in one of two large-sample studies (IES), both of the smaller randomized controlled studies (CAMP), and one of the two quasi-experimental studies (BBBS Edmonton). The IES Student Mentoring Program study found improvements in scholastic efficacy but not in grades for children mentored by teens.

The findings regarding the effectiveness of the BBBS High School Bigs program came from contrasting outcomes of adult and teen mentors within a larger study of the effectiveness of school-based mentoring in which nearly half (48 percent) of all mentors were teens.[17] Considered separately, the matches with adults and with High School Bigs (teenage mentors) revealed that the magnitude of the program effects differed for children having an adult mentor versus a teen mentor. Children with teen mentors benefited less (or did not improve at all) on classroom effort, difficulty in class, self-reported GPA, and intentions to go to college. Thus, the improvements originally reported for youth in the larger study[18] on academic behaviors and attitudes held only for children mentored by adults, not those mentored by teens.

 The randomized, small-sample study of the all-day, monthly cross-age peer mentoring program (CAMP), in which interactive academic instruction was provided for part of the day, demonstrated both improvements in spelling achievement scores and connectedness to school.[20] The study of CAMP (implemented after school) found benefits on connectedness to school, but did not include grade or achievement outcomes measures. The BBBS Edmonton study found pre-post increases in teacher-reported academic performance.[15]

Socioemotional well-being and skills/attitudes. The High School Bigs study casts light on the influence of peer mentoring on social outcomes. Mentees of High School Bigs benefitted only on 1 of 30 outcomes (peer/social acceptance), while youth with adult mentors benefitted on 12 outcomes, when compared to the control group. However, children with teen mentors scored higher than adult-mentored children on assertiveness, parent relationship quality, and social acceptance. The BBBS Edmonton study also found improvements over time among mentees on peer acceptance, connectedness to peers, and self-esteem, as did the evaluations of cross-age peer mentoring for youth at risk of delinquency and gang membership.[14,16]

Multiple studies, including the High School Bigs study, have reported increased family connectedness or family life satisfaction among mentees. In the delinquency prevention program, which did not appear to have family engagement events, improvements in family functioning and relationships reported at post-test were also present at the six-month follow-up and in both program durations.[14] Increases in connectedness to parents were observed in both studies of CAMP, in the study of the "nearby" program approach, wherein cross-age peer mentoring sessions were held weekly after school,[19] and in the "faraway" program approach, in which buses delivered mentees one

Saturday a month to the mentors' schools for an all-day mentoring event.[20] Both included biannual or quarterly family events for parents.

CONCLUSIONS

1. Evidence of the effectiveness of peer mentoring programs is very limited, both because there are few studies of programs meeting the criteria for this review and because only seven of these programs had been tested with rigorous research designs.

2. Multiple studies report evidence of increasing connectedness to family and peers, as well as peer acceptance and self-esteem.

3. Consistent evidence was found regarding the benefits of school-based cross-age peer mentoring programs on school connectedness (or related outcomes like school bonding).

4. There is conflicting evidence of cross-age peer mentoring effects on grades, class performance, or achievement, as well as on misbehavior and misconduct.

2. Under What Conditions Does the Effectiveness of One-to-One Cross-Age Peer Mentoring Vary?

BACKGROUND

What is clear from the literature on cross-age peer mentoring is the wide variability in program infrastructure (staff support to mentors, mentor training, and activities) and program participants. Just among the seven studies used in this and the next section to describe conditions under which program effects vary and the pathways by which program effects may operate, the characteristics of the programs, participants and activities varied greatly. To reveal what can be learned about what moderates program impacts, this section highlights several program components and mentor characteristics that seem to influence program effectiveness for only those seven studies previously described for which reliable outcome estimates could be made.

RESEARCH

Group interaction opportunities. The High School Bigs study identified several moderators of program effectiveness. Subsequent reanalysis of the same data has revealed others. A key initial finding is that matches lasted longer when the program included both dyadic mentor-mentee time and participation in a larger group,[10] which may be because this combination of activities helps meet the socialization needs of the teen mentors. However, it should be noted that when matches meet in the context of other matches, the mentees reported less positive relationships with their mentors. Teens may be less easily distracted by their own peers if some time is structured for teen mentors to interact with their own peers.

Minimizing compensation and compulsory participation. In both the High School Bigs[10] and the Big Brothers Big Sisters Edmonton teen mentoring studies,[15] approximately 40 percent of the mentors received course credit or were otherwise required to participate as mentors. In both studies, fewer benefits were found in matches with compensated mentors.

Staff contact, support, and communication. The value of staff support was revealed in the High School Bigs study as well, in that it was positively associated with mentors' views of relationship quality and satisfaction with the program.[21] Yet, providing high levels of staff support (defined as mentors' perception that the program coordinator is available to talk, concerned about their experience, and interested in how the match is going), is especially difficult when many matches are meeting at the same time, and when the program leader also coordinates planned activities.[22] This is the one of the main reasons the Cross-Age Mentoring Program[13] and the revised High School Bigs Demonstration Model[23] involve more experienced mentors as teen leaders to guide activities for the matches. This allows the program coordinator to observe matches, talk with matches, and deal with inevitable crises that arise, such as dealing with an angry parent or bus driver, or helping a student who is in crisis.

Training. Herrera and colleagues found that mentees reported more satisfying relationships when their mentors received more training.[10] However, when Karcher and colleagues examined the contribution of hours of training on match quality,[21] they found that staff support during the match was more directly influential and that additional training affected mentor-mentee relationship quality in large part by influencing the nature of the conversations and activities through which matches chose to engage. They also found that hours of training may be a double-edged sword, in that more hours of training predicted satisfaction with the program, goals, and supervision, but it also was negatively associated with the likelihood mentors would elect to mentor in the future. Therefore, the effect of additional training may be a function of the type of training, as teen mentors felt most positively about the program when they received training on youth and relationship development.

