Big Sister Association of Greater Boston

The Role of Gender in Mentoring: A Three-Part Study

Executive Summary

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Evaluations of volunteer mentoring programs provide ample evidence that mentoring relationships can positively influence adolescent developmental outcomes, including improvements in peer and parent relationships, academic achievement, and self-concept, as well as lower recidivism rates among juvenile delinquents and reductions in substance use (Grossman & Tierney, 1998; DuBois, Holloway, Valentine, & Cooper, 2002; Rhodes, 2002). Few studies, however, have focused on the role of gender in shaping the course and effects of these relationships. Consequently, critical questions remain regarding the importance of a gender-specific approach to mentor training, supervising, and programming.

This project consisted of three interrelated studies that were intended to provide some preliminary answers to the lingering questions about the impact of gender on mentoring relationships and how these relationships affect youth outcomes. In order to conduct the study, the Big Sister Association of Greater Boston partnered with researchers from the University of Massachusetts Boston. The study's inception was in 2005, with data collection for Study 1 occurring from 2006-2008. While this smaller study involved primary data collection from youth participating in Boston-area mentoring programs, Study 2 and Study 3 were secondary analyses of much larger databases from two national studies.

These two studies both focused on reanalyzing data that were originally collected by Public/Private Ventures (P/PV) at Big Brothers Big Sisters agencies across the country. Each of the studies used an experimental design in which youth (both boys and girls) who agreed to participate in the study were randomly assigned to either a treatment (mentor) or control (waiting list for a mentor) group. While the earlier study examined youth in community-based mentoring (CBM) programs (Grossman & Tierney, 1998), the more recent study collected data from students in school-based mentoring (SBM) programs (Herrera, Grossman, Kauh, Feldman, & McMaken, 2007).

This executive summary presents the key findings from a series of three interrelated studies that focused on the role of gender in mentoring. The methods, samples, and data that were analyzed for each of the studies will be described below, along with select results from each one. Conclusions about the influence of gender in mentoring partnerships are presented at the end of the report.

Background

During the past twenty years, volunteer mentoring has grown substantially with more than two million young people participating in mentoring programs in the United States (Rhodes, 2002). Despite this increase, it is only recently that researchers have begun to provide evidence that mentoring programs can have a positive effect on youth (Grossman & Rhodes, 2002; Grossman & Tierney, 1998; Jackson, 2002). Among the many factors that may contribute to these positive outcomes are:

- individual characteristics of the mentee and mentor,
- quality of the relationship;
- length of the match;
- total amount of contact during the mentoring experience; and
- good program practices (including training, expectations, support for parental involvement, and monitoring).

Notably lacking in the mentoring literature is how the gender of the mentee could impact the nature and quality of mentoring relationships, and subsequent youth outcomes. If there are gender differences in mentoring relations, it would be important for mentoring programs, most of which are coeducational, to acknowledge such differences by offering different types of support to mentoring pairs. Developmental theories suggest that gender may indeed be a critical factor in shaping youths' needs, expectations and preferences in mentoring relationships, and outcomes. Exploring the ways in which males and females experience differences in mentoring can help to provide useful information for agencies that offer mentoring programs as well as for the mentors that participate in these programs.

Study 1: The Role of Gender in Single-Sex vs. Coed Mentoring Programs

Study 1 was intended to compare the differences between youth participating in a mentoring program at an agency with a single-sex mentoring program serving girls (Big Sister Association of Greater Boston) with one offering a coed program for girls and boys (Big Brothers Big Sisters of Massachusetts Bay). In order to recruit participants, information about the study was presented to staff at both agencies. At the time of the match meeting, potential participants were told about the study and were asked to sign informed consent forms if they agreed to participate (a parent form and one for the Little Sister or Little Brother). The decision about whether to participate in the study was strictly voluntary, and identical services were offered to those in the mentoring program whether they decided to be in the study or not.

The names of the youth in the mentoring program that had agreed to participate were then sent to the researchers at the University of Massachusetts Boston, and trained researchers called to conduct telephone interviews with the girls and boys (at BBBSMB) in the study. The interviews lasted approximately 15-20 minutes, and included questions in the following areas:

- scholastic competence;

- interpersonal relationships (friends, parents, and other adults – "I talk with my parents about a problem I am having");

- expression of feelings ("Sometimes I just don't have words to describe how I feel");

- positive behaviors (frequency of helping others in your neighborhood);

- anti-social behaviors (frequency of breaking something on purpose);

- substance use (tobacco, alcohol, and other drugs); and

- future goals (importance of education, job/career, and saving money).