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Help structuring interactions. A discussion of program activities and the use of curricula as a moderator of program effectiveness must start by acknowledging that a primary criterion used for excluding studies from this review was whether the program description assigned significantly more weight or importance to curricular content than to relationship development as the main mechanism of change. Karcher describes how challenging yet important it is to train mentors to be comfortable using curricular activities, while also recognizing when to abandon learning in service of opportunities to deepen the relationship.[24]

Teen mentors seem less able than adults to understand the power of a strong mentor-mentee relationship on their mentees' lives. This is a developmentally appropriate constraint in their thinking.[5] But it explains why reanalysis of the High School Bigs found that, even though relationship-focused and casual conversations predicted stronger relationships, mentors in matches engaging in more of these nondirective conversations viewed the quality of the program less positively.[21] Conversely, teen mentors in matches engaging in more goal-directed conversation and structured activities held more positive views of the program (but did not seem to influence the quality of the relationships). The associations were the opposite of what predicted positive views of the program for adult mentors, suggesting that giving teen mentors guidance in how to structure their time (e.g., using structured or "inert" curricular activities) may be a uniquely important predictor of having a positive experience for teen mentors.

Characteristics of mentees. Many teens are not prepared to develop relationships or even guide the interactions of younger youth. Relatively more mature teens can effectively cultivate relationships with younger children, but even they need consistent staff support, clear program structure, and training to engage in prosocial, positive, and mentee-focused interactions with behaviorally difficulty children. In both the Cross-Age Mentoring Program and the High School Bigs studies, having a more behaviorally difficult mentee predicted lower quality relationships (mentor-reported),[25] inconsistent mentor attendance,[26] and the mentor was less likely to continue in the program.[10, 21] Additionally, not all children may need or benefit from teen mentoring, especially when provided en masse. In the BBBS Edmonton program study, gains over time on several outcomes among mentees were greater when the mentees were identified individually rather than enrolled in whole groups (e.g., a whole classroom).[15]

Characteristics of mentors. Some teens are better suited than others to serve as mentors to children. Although there has been little research on personality characteristics of teen mentors (e.g., outgoingness) and their effect on program outcomes, several studies have looked at attitudinal and motivational characteristics beyond whether or not their participation is compulsory or compensated. Research on BBBS High School Bigs, the BBBS Edmonton program, and CAMP has identified several attitudinal and motivational characteristics of mentors that explain variability in outcomes. These are the positive associations between program outcomes and teen's attitudes toward youth in general and their degree of other-centeredness or social interest. Secondary analyses of the High School Bigs program revealed that teen mentors who reported more positive attitudes toward youth were particularly effective with more academically disconnected mentees (there were negative effects for academically connected mentees matched with teen mentors holding more negative views of youth).[27] Similarly, a social interest scale was included as a screening and training[28] tool in one program because of research linking mentors' social interest to program outcomes.[26, 24] These studies suggest that recruiting a specific type of mentor may be critical to program effectiveness, and that motivation for self-enhancement[25] and compulsory participation[15] may undermine relationship quality.

Parent involvement. Holding family events seems to be important to program outcomes. It has been found to predict greater satisfaction with the match among mentors.[25] The use of these events may explain why increases in mentees' connectedness to parents and family functioning are more common in the cross-age peer than adult-youth mentoring studies.[10, 20, 14]

CONCLUSIONS

1. Teen mentors may need and benefit more than adult mentors from staff support, program structure (e.g., planned activities), and ongoing training.

2. Mentors should not be coerced or lured into mentoring because of the potential negative consequences for the mentees to whom these disinterested mentors are assigned.

3. Mentors who hold more positive attitudes toward youth in their community, who are motivated to help, and who report greater social (rather than self-) interest should be selected.

4. Although parent involvement has not been the specific focus of research in cross-age peer

mentoring programs, evidence exists that engaging parents in these programs through family events may be useful in facilitating improvements in mentees' connectedness to their parents.

3. What Intervening Processes Are Most Important in Linking One-to-One Cross-Age Peer Mentoring to Youth Outcomes?

BACKGROUND

Similar to other mentoring approaches, the interpersonal relationships formed between mentors and mentees have been posited to be the primary link between cross-age peer mentoring and youth outcomes. Whereas mediators of program effectiveness for group mentoring include improvement in relationships with same-age peers as well as the mentoring relationship, the mechanisms of change most commonly presented for cross-age peer mentoring programs are similar to models explaining how adult-youth mentoring relationships influence program outcomes. Most cross-age mentoring logic models resemble or reference Rhodes' model, suggesting the trusting, empathic, and reciprocal relationship with a mentor is what leverages changes in social, cognitive, and identity development. Notwithstanding are the studies under the moniker of "peer mentoring" that describe only the activities inherent in their youth-delivered curriculum that are presumed to influence changes in directly paralleled skill or attitudinal changes, and which lack any reference to the quality of the relationship or to the essential role of the mentoring relationship in achieving program outcomes.[i] In this section, two primary models used to explain the effectiveness of adult-youth mentoring relationships are used to frame research in cross-age peer mentoring programs.

Although an important moderator of program effectiveness for cross-age peer mentoring programs (more than adult-youth mentoring programs) may be the effective use of some organized activities or loosely adhered to curriculum, the nature of how specific curricular focus influences outcomes is a question about the mechanisms of change. Consider the phenomenon reported earlier in which teens reported stronger relationships but viewed the program less positively when they engaged in more casual, verbal interactions. Clearly the degree of program structure (i.e., the provision of activities, clarity of program goals and focus on relationship, and availability of staff to guide matches) influences program effectiveness, but it is the experience of these interactions that explains when and how positive relationships form and effect better program outcomes. This section describes research on how activity type and activity decision-making seem to contribute to influence program outcomes.