This survey was administered to study participants after the initial match meeting, and a second time after they had been in the mentoring program for at least 15 months. In addition to the items listed above, the follow-up survey included questions about their mentoring experiences at Big Sister or Big Brothers. These questions asked about how much they met, whether they liked having a Big Sister or Big Brother, a series of items about their opinions of their mentor, what they liked best and least about having a Big Brother or Big Sister, and whether they would recommend the program to a friend who was not already in the program.

Among those that participated in the study, there was a range of grade levels, living situations, and previous experiences with mentoring relationships. The characteristics of the study participants were as follows:

School Grade: 2-3 = 8.8; 4 = 14.8; 5 = 25.2; 6 = 20.0; 7 = 15.6; 8 = 10.4; 9 = 5.2

Other Household Members:

Mother/stepmother – 88.8%	Sister(s) – 20.0%
Father/stepfather – 23.7%	Brother(s) – 20.7%
Grandparent(s) – 11.1%	Other adult(s) – 5.2%

Participated in previous mentoring program?

Yes – 26.3%
No – 73.7%

Previous mentoring program – # times met/month: < 1x = 17.1%; 1x = 20.0%; 2-4x = 25.7%; >4 = 37.1%

No significant differences were found between those participating in the mentoring programs at the two agencies with respect to school grade, their household members, or their previous mentoring experiences.

> ***Research question #1: Were there differences between youth in a single-sex mentoring program and those in a coed program?***

In order to compare youth in mentoring programs served by Big Sister and those at Big Brothers, analyses were conducted to compare the two groups using summary scales that were created by combining related items. Significant differences were found between those at Big Sister and Big Brother in half of these areas (see Table 1).

Table 1. Differences Between Youth in Big Sister and Big Brothers Mentoring Programs

Scale/sub-scale	Big Sister	Big Brothers	t	P
Scholastic competence	34.06	32.35	1.94	.055
Interpersonal	29.46	27.48	2.42	.017
Friends	6.44	6.90	-1.10	ns
Parents	12.7	11.74	2.16	.033
Other adults	8.28	7.64	1.59	ns
Feelings	47.05	50.81	-1.61	ns
Behaviors – positive	17.24	16.42	1.18	ns
Behaviors – negative	11.50	12.86	-2.12	.036
Future goals	15.29	14.70	2.08	.039

* ns = not significant

As indicated in Table 1, those in the mentoring program at Big Sister had significantly higher scores than the youth at Big Brothers in the areas of scholastic competence, interpersonal relations (overall), parental relationships, and future goals. In contrast, the youth at Big Brothers reported more negative behaviors.

As expected, when the two groups were compared using the individual items from the survey, there were significant differences between the two groups for several of the related items that comprised the scales. For example, the youth at Big Sister were more likely to say that they are good at schoolwork and that they are just as smart as the other kids their age, whereas those in the Big Brothers program were more apt to say that they had trouble figuring out the answers in school. Similarly, more of the youth in the Big Sister program felt that it was 'very important' to get an education at high school or to save money for the future.

**_Research question #2: Were these same differences found between the girls in each of the
mentoring programs?_**

While the differences between the youth in the two mentoring programs were interesting, it is also
important to compare the girls being served by each of the agencies. Towards this end, the same analyses
were conducted only with the girls participating in the Big Brothers mentoring program. As indicated in
Table 2, in all areas the girls in the Big Sister program were more positive than the girls at Big Brothers
(note: a high score on the 'feelings' and 'negative behaviors' were more negative). However, only two of
these differences were marginally significant.

Table 2.   Differences Between Girls in Big Sister and Big Brothers Mentoring Programs

Scale/sub-scale	Big Sister	Big Brothers	t	p
Scholastic competence	37.38	34.10	1.88	.064
Interpersonal	29.46	26.40	1.86	.067
Friends	6.44	7.30	-1.12	ns
Parents	12.75	11.70	1.21	ns
Other adults	8.28	7.00	1.62	ns
Feelings	47.05	53.20	-1.40	ns
Behaviors – positive	17.24	17.00	0.19	ns
Behaviors – negative	11.50	13.00	-1.40	ns
Future goals	15.29	14.60	1.29	ns

* ns = not significant

The girls participating in the Big Brother mentoring program were also compared with the girls at Big
Sisters with respect to the individual variables on the survey. Differences between the two groups of girls
were found for five of the items on the survey. For example, the girls in the Big Sister program were
more likely to raise their hand in class to answer a question (68% BS vs. 30% BB 'very true;' $x^2 = 7.46$; p
= .059). In contrast, the girls at Big Brothers felt that they were slower in finishing their homework (90%
'sort of' or 'very' true; $x^2 = 6.52$; p = .089).

In addition, the girls in the Big Sister program reported more often hanging out and having fun with
adults other than their parents (33% BS vs. 0% BB 'a lot;' $x^2 = 7.16$; p = .067), but were less apt to argue
with their parents (51% BS vs. 10% BB 'never;' $x^2 = 8.08$; p = .044). The final difference between the
two groups of girls concerned whether they were afraid to show it when they got upset, with the Big
Sister girls feeling that this happened less often (16% BS vs. 0% BB 'not at all;' $x^2 = 11.31$; p = .023).

Research question #3: How did the youth in the two programs view their mentoring relationships?

As mentioned above, a series of questions were asked to determine the extent to which the mentoring experience was a positive or negative one for the Little Sisters and Little Brothers. First, the study participants were asked about how often they met each month during the time that they were in the mentoring program (less than one time, one time, 2-4 times, or more than 4 times). The majority of the youth in the program (64%) reported meeting with their mentors between two and four times per month with very few (7%) indicating that they met less than once a month and the remaining participants meeting either once (16%) or more than four times (13%) per month.

However, when the mentees in the two programs were compared, there was a significant difference with respect to the average number of monthly meetings. Those participating in the mentoring program at Big Sister reported meeting significantly more than their counterparts at Big Brothers ($x^2 = 10.20$; p = .017). These differences were most striking with respect to the youth that met more than 4 times per month (22% at Big Sister vs. 0% at Big Brothers) and those who reported meeting once per month (33% at Big Brothers vs. only 4% at Big Sister). In light of the literature on the importance of frequent contact in effecting positive impacts, this would seem to be a very positive finding for the Big Sister mentoring program.

Beyond the frequency of mentor-mentee meetings, the study participants were also asked how they liked having a Big Sister or Big Brother (not at all, a little, somewhat, quite a bit, or a lot). The participants in the study were quite positive about their mentors, with three-quarters saying that they liked him or her 'a lot.' While the percentage of those assigning this rating was higher for the youth in the Big Sister program (82% to 61%), this was not a statistically significant difference.

Little Sisters and Little Brothers were also asked to answer a series of 15 questions that measured opinions of their mentor (Youth-Mentor Relationship Questionnaire). This scale is intended to measure four different areas related to the mentor relationship: "not dissatisfied," "helped to cope," "not unhappy," and "trust not broken." While three of these sub-scales relate to the lack of negative feelings, the authors attribute this to the fact that "successful mentoring relationships tend to be defined less in terms of positive attributes than by the absence of disappointment and other negative feelings." (Rhodes, Reddy, Roffman, & Grossman, 2005).

When compared on these four youth-mentor quality relationship scales, the youth being served by the Big Sister mentoring program were higher on the "Helped to cope" scale, indicating that their mentors were somewhat more helpful to them in assisting them with their daily challenges. No differences between the two groups were found for the other three mentor scales.

Table 3. Youth-Mentor Relationship Scales

Scales	Big Sister	Big Brothers	T	P
Not dissatisfied	3.38	4.06	-1.41	ns
Helped to cope	10.81	9.76	1.98	.055
Nor unhappy	6.85	7.41	-0.66	ns
Trust not broken	10.44	11.44	-0.79	ns

The youth in the program were also asked a series of open-ended questions at follow-up about their likes and dislikes related to the mentoring experience. While many of the youth did not have comments about what they didn't like or liked least, they were quite open about sharing their thoughts with respect to what they liked the best about having a Big Sister or Big Brother. In general, these comments could be categorized as related to either going places and doing things, or having someone different to talk things over with or who would listen to their problems.

Examples of comments in this latter category are as follows:

> *"She's nice and I know I can talk to her about stuff."*
>
> *"Having someone to talk to about things I couldn't tell my parents."*
>
> *"I like that she asks me what I want to do and she agrees with it."*
>
> *"You get to talk about what's wrong."*
>
> *"Hanging out and getting my mind off things."*
>
> *"Having someone to go to for advice."*

Several differences were found between those being served by a single-sex mentoring program and those attending one that was coed, with all of these differences more positive for those served by the single-sex mentoring program. It was interesting that these differences occurred at baseline, before the full impact of the mentoring relationship had occurred. However, it should be noted that nearly one-third of the study participants had already met with their mentor at least five times at baseline.