One framework[29] that is useful for understanding how mentoring interactions influence program outcomes contrasts two approaches found in the adult mentoring literature. In that framework, the approach that focuses first on befriending the mentee (the developmental style) was found most helpful with younger mentees, and the more goal-directed (instrumental) style more consistent with the expectations and needs of teenage mentees. For this reason, the Cross-Age Mentoring Program

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i Furthermore, "peer mentoring" studies of programs utilizing both a heavily curricular focus in which 1 or 2 youth teach groups of 10 to 12 "mentees" commonly proffer that the program influences outcomes by influencing relationships among peers more so than by the formation of close mentor-mentee relationships. This may be, in part, because the formation of strong dyadic mentor-mentee relationships is viewed as less frequently occurring at the same degree of intensity in group mentoring as in one-to-one mentoring (see Kuperminc's Group Mentoring NMRC review). The mentor-mentee relationship becomes an additional process contributing to positive program outcomes in cross-age peer-group mentoring, rather than the primary, necessary and sufficient mechanism of change as in one-to-one cross-age peer mentoring.

is structured to provide the developmental style of mentoring, in which more relational structured activities are used to guide match development before shifting to activities related more to school and social skills building activities. This is consistent with the view[4] that trusting and empathic relationships are the nexus of effective mentoring relationships.

RESEARCH

Program interaction approach. To test the benefit of this developmental approach, one study contrasted it against two other approaches (or alternative treatments).[14] One reversed the order of activities to start with skill and goal-focused activities. The second used delinquency prevention activities throughout. They observed the positive changes among mentees after peer mentoring described earlier, but only in the program formats that started the program with relationship-building activities and later progressed to more structured, goal-directed activities. Research on BBBS of Canada's teen mentoring programs found that the least goal-directed approach yielded the most positive changes over time.[15]

Collaborative decision-making. The second element of the activities framework introduced earlier is the hypothesis that the degree of collaboration that occurs in matches is directly proportional to the magnitude of program outcomes. The process of joint ownership, of collaborating in making decisions about what to do, allows reciprocal, back-and-forth negotiations to take place; expressions of empathy; and the formation of trust. Yet, if cross-age peer mentoring programs must help teens structure their interactions, then the use of a pre-planned, nonnegotiable set of curricular activities may pose a problem. It reflects the staff unilaterally imposing or providing a structure rather than the participants having co-ownership of what they do. Of course, matches also could be relatively unstructured and still dominated by one participant, and thereby not reciprocal or mutually agreed upon or negotiated.

In **collaborative matches**, the more "developmental" approach took place. The matches spent more time **talking about friends and family**, and **played more sports and indoor games**. The mentors reported **higher relationship quality**, **felt more efficacious as mentors**, and saw their **mentees asking for their help** more frequently. The mentees were more **engaged**, **satisfied**, and **happy**, and perceived the mentor to be **more youth centered**.

To test this hypothesis about the need for mutuality, reciprocal negotiation, and collaboration, secondary analyses of the High School Bigs study data were conducted that contrasted the ways in which decisions about what to do were made.[30] Based on mentors' reports, match activities were determined primarily by staff, decided by either the mentor or mentee, or negotiated ("decided together"). The focus of these analyses was not only to see if one decision-making approach was superior, but also to see what types of interactions took place when matches decided together. Did their feelings about the relationships differ accordingly?

What the researchers found was that in collaborative matches, the more "developmental" approach took place.[30] The matches spent more time talking about friends and family, and played more sports

and indoor games. The mentors reported *higher relationship quality*, felt more efficacious as mentors, and saw their mentees asking for their help more frequently. The mentees were *more engaged, satisfied, and happy*, and perceived the mentor to be more *youth centered*.

Unilateral decision-making predicted fewer positive experiences.[30] When Littles chose, they avoided goal-directed activities, while when Bigs chose they avoided more relational, playful activities. In both cases, the mentors and mentees found their matches less satisfying, engaging, and purposeful. When staff determined what matches would do, neither the mentor nor the mentee experienced the match positively. Overall, collaborative matches were most successful. The takeaway is that although having some prescribed curricular activities seems important to frame the relationship, the program structures in which mentoring really happens—where both participants feel engaged, the mentees feel safe to ask for support, and the mentors feel confident and valued—flex to the unique needs and experiences of the match. This adds a level of complexity to program development, coordination, mentor training, and delivery.

These findings suggest the mechanisms of change in cross-age peer mentoring seem not unlike what research shows affords positive outcomes from adult-youth mentoring. The conditions in which the relationships develop, however, and specifically the nature of the structured support needed by teenage mentors, differs from that of adults. But too much structure, which is too rigidly adhered to, can cripple a match's development and should not be considered peer mentoring. Program structure is just that—a structure which can hold the relationships and allow them to grow. Like a plant in a pot, program structure is a container in which the relationship can develop in its own way. Structuring this balance is not easy, however.

CONCLUSIONS

1. Establishing a relationship first seems critical to generating the experiential building blocks of a mentoring relationship—empathy, trust, mutuality, and reciprocity.

2. For teenage mentors, more structure is typically needed to create the conditions for befriending to occur between cross-age peers.

3. Some guidance and activity advice ("interaction structure") may be needed for mentors to feel competent and efficacious, but too much could feel stifling and deflating to the youth.

4. Teenage mentors may need help to become flexibly reliant on prescribed or curricular activities, and require training in how to grow the relationship by strategically diverting into personal discussions instead of the provided task.

4. Have One-to-One Cross-Age Peer Mentoring Programs and Supports Reached and Engaged Targeted Youth and Been Implemented with High Quality?

BACKGROUND

Beyond the moderating factors described above and the mediating role of mentoring interactions described earlier, little is known about what is unique to setting up a sustainable, efficacious cross-age peer mentoring program other than what can be gleaned by comparing programs with varying levels of best practices in terms of their relative effectiveness. Yet even this is not easy to do because of the dearth of rigorous studies that would allow true comparisons across programs and the tendency to not measure the specific contributions of their practices.

Two anecdotes shed some light on the need for attention to what is missing in most cross-age peer mentoring programs. When the developer of the Cross-Age Mentoring Program worked with Michael Garringer and others at Education Northwest to package the program for dissemination,[24] it took two years to supplement the materials used in those studies with planning guides, forms, and other procedural descriptions necessary to allow it to be replicated with fidelity in other contexts, such as in studies by independent researchers and by practitioners[14, 7] in more than two dozen other school contexts.[31] A second example is how the Big Brothers Big Sisters of America organization took the findings from the High School Bigs program to redesign it. Seeing the effects of this program only evident under some of the conditions described earlier, they developed a revised model,[23] which may now be ready for an effectiveness study.