There were fewer differences between the girls in each of the mentoring programs, but those in the Big Sister program were more positive than the girls in the Big Brother program. When the girls in the single-sex mentoring program were compared with those in the coed program, they appeared to be more positive in the areas of scholastic competence and interpersonal relationships. In addition, there were some differences in some of the individual items related to academics, interaction with other adults, and feelings.

Overall, the youth in both programs were quite positive about their mentoring experiences. On average, those in the single-sex mentoring program had met significantly more times than those in the coed program. Three-quarters of the study participants reported liking their mentor 'a lot.' While over 22% of the youth at Big Sisters said that they met an average of more than four times per month with their mentors, none of those in the mentoring program at Big Brothers had met this often. When asked what they liked best about their mentors, the mentees were divided between going place and doing things with them and having someone with whom they could talk.

Study 2: The Role of Gender in Community-Based Mentoring Programs

Study 2 utilized a database of 1,138 youth collected by Public/Private Ventures at eight Big Brothers Big Sisters of America (BBBSA) programs across the country during the 1990's (Grossman & Tierney, 1998). Participants were randomly assigned to either a treatment (immediate match with a mentor) or control group (12-month waitlist for a mentor). The analyses in this summary are based on a sample of 959 youth (treatment = 487; control = 472) who completed both baseline and follow-up (18 months later) interviews.

The participants ranged in age from 9 to 16 (average = 12), over half were male (63%), and 43% were white, 40% African American, 10% Hispanic, and 7% in other racial/ethnic groups. Most (90%) lived in single-parent households (predominantly mothers) while 5% lived with a grandparent and 5% with others.

The interviews consisted of measures about the functioning of youth in three areas:

- Psychosocial – parental and peer relationships, feelings about self
- Behavioral – drug and alcohol use, aggression, and delinquency
- Educational – academic competence, attitudes toward school, grades

Research question #4: To what extent do girls experience greater difficulties in their parental relationships than boys?

Analyses were conducted with respect to overall parent and peer attachment, as well as the areas of trust, communication, and alienation. Girls reported significantly lower levels of parental trust and higher levels of alienation from their parents, but no differences were found between boys and girls in terms of parental communication or overall parent and peer attachment (see Table 5).

Table 4. Parent and Peer Attachment Scales and Sub-scales

Scale/sub-scale	Gender	Mean	t	p
Trust	Male	32.13	3.24	.001
	Female	31.31		
Communication	Male	28.19	1.31	ns*
	Female	27.79		
Alienation	Male	13.59	-2.59	.010
	Female	14.32		
Parent & Peer Attachment	Male	73.91	0.92	ns*
	Female	73.42		

* ns = not significant

Research question #5: Do girls stay in mentoring relationships longer than boys?

Girls spent an average of one month longer in mentoring relationships than boys (11. 4 vs. 10.3, t = -2.04, p = .042). When categorized into mentoring relationships that lasted 1-6, 7-12, or 13-18 months, there were higher percentages of boys in the short and medium categories while the opposite was true in the longest-term group (i.e., a higher % of girls in this group – see Table 6).

Table 5. Length of Mentoring Relationships
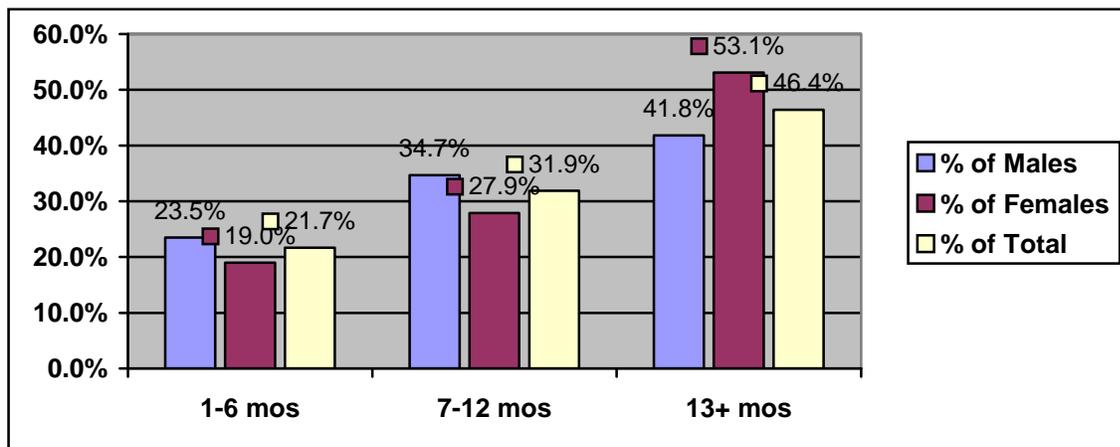
Research question #6: Are there differences between girls and boys with respect to the level of satisfaction with mentoring relationships over time?