RESEARCH

To expand beyond what can be learned from the study of practices reported in outcome research, this section presents findings from a Delphi study including interviews with thirteen experts in the field of cross-age peer mentoring and survey data from 623 program coordinators.[32] All participants, through interview and survey questions were asked what strategies effectively are most essential and pose the greatest challenges to the successful implementation delivery of cross-age peer mentoring programs. Their responses revealed four primary categories pertaining to the quality of the program coordinator; recruitment and preparation of mentors, support from school administration, and the need for program structure. The findings provide a unique, high-level (not specific to any one program) look at the challenges and strategies for overcoming barriers to successful program implementation.

Program coordinators.

Challenges. One of the biggest challenges the experts referenced was "selecting unsuccessful program coordinators." This occurred particularly in instances when coordinators did not express prior interest in leading a program but were instead assigned by a district office or school administrator. In these instances, coordinators were depicted as lacking the necessary motivation and sufficient time to focus on the many implementation logistics or match supervision. Turnover of program coordinators was also identified as a noteworthy challenge.

Solutions. In describing the characteristics of quality adult leaders, experts discussed the importance

of coordinators' commitment level, organizational and communication skills, approachability, and experience with that or similar programs. To compensate for a leader not having some of these qualities, several experts suggested creating stakeholder teams (comprised of administrators, faculty, counselors, etc.) to oversee some aspects of the program and serve as an advisory board. Those individuals also retain institutional knowledge that is critically important when there are changes in program coordinators or school administrators. Similarly, having a backup or co-coordinator also helps when a primary coordinator leaves the program.

Recruiting reliable program peer mentors.

Challenges. Competition for students' interest can dilute the applicant pool and/or weaken the commitment level of student mentors. Experts also warned against administrators forcing program coordinators to pick students for ulterior motives, even when those motives are benevolent, such as desiring a growth opportunity for a potential student leader. Many respondents felt that when students were not intrinsically motivated or fully aware of the demands of the program, mentors' poor attendance and high attrition negatively affected both the program and mentees.

Solutions. Experts and coordinators emphasized the need for multiple promotional meetings to explain the program and its expectations to potential mentors. At these events, current mentors could answer questions based on their own experiences. Many coordinators also recommended advertising the program in classes, at assemblies, and through flyers and social media.

> It is important to **select empathetic peer mentors** who are **motivated to help others** (e.g., high in social interest) and who have the **time and ability to work closely with both peers and adults**. Use teacher and current peer mentor **references** in addition to **interviews** and **behavior checks**.

In terms of the selection process, experts described the importance of selecting empathetic peer mentors who are motivated to help others (e.g., high in social interest[26]) and who have the time and ability to work closely with both peers and adults. They recommended using teacher and current peer mentor references in addition to interviews and behavior checks.

Experts also emphasized the value of selecting a pool of students who mirror the mentee population in terms of background, interests, activities, academic records, personalities, and personal experiences. They felt this builds a sense of credibility among potential mentees and helps them feel connected with at least some of the mentors.

Student training and preparing for the worst.

Challenges. Experts noted that programs providing poor or insufficient mentor training could negatively affect mentees. To address this potential, both experts and coordinators suggested a mandatory, multiday intensive training retreat at the beginning of the program along with ongoing training in necessary skills such as active listening and perspective taking, ethical conduct, confidentiality, and cultural factors. A somewhat unique perspective raised by many program coordinators in this study was the need to prepare mentors and administrators alike for what could go wrong.

Solutions. Prior to program launch, administrators and program coordinators should discuss how they want to handle the mistakes student leaders will inevitably make, such as when mentors do not follow through on their responsibilities. Experts and coordinators recommend creating some form of contract or code of ethics to clarify the frequency of absences that will be tolerated, and ensure all mentors receive training in these standards.

Importance of program structure.

Challenges. Experts and coordinators described challenges with structuring consistent meeting times between mentors and mentees, and between program coordinators and mentors. They also emphasized an essential balance of structuring a curricular plan while still flexibly responding to match-specific needs and to relationship development more generally. Several described their curricula as at times feeling "scripted," and the importance of adapting it to the needs of individual communities or matches.

Solutions. Experts discussed the importance of empowering teens to help create their own curriculum. Encouraging students to take ownership over portions of curriculum development was described as fostering responsibility and addressing local needs so that match activities do not feel "imposed from outside." As one example of this from the research literature, the *Cross-Age Mentoring Program: Connectedness Curriculum* gives detailed instructions about creating a curriculum for one's specific program that is consistent with the program logic model.[33]

Ultimately it is important to note that the points made above, and on which the conclusions below are based, are derived from interviews and surveys from experts and program coordinators, but not from research on program practices that were specifically found to influence program outcomes. In addition, it is not clear how many of the 623 program coordinators who responded to the survey ran programs that align with the definition of cross-age peer mentoring used in this review. The following recommendations draw on considerable clinical wisdom and direct attention to practices that may be very important and provide hypotheses which subsequent research may be able to test empirically. Further, the degree to which such practices are implemented with fidelity—consistently, completely, over time—is critical and depends on documentation of program procedures and checklists used to ensure implementation fidelity. Only one of the seven programs in this review has made its implementation and fidelity checklists publicly available.[33]

CONCLUSIONS

1. Staffing is critical to successful program implementation and sustainability. Effective coordinators are interested in leading the program, are well trained, possess the necessary organizational and leadership skills, and are effective at securing the resources they need.

2. Program coordinators (in many ways like peer mentors) need support, co-coordinators, and an active advisory board involved in program operations. They should also work continuously to secure and maintain buy-in from school administrations.

3. Teen mentors, like all mentors, need extensive initial and sufficient ongoing training. This should include information on program parameters and training on all the necessary skills to be an effective mentor. Training for teen mentors should also prepare them for responding to

potential worst-case scenarios. Similarly, administrators and coordinators should develop a response protocol for those occasions in which mentors make mistakes.