Boys and girls were next compared on their level of satisfaction with the mentoring experience over time (as measured by the Youth-Mentor Relationship Quality Inventory). While the increase in satisfaction was about the same for both groups between the short (1-6 months) and medium-term (7-12) points in time, the level of satisfaction for boys was higher than girls at both of these time periods. However, when relationships lasted longer than 12 months (i.e., 13-18 months), the increase in satisfaction was greater for girls, even surpassing the boys at this later point in time (see Table 7).

Table 6. Level of Satisfaction with Mentoring Relationship by Length of Time

Length	Gender	Mean	F	P
1-6 Months	Males	56.06	3.05	.010
	Females	54.93		
7-12 months	Males	59.95		
	Females	57.82		
13-18 months	Males	60.89		
	Females	61.14		

The findings from Study 2 have implications for existing mentoring programs as well as those who are in the process of developing new programs. A summary of the research findings using this database and related recommendations are outlined below.

Girls are more likely than boys to enter mentoring programs feeling less trusting and more alienated from their parents. Mentoring programs that recognize the fragility of the mother-daughter relationship of many female mentees may be more successful in having a positive impact on their lives by educating their mentors about these relationship issues. This is especially important since the parent-child relationship has been shown to be an important mediator of change among youth in mentoring programs (Rhodes et al., 2000). It should also be noted that there was no difference between girls and boys with respect to communication with parents. Therefore, girls may continue to talk with their parents since these relationships may hold more importance in their lives than in the lives of their male counterparts.

Girls stay in mentoring relationships longer than boys. The findings related to the length of mentoring relationships can also be used to better tailor mentoring programs to the needs of girls and boys in the programs. Although insecure relationships with parents might predict problems in other relationships (including those with mentors), this suggests that girls do not give up easily on these relationships. This finding confirms the importance of providing enough supports to mentors and mentees so that mentoring relationships will have time to develop, and to recognize that this may take longer for girls than boys.

Boys are more satisfied with their mentors than girls during the early stages, but the reverse is true for relationships lasting longer than a year. The final research question was related to the level of satisfaction with the mentoring relationships over time, and whether there were differences between boys and girls. Thus while a year may be long enough for boys to establish satisfying relationships, at least for a certain percentage of girls this may take longer. This is further support for the importance of agencies encouraging and supporting longer term mentoring relationships, especially for girls who may take longer to develop trusting relationships with their mentors but who may also experience greater benefits in the long term.

This study offers new information about gender-related differences among the youth who participate in community-based mentoring programs. Although research has shown that mentoring can improve youth outcomes, especially when offered through well-run programs, these findings related to gender may help mentoring programs sharpen their matching abilities and more appropriately tailor the training of their mentors based on the gender of the mentees.

Note: as a result of this study, these findings have been recently published in the Journal of Vocational Behavior (Rhodes, J., Lowe, S.R., Litchfield, L., & Walsh-Samp, K., 2008).

Study 3: The Role of Gender in School-Based Mentoring Programs

This study was similar to Study 2 in several ways:

1. It used a randomized experimental design with youth assigned to either a treatment (mentor) or control (waiting list for mentor) group.
2. Data were collected by Public/Private Ventures through BBBS agencies nationwide.
3. The study had a large sample size, with over 1,000 youth involved in the study.
4. A longitudinal design was used, with interviews conducted at more than one point in time (although this study used three waves of data compared to two in Study 2).

In addition to being conducted more recently (completed in 2007 vs. 1998 for Study 2), the other main difference was that the study collected data from girls and boys participating in a school-based mentoring (SBM) program rather than one focused in the community (like Study 2).[1]

The database that was analyzed for Study 3 consisted of 1,139 youth in grades 4-9 who attended over 70 schools and participated in SBM programs through ten BBBS agencies across the country. Data were collected at the beginning and end of one school year, as well as at the end of the following fall term (Herrera et al., 2007). The analyses in this summary will focus on whether Little Brothers and Little Sisters differed in the following areas:

- academic performance and psychosocial functioning at baseline;

- satisfaction with and characterization of the mentoring relationships; and

- benefits derived from mentoring.

> ### Research question #7: How do Little Sisters differ from Little Brothers in terms of baseline characteristics and functioning?

Two types of data were used to compare the academic functioning of Little Sisters and Little Brothers at baseline – teacher reports and youth self-reports. According to teachers, the academic performance of girls was significantly better than boys in several areas, including math, science and social studies, as well as overall performance.

In terms of youth's self-reports, Little Sisters reported significantly better grades, greater academic self-esteem, more positive feelings about school, better teacher relationships, and a greater likelihood of attending and completing college than Little Brothers.

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[1]Note: While these data are quite recent, they were made available to the Principal Investigator of "The Role of Gender in Mentoring" study due to her presence on the agency's advisory group. In addition, the authors of the P/PV study (Herrera et al., 2007) had not analyzed the data through the lens of gender differences and were quite excited to have the researchers in this study conduct these analyses.

Table 7. Academic Variables for Little Brothers and Little Sisters at Baseline

	Males (Mean)	Females (Mean)	t / χ^2	p
Teacher Report				
Overall	2.37	2.71	3.36	.001
Math	2.35	2.52	1.48	ns*
Science	2.50	2.76	2.52	.012
Social Studies	2.53	2.83	2.98	.003
Absent from class	.41	.29	.91	ns*
How many times absent	1.17	1.04	.68	ns*
Self-Report				
Grades on last report card	5.40	6.06	3.99	<.001
Academic Self-Esteem	3.17	3.30	2.24	.026
Extracurricular Activity Participation	2.37	2.43	.50	ns*
Scholastic Efficacy	2.81	2.80	.11	ns*
Feelings about School	3.02	3.33	6.17	<.001
Teacher Relationship	3.26	3.42	3.51	.001
Likelihood of Attending/Completing College	3.15	3.42	3.49	<.001
Skipping School	1.24	1.14	1.72	.080
Ever Skipped School (%)	10.0	5.6	3.78	.052

* ns = not significant

Youth also reported on various psychosocial indicators at baseline, with females again reporting a higher level of initial functioning. Little Sisters reported significantly greater levels of peer self-esteem enhancement, future connectedness, and more pro-social behaviors than Little Brothers. In contrast, Little Brothers reported significantly more misconduct and substance use over the previous three months.

Table 8. Psychosocial Variables for Little Brothers and Little Sisters at Baseline

	Males (Mean)	Females (Mean)	t	p
Social Acceptance	2.67	2.56	1.77	.077
Global Self-Worth	3.21	3.17	.82	ns*
Peer Self-Esteem Enhancement	2.93	3.11	2.59	.01
Parent Relationship	3.19	3.23	.89	ns*
Pro-social Behavior	3.07	3.38	3.45	.001
Misconduct	.90	.83	2.22	.027
Substance Use	.15	.08	2.65	.008
Stress	4.58	4.68	.46	ns*
Future Connectedness	18.41	19.09	2.54	.012
Absent Parent	7.33	7.07	.85	ns*

* ns = not significant

> ### Research question #8: Were there differences in the average length of matches for Little Sisters versus Little Brothers?

When analyses were conducted to compare various indicators of match length for Little Sisters versus Little Brothers, very few differences were found with respect to how long matches lasted (including average and overall match length). The only exceptions were that Little Sisters had significantly longer second matches both during Year 1 (t = 2.35; p = .019) and overall (t = 1.99, p = .047).

> ### Research question #9: Are there differences between Little Sisters and Little Brothers with respect to how satisfied they are with their mentors or how they describe their mentoring relationships?

By Time 3, Little Sisters reported significantly more "youth-centered" relationships and greater emotional engagement, and were also more likely to report that their mentor helped them to cope. However, they also scored significantly lower than Little Brothers on scales of "not dissatisfied" and "not unhappy."