4. When choosing program curriculum or other activities to organize the matches, be sure relationship development can be prioritized, and consider allowing students to guide activity development to make curricula relevant to local needs.

IMPLICATIONS FOR PRACTICE
(Mike Garringer, MENTOR: The National Mentoring Partnership)

While the evidence on the effectiveness and mechanisms of cross-age peer mentoring as defined in this review is fairly limited, there is still a lot we can learn here about how to design, structure, staff, and lead a cross-age peer mentoring program from the research we do have. Like all good "evidence-based" practice, these tips for practitioners represent a blend of findings from rigorous research and the invaluable insights of those that have run programs of this type (from the Delphi study[32] of those 623 program coordinators) and learned many lessons about what facilitates success (or perhaps what dooms a program to ongoing struggles).

In considering the evidence presented in this review, there are four main principles that we would encourage mentoring programs to follow. These are applicable to both existing efforts that want to improve services and brand new start-up efforts, which can bake these principles and philosophies into the program from an early stage.

1. **LAY A STRONG FOUNDATION FOR THE PROGRAM BY SELECTING THE RIGHT COORDINATORS AND THE RIGHT MENTORS.**

    The review notes in several places that having the right person, or people, leading the program is critical to its success. While that seems like an obvious truism, the reality is that peer mentoring programs are often led by a teacher or other school staff member for whom running the program was presented as a required task, not a labor of love. Such individuals may not have the requisite enthusiasm to champion the program, engage administrators, lobby for access to school or budget resources, engage parents and mentors, and set a tone of positive support. The study noted in the review stressed the need to have someone in this lead role with the proper organizational skills and the drive to make the program succeed.

    If a school or program finds that one individual hard to come by, one strategy noted in the review is to manage the program through a "stakeholder team" that can distribute some of the tasks associated with the program, bring institutional knowledge and access, and serve as a back-up when one supervisor of matches is not available for some reason. This can also help build deeper buy-in for the program by bringing more champions to the table. Any mentoring program is only as good as its coordinator, but peer programs seem to be especially susceptible to the negative impact of insufficient leadership.

    Closely tied to the leadership of the program is ensuring that the mentors themselves are also the right individuals to do the task at hand. Research cited in this review emphasized the

need to create a diverse pool of peer mentors that reflects the general makeup of the school or community. Often, peer programs overemphasize recruiting students who are considered leaders in the school or who are generally "popular" and engaging. But these students are often pressed for time, might not have enthusiasm for adding another task to their plate, and may be too homogenous to bring the level of diversity and difference needed to properly serve as a role model for diverse mentees.

The review also cautions against incentivizing the mentor role through course credits or other rewards, especially if those incentives can be earned before the matches are set to close. Ideally, programs would want to engage mentors who want to serve in this role primarily for legitimate reasons of caring and altruism, rather than those that are only motivated by the incentive or "prize" offered by the program. So think carefully about which students or older youth would mirror the diversity of your mentees and would bring the proper motivation and skills as mentors.

2. SELECT THE RIGHT MATCH ACTIVITIES TO SCAFFOLD RELATIONSHIP BUILDING.

Peer mentoring programs often conflate the program activities with the purpose and value of the program as a whole. In fact, many such programs were excluded from this review due to the lack of clarity in the studies on those programs about the role that mentoring played in the program. Because older youth and their mentees need something to do together when they meet, and because just having discussions about life in general as well as sensitive topics can be challenging to mentors *who are young people themselves*, it can be tempting for program staff to stuff the program full of games and skill-building exercises and homework help and a thousand other activities so that matches are always "on the go" and doing some task. While this may make it seem like matches are busy and working on things, this approach tends to substitute activity for action and somewhat misses the point of peer mentoring, which is the relationship itself.

The review notes that while activities can be purposeful in nature and focused on some aspect of the youths' development or skill-building, programs also need to provide opportunities to be relational *within* activities. That is, they must provide opportunities for the mentor and mentee to work collaboratively, share perspectives and engage in discussion, build trust and mutuality, and enjoy being with each other. This can be a difficult balance to achieve, especially for programs that have promised administrators or funders big impacts on key areas of interest (grades, student behavior, etc.) as a result of the mentoring.

But as the review authors note, a program that provides too much structure, and activities that overly restrict the mentor-mentee pairs' interactions, is almost doomed to fail if the goal is primarily teaching information or learning specific skills. They note that all activities must be designed to help participants feel engaged with one another, help mentees feel safe and supported, and let the older mentors feel valued and confident in what they are doing. So regardless of the adult-defined outcomes of a peer mentoring program, chances are that a review of the program's match activities, with an eye on whether they build or restrict

relationship growth, will likely result in developing stronger matches and better results. So, make sure your peer mentoring program actually has an emphasis on mentoring!

The review authors also note a related concern around activities that is often overlooked in programs: when a pair should deviate from an activity. As they note, forcing matches to stick it out through tasks or activities that are not working for one or both of the participants is unlikely to yield anything positive. Mentors should be empowered to break away from an activity if their mentees are feeling frustrated or have some other issue going on that is preventing them from engaging in the activity. Peer mentors should be trained on how and when to pause an activity and how to involve the supervising adults in getting them back on track or providing additional support to a mentee that is struggling to participate for some reason. Teen mentors shouldn't be left on their own to navigate complicated situations or work with a mentee in crisis. Having a program coordinator positioned to provide support when an activity goes awry or when a mentor or mentee is struggling relationally is really important to the success of cross-age peer programs like the ones emphasized in this review.

> **Teen mentors shouldn't be left on their own to navigate complicated situations** or work with a mentee in crisis. Having a **program coordinator** positioned to **provide support** when an activity goes awry or when a mentor or mentee is **struggling relationally** is really important to the **success of cross-age peer programs**.