Table 9. Little Brothers and Little Sisters' Scores on Mentoring Relationship Scales

	Males (Mean)	*Females* (Mean)	*t*	*p*
Time 2				
Youth-Centered Relationship	3.39	3.50	1.90	ns*
Emotional Engagement	3.55	3.62	1.62	ns*
Not Dissatisfied	1.40	1.26	2.57	.011
Not Unhappy	1.38	1.30	1.83	ns*
Trust Not Broken	1.74	1.64	1.83	ns*
Time 3				
Youth-Centered Relationship	3.34	3.55	3.41	.001
Emotional Engagement	3.43	3.63	3.66	<.001
Not Dissatisfied	1.51	1.33	3.14	.002
Helped to Cope	3.12	3.39	3.74	<.001
Not Unhappy	1.47	0.64	2.71	.007
Trust Not Broken	1.83	1.78	1.00	ns*

* ns = not significant

Another analysis (repeated measures analysis of variance) was conducted to detect significant differences between Little Sisters and Little Brothers in mentoring relationships over time. The findings from this analysis revealed that whereas Little Sisters became significantly more trusting of their mentors between Time 2 and Time 3 (F = 10.40; p = .001), Little Brothers became less emotionally engaged with their mentors between these two time periods (F = 5.40; p = .02).

The same type of analysis was done to examine the impact of both time and gender for study participants with mentors. After controlling for gender, youth became less emotionally engaged with their mentors but were more trusting over time. However, when time was controlled, Little Sisters reported significantly more youth-centered relationships, greater emotional engagement with their mentors, less dissatisfaction, and lower scores on the "not unhappy" subscale. None of

the interactions between time and gender were significant, indicating that the effect of gender was consistent over time, and vice versa.

Research question #10: What is the difference between Little Sisters and Little Brothers with respect to social, behavioral, and academic outcomes?

In order to determine whether Little Sisters and Little Brothers were different with respect to various outcomes, several analyses were conducted. First, repeated measures analysis of variance was again used to examine changes in academic and psychosocial outcomes over time, with separate analyses for each of the two groups.

There were a few positive improvements for Little Brothers over time, including increased peer self-esteem enhancement (F = 3.48; p = 032), a greater sense of being connected to the future (F = 11.67; p < .001), and a significant decrease in their levels of stress over time (F = 12.76; p < .001). In addition, while their feelings of social acceptance improved over time, there was also a decrease in this area between the second and third times that the data were collected (but still higher than at baseline). None of the academic measures showed significant changes over time.

When the same analyses were conducted for the Little Sisters, many more differences were evident. First, in terms of psychosocial measures, the girls were similar to their male counterparts in that they experienced improvements in peer self-esteem enhancement, future connectedness, and social acceptance (with this change being sustained over time), and a decrease in stress over time. In addition, there were two other differences that were not found with the Little Brothers – an increase in pro-social behaviors but also a rise in substance use.

In comparing the academic ratings of the girls over time, in contrast to the boys several improvements were revealed. Several teacher ratings improved over time, including overall performance, reading and math (although the latter rating decreased between the second and third points in time). In addition, the self-reported grades of the girls also improved. Despite these advances in academics, girls reported feeling less positive about school over the course of the study.

Table 10. Academic and Psychosocial Outcomes Over Time for Little Sisters

	F	p	Sig. Differences over Time
Academic			
Extracurricular Activities	2.80	.062	--
Scholastic Efficacy	1.52	ns*	--
Academic Self-Esteem	.34	ns*	--
Feelings about School	3.13	.046	T1 > T2
Teacher Relationship	.85	ns*	--
Likelihood of Attending/Completing College	1.12	ns*	--
Self-reported Grades	3.22	.043	--
Self-Reported Skipping School	.35	ns*	--
Teacher-Reported Absences	2.30	ns*	--
Teachers' Ratings - Overall Performance	6.30	.004	T2 > T1
Teachers' Ratings – Math	2.12	ns*	T2 > T1
Teachers' Ratings – Science	2.80	.070	T2 > T1
Teachers' Rating - Social Studies	6.53	.003	T2 > T1; T2 > T3
Teachers' Ratings – Reading	3.37	.044	T2 > T1
Psychosocial			
Social Acceptance	19.07	< .001	T3 > T1; T3 > T2
Global Self-Worth	2.62	.074	--
Peer Self-Esteem Enhancement	3.56	.030	T3 > T2
Parent Relationship	1.55	ns*	--
Pro-social Behavior	4.46	.013	T3 > T1
Misconduct	2.72	.070	T2 > T1
Substance use	3.81	.023	T2 > T1; T3 > T1
Stress	8.79	< .001	T1 > T2; T1 > T3
Future Connectedness	8.46	< .001	

* ns = not significant

In order to further examine the apparent gains for Little Sisters but not Little Brothers in the important area of academics, additional statistical techniques called regression analyses were conducted. These analyses were again run separately for the male and female participants, and included those in both the treatment and experimental groups.