3. **PROVIDE LOTS OF TRAINING AND SUPERVISION TO PEER MENTORS.**

Regardless of the activities that you ultimately select for the program, peer mentors will need to be trained on not only how to do the activity, but also how to be *relational* while doing it. As adults, we often have considerable experience in interacting with unfamiliar people and building rapport in myriad of social situations and settings. Those things do not come easily or naturally to most teenagers, including those in a mentoring role for a younger child. Spend time training peer mentors to engage fully with their mentees, to stay on task (teens are easily distracted), and to prepare for all of the things that could go wrong during a particular activity (or in general in the relationship). The review notes that peer mentors can often feel unsupported or frustrated if their mentee is not engaging with them or if an activity isn't going as planned. Once again, adequate supervision by a coordinator or other supportive adult can be critical in mitigating this frustration, but mentors should also be trained on strategies for handling such situations on their own if that adult support isn't immediately available.

One of the many delicate balancing acts that adults in these programs must do, is to not be too assertive into these relationships, while also being an asset when they do experience challenges. If adults are too directive or controlling of what is happening between mentors and mentees, the youth participants don't get a chance to bond and build the relational skills that are the driving force behind personal growth in these programs. On the other hand, if matches are under-supervised, it can lead to a host of problems: frustrated mentors, mentees who stop engaging, and even negative role modeling in situations where the mentors start

interacting with each other (often in inappropriate ways) instead of with their mentees. If your program has a stakeholder team, spend some time discussing how to be an asset to matches while resisting the urge to step in and simply "run things."

4. LET THE YOUTH LEAD AS MUCH AS POSSIBLE.

Most cross-age peer mentoring programs will get developed because of adult needs and desires—improved grades, better attendance, increased positive behaviors and a less disruptive school climate, improved attitudes about school, and so on. But while those motivations may lead to the initial development of a program, a strong peer mentoring model will eventually allow the young people themselves to plan, develop, and implement the program over time as much as possible. Although this is only touched on briefly in the review, successful peer mentoring programs like CAMP[33] let the young people themselves adapt and improve the program over time.

Programs that want to increase youth leadership in the implementation and growth of the model should provide opportunities for:

- Former mentees in the program to join later as mentors. Having been on the other side of the relationship gives them a unique perspective and understanding of how to be successful in the mentor role.

- Mentors to change and adapt the activity curriculum from year to year. No one is probably more aware of which activities worked best (or did not) and how they were best presented than the mentors themselves. Give them the chance to refine the curriculum at the end of every year and truly make the program something that they "own" and pass on to future classes. This is also a great way to make the program responsive to issues in the school or program setting that adults may be unaware of, but that the young people themselves feel need to be addressed.

- Former mentors to recruit the next class of mentors. As noted in the review, former mentors can be tremendous assets in recruiting the next batch and helping to get a diverse and representative pool of qualified and motivated mentors for the next year.

RECOMMENDED READING AND RESOURCES

The National Mentoring Resource Center (NMRC) website offers a few guidebooks and resources that will be helpful to those managing a cross-age peer mentoring program:

- Peer Mentoring Handbook

- Supporting Students on the Autism Spectrum: Student Mentor Guidelines

- Key topic page: Peer Mentoring

- Webinar: Peer Mentoring: A Discussion with Experienced Practitioners

- Blog post: School-Based Peer Mentoring: A Powerful Tool to Help Close the Mentoring Gap

Other online resources on peer mentoring

- Building Effective Peer Mentoring Programs in Schools: An Introductory Guide

- The ABC of Peer Mentoring – What Secondary Students Have to Say About Cross-Age Peer Mentoring

- Peer Mentoring: An Effective Vehicle for Promoting Healthy Behaviors

- High School Mentors In Brief: Findings from the Big Brothers Big Sisters School-Based Mentoring Impact Study

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TABLE 1: CROSS-AGE PEER MENTORING PROGRAMS

Program			Evaluation	
Name	**Structure**	**Processes/Activities**	**Methodology**	**Findings**
Big Brothers Big Sisters of America, High School Bigs study (Herrera et al., 2008)	**Goal:** Provide one-to-one mentoring to children in a school-based context. **Setting:** School-based mentoring program (various schools). **Duration:** School year. **Mentors:** High school student mentors recruited, trained, and supported by local BBBS agencies. Nearly half were high school juniors; a quarter were sophomores. Seventy-nine percent were female. Nearly 40% received class credit for mentoring. Forty seven percent reported having mentored a child informally (and 18% formally) in the past. **Mentees:** Youth referred to BBBS program. More than 75% were elementary aged students. Fifty percent matched their mentees' ethnic background.	• Volunteer mentors met with students at their school for approximately one hour per week during or after school (4.8 meetings). • A majority of the teen mentors met with their mentees alongside their teenage peers in a class setting. • "Their interactions typically focus on a range of social and academic activities" (Herrera et al., 2008, p. 2).	• Youth randomly assigned to be matched with a BBBS mentor or serve in wait list control group. • Assessments at start of program in fall of school year (baseline), at end of school year (post-test), and in late fall of subsequent school year (follow-up). • Outcome measures included teacher and youth assessments of academic, behavioral, and socioemotional functioning.	Compared with their non-mentored peers, youth matched with a high school mentor improved only on the measure of teacher-reported social acceptance. In contrast, youth matched with adult mentors showed improvement compared to non-mentored youth on 8 of the 17 teacher-reported outcomes and 4 of the 12 youth-reported outcomes. Several aspects of program support contributed to the benefits of having a teenage mentor, namely training (amount and quality) and staff support (perceived quality and frequency of communication). High school mentors who received two hours or more of training had longer-lasting matches (at the follow-up assessment) and reported having higher-quality and closer relationships with their mentees at both follow-up periods. Their mentees reported greater youth-centeredness, emotional engagement, and closeness in their relationships. High school mentors who reported higher quality support from program staff and more frequent communication with staff reported stronger and closer relationships. In addition, higher quality staff support was associated with longer match length.

Program			Evaluation	
Name	**Structure**	**Processes/Activities**	**Methodology**	**Findings**
Secondary analysis of data from the U.S. Department of Education's Student Mentoring Program study (Hwang, 2015)	**Goal:** Goal: Provide school-based mentoring to students identified as being at risk for academic underachievement. **Setting:** School-based mentoring programs. **Duration:** School year. **Mentors:** Volunteer mentors recruited by the program sites. Of the mentors in the present study, 26% were 18 years of age or younger. **Mentees:** Students in fourth through eighth grades.	• For the whole sample of youth who were mentored, either by an adult or a teen, the average length of the matches was just under six months and there was an average of 4.4 hours of face-to-face contact a month. • "While specific mentoring activities are not mandated in the legislation, the program purpose description states that supported activities are those designed to: improve interpersonal relationships with peers, teachers, other adults, and family members; increase personal responsibility and community involvement; discourage drug and alcohol use, use of weapons, and other delinquency involvement; reduce dropout rates; and improve academic achievement" (Bernstein, Rappaport, Olsho, Hunt, & Levin, 2009, p. xv).	• Subgroup analysis were conducted comparing mentees who had an adult, teen, or no mentor to the control group using data from a study of the U.S. Department of Education mentoring study (Bernstein, et al., 2009). That study involved 32 programs in which 2,573 children in fourth through eighth grades were randomly assigned to receive a mentor or to serve in a control condition. • Analyses compared the 220 children with a teenage mentor to the 630 children with an adult mentor, the 389 children in the experimental condition but who received no mentor, and the 1,300 children in the control group. • Three outcomes were assessed at pre and post-test: Scholastic efficacy, overall GPA, and problem behaviors. • Outcomes were assessed in the fall of the school year and in the spring of the end of the school year (92% of children completed both assessments).	Students with a teenage mentor reported more scholastic efficacy than students in the control group at post-test. Compared to the control group, students with a teenage mentor reported engaging in fewer problem behaviors, but this relationship did not reach statistical significance, and there was no effect on GPA. No differences were found in the effects of mentoring on mentees when comparing teen and adult mentored students.

Program			Evaluation	
Name	**Structure**	**Processes/Activities**	**Methodology**	**Findings**
Cross-Age Mentoring Program (CAMP) Cross-Campus Model (Karcher, 2005)	*Goal:* Provide supportive relationship with older youth mentor. *Setting:* Rural school. *Duration:* Weekly for one academic year plus a two-week summer enrichment program. *Mentors:* Volunteer high school students. *Mentees:* Middle school students (fourth and fifth grades).	• Typically, meetings take place weekly for two hours after school; for three hours at monthly Saturday events with parents; and for an all-day, two-week summer day camp at the school campus. • In this study (Karcher, 2005), the mentoring meetings took place twice weekly (48 total meetings) and one Saturday a month (6 SuperSaturday events) with parents, for a total of 144 contact hours. • Program also includes an intensive two-week summer enrichment program. • **Meetings include four parts:** 1. A whole-group icebreaker activity; 2. One-to-one informal conversation and discussion time; 3. A structured dyadic activity from a Connectedness Curriculum; and 4. Short unstructured time to interact in the larger group with others. • **The Connectedness Curriculum includes 35 activities that focus on:** o Promoting connectedness to self, school, teachers, parents, and the future; o Reading skills; and o Interpersonal negotiation skills. • Mentors receive training prior to being matched with mentees and receive ongoing training on curricular activities and mentoring skills twice monthly over lunch.	• Pre-post randomized experimental design with small sample ($n = 33$ assigned to mentoring group, $n = 40$ to control). • Youth were surveyed at baseline and six months after the start of the mentoring program (post-test) but before participation in the summer program. • Assessments at pre- and post-test included student self-reported connectedness, self-esteem, and social skills. • Attendance of mentors and mentees at after-school meetings was recorded. • Intent-to-treat analyses included all students who had complete pre- and post-test surveys ($n = 24$ mentoring group, $n = 30$ control group). • Post-test mean score differences on outcome measures (holding constant starting scores on outcome measures and child characteristics) were compared across intervention and comparison groups. • Additional analyses examined changes on intermediate outcomes of self-esteem and social skills, as well as program attendance rates of mentees and mentors to explain changes in connectedness to school.	Findings indicated that mentored youth reported higher scores on connectedness to school and parents at post-test than the control group. Mentor attendance, but not mentee attendance, was positively associated with pre-to-post changes in mentees' self-reported rule compliance, social skills, and self-esteem, suggesting exposure to the curriculum (i.e., mentee attendance) was less predictive of program changes than was the mentor's presence.

Program			Evaluation	
Name	**Structure**	**Processes/Activities**	**Methodology**	**Findings**
Cross-Age Mentoring Program (CAMP) Outreach Model (Karcher, 2008; Karcher, Davis, & Powell, 2002)	**Goal:** Provide supportive relationship with older youth mentor. **Setting:** Boarding school outside a major metropolitan area. **Duration:** Monthly Saturday events for a full academic year plus summer enrichment program. **Mentors:** Volunteer high school students. **Mentees:** Elementary and middle school students.	• Mentors and mentees from different school districts met at the boarding school campus one Saturday per month for the full day with parent participation encouraged at events. • Program also includes an intensive two-week summer enrichment program on the boarding school campus. • Meetings are structured with a variety of activities of the following types: o Academic skills development activities; o Connectedness activities; and o Unstructured time to interact with others. • Mentors received two days of training prior to being matched with mentees and then monthly one-hour group supervision and training.	• Thirty fifth-grade students from an inner city public school were randomly assigned to the intervention group and control group. Two students from each group left the study before the post-test resulting in a sample of 26 participants in the treatment ($n = 13$) and control groups ($n = 13$). • Youth were surveyed in the spring of the school year prior to group assignment (pre-test) and again the following spring, one year later (post-test). • Assessments at pre- and post-test included student ratings of connectedness (Hemingway: Measure of Pre-Adolescent Connectedness) and a small group assessment of math and spelling achievement (Wide Range Achievement Test). • Due to group differences at baseline on two measures and the small sample, outcome analyses included only spelling achievement scores and connectedness to school, future, and parents.	At one year (post-test) the mentored youth reported higher scores on connectedness to parents and spelling achievement. Gains in school and future connectedness were greater for the mentored youth but did not reach statistical significance ($p < .10$). To understand how the program effected achievement gains, mediator analyses were conducted. Analyses revealed that improvements in spelling achievement were fully explained by gains in connectedness to parents, suggesting that academic benefits from program participation were largely due to gains in connectedness to parents that resulted from program participation.

Program			Evaluation	
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Untitled (Sar & Sterrett, 2014)	**Goals:** Reduce negative behaviors associated with delinquency risk and improve school performance among at-risk middle school students. **Setting:** Three middle schools. **Duration:** There were two cohorts: One semester (four months) in first school year, two semesters (eight months) in following school year. **Mentors:** High school students (juniors and seniors) who volunteered and met program criteria (e.g., good academic standing) and had been screened by school personnel and deemed as having leadership skills and mentoring potential. **Mentees:** Middle school students (sixth grade) identified as having at least one risk factor for delinquency.	• Mentoring program at each participating school was intended to create one of three types of mentoring approaches reported to be effective in the youth mentoring literature: o ***Relational approach***, in which mentoring focused first on relationship development through activities on topics of self, friends, reading, peers, teacher, and culture, with more goal-directed interactions later in the match. o ***Instrumental approach***, in which the mentoring started with a goal-directed focus and then moved to more relational topics over time. o ***Risk reduction approach***, which involved programming and curricular activities designed specifically to address and thereby lesson risk factors for delinquency.	• Longitudinal quasi-experimental design with data collected at baseline, at the end of the program (after four months in the first participation duration; after eight months in the other), and then again at a six-month follow-up. • Mentees completed measures of school performance, behavior problems, family functioning, connectedness, self-esteem, and engagement in delinquency behaviors as well as ratings of their experience with their mentor and the mentoring program. • Mentees' family members rated satisfaction with the mentoring relationship and mentoring program. • Mentors rated their satisfaction with training, the mentoring experience, and the mentoring program. • Teachers rated the mentees' behavior problems and connectedness.	Youth and teachers reported reductions in problem behavior from pre-test to post-test, but this change was only significant for the relational mentoring condition. At the six-month follow-up period, youth in the relational mentoring program reported higher family well-being/functioning scores, greater family life satisfaction, and greater satisfaction in their relationships with their mothers.

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Big Brothers Big Sisters of Canada, Edmonton agency study (Cavell et al., 2017)	**Goals:** Varying by the program types, the goals were either to: • Provide a supportive relationship; • Promote peer relationships; or • Help mentees academically. **Setting:** School. **Duration:** Within one academic year (approximately six months). **Mentors:** 253 high school student mentors (52% in tenth grade; 65% female). **Mentees:** 253 elementary school student mentees (66% in fifth or sixth grade; 61% female).	• Mentoring programs were grouped into three types: o One approach used voluntary mentors paired with children referred individually by teachers. This approach had limited goals beyond providing supportive relationships. o A second approach paired voluntary teenage mentors with students from a class in which all students received mentoring. This approach had an explicit goal of promoting peer relationships. o A third approach involved teenagers whose mentoring fulfilled their community service commitment for a class and mentees who were referred as part of an entire of students class being mentored, and which focused on academics.	• Secondary analysis of data from an evaluation of multiple high school mentoring programs operated by a single BBBS agency in Canada; focused on comparing the three approaches to on-to-one cross-age peer mentoring in six programs. • Pre-post, no control group design, assessing changes for individuals from pre-test to post-test on outcomes. • Both teachers and youth reported on outcome measures of academic and socioemotional functioning. • Differences from pre- to post-test outcomes were compared across the three recruitment approaches.	As a whole, mentees self-reported significantly higher ratings of self-worth and social competence at post-test than at pre-test. Overall, teacher ratings of mentees' academic performance were significantly higher at post-test than at pre-test. The largest benefits were for mentees who were individually selected for the mentoring program, were matched with volunteer teen mentors, and whose mentoring focused largely on relationship development. Both mentees from whole-class mentee referrals, and those with teens who mentored to fulfill course requirements fared least well. No differences emerged across the three recruitment configurations in ratings made by mentors of their perceived impact on mentees.

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Children Teaching Children (CTC) Program (Sheehan et al., 1999)	**Goals:** Develop a cross-age mentoring relationship, structured by violence prevention activities, to modify violence attitudes and behaviors among preadolescents. **Setting:** Community. **Duration:** Eighteen months. **Mentors:** Adolescents (aged 14 to 21) participating in the Cabrini Green Youth Program (CGYP). **Mentees:** Preadolescents (aged 7 to 13) from the community in which the larger CGYP program was embedded. **Comparison group:** Children from the Cabrini Green community who were selected to match the mentees by age and sex.	• The teenage mentors in the CTC program designed and presented lessons to teach younger children about violence prevention. • Program activities included skits, games, and rap music; a total of 12 lessons were produced over the 18-month study period.	• Quasi-experimental design, comparing differences in average score for each outcome measure at three points in time (pre, 9-months, and post, 18-months) between the mentee and comparison groups. • Post-test treatment and comparison samples included only children who were available at the post-test, which was less than half of the original sample. • Outcome measures obtained from youth (two measures of attitudes about violence) and teachers (problem behaviors).	On the first measure assessing "exposure to violence and/or acceptance of violence," the intervention and comparison groups did not differ at baseline or midway through the study; but at the end of the study, the intervention group reported lower scores. The mentee scores decreased from 4.4 to 4.1 at 9-months and 3.3 at 18 months; whereas the comparison group's attitudes toward and exposure to violence increased from 4.0 to 4.4 and 5.5 across the same time points. On a second measure of acceptance of violence, differences between the intervention and comparison group emerged at both 9 and 18 months, favoring mentees. Although post-test teacher ratings of conduct disorder problems were lower for the intervention group (*n* = 17 of original 50), teachers reported on only 6 of the original 75 comparison students, largely invalidating these comparisons.