In an attempt to isolate the effects of the mentoring experience, the analyses controlled for a set of other factors that could also potentially have an impact on academic performance. To take into account the scores of the participants at the beginning of the study, baseline values for all of the outcomes were controlled. In addition, baseline and follow-up values were controlled in the following areas: relationships with parents and teachers, academic self-esteem, scholastic efficacy, peer self-esteem enhancement, social acceptance, and feelings of self-worth.

The results of these analyses provide further evidence that Little Brothers and Little Sisters derive different benefits from mentoring relationships. While there were no statistically significant differences in academics over time when the above variables were controlled, girls seemed to derive much greater benefits in their academic performance. This is evidenced by significant treatment effects with respect to the teachers' ratings of overall academic performance, quality of work, and number of assignments completed (see Table 11).

Table 11. The Effect of Treatment on Academic Outcomes for Little Brothers and Little Sisters,
Controlling for Other Variables**

	Males		Females	
	B	p	B	p
Teacher Report				
Overall Academic Performance	.011	ns*	.060	.039
Science	.026	ns*	.057	ns*
Reading	.031	ns*	.032	ns*
Quality of Work	.007	ns*	.092	.004
Assignments	.044	ns*	.073	.033
Language	.051	ns*	.044	ns*
Misconduct	-.091	ns*	-.060	ns*
Self Report				
Scholastic Efficacy	.060	ns*	.037	ns*
Skipping School	-.076	ns*	-.017	ns*

* ns = not significant
** Variables controlling in each regression analysis included baseline values of each outcome as well as baseline and follow-up values for the following variables: parent relationship, teacher relationship, academic self-esteem, scholastic efficacy, peer self-esteem enhancement, social acceptance, and self-worth.

Finally, a second regression analysis was conducted using data from the full sample (both girls and boys) to further investigate the effects of gender and mentoring on academic outcomes, while controlling for the areas described above. After these variables were taken into account, the effect of the mentoring treatment remained significant for teachers' ratings of quality of work, completion of assignments, scholastic efficacy, and skipping school. Interestingly, the impact of gender was still seen for all of the academic areas tested (with the exception of skipping school which remained infrequent).

Table 12. The Effect of Gender and Treatment Controlling for Other Variables**

	Treatment		Gender	
	ß	p	ß	p
Teacher Report				
Overall Academic Performance	.039	ns*	.062	.010
Science	.043	ns*	.060	.040
Reading	.030	ns*	.060	.013
Quality of Work	.050	.029	.066	.011
Assignments	.060	.021	.063	.024
Language	.040	ns*	.054	.037
Misconduct	-.062	ns*	-.122	.001
Self Report				
Scholastic Efficacy	.043	.047	-.053	.020
Skipping School	-.044	.035	.006	ns*

* ns = not significant
** Variables controlling in each regression analysis included baseline values of each outcome as well as baseline and follow-up values for the following variables: parent relationship, teacher relationship, academic self-esteem, scholastic efficacy, peer self-esteem enhancement, social acceptance, and global self-worth. In addition, results under treatment also control for the effect of gender; likewise, the results under gender also control for the effect of treatment.

The findings from Study 3 provide evidence that Little Brothers and Little Sisters differ in several areas, including their baseline functioning, the quality of their mentoring relationship, and the benefits they derive from their mentoring experiences. Each of these differences will be summarized below.

Little Sisters enroll in mentoring programs with higher levels of functioning. This was seen both in their self-reported grades and academic engagement, as well as their teachers' reports of overall performance and aptitude in social studies and science. In addition, Little Sisters entered the study with higher levels in some psychosocial areas, including future connectedness, pro-social behavior, and peer self-esteem enhancement. In contrast, Little Brothers reported higher levels of misconduct and substance use at baseline. The presence of these differences at the beginning of the study may affect the nature of students' bonds with their mentors, as well as different needs, especially in a school context. For example, the mentors of Little Brothers might be more likely to provide them with academic assistance in an effort to improve these areas.

The Little Brothers and Little Sisters in this study were very similar in the length of their mentoring relationships. The only significant gender difference was that females had longer second matches (during Year 1 and overall) than males. This gender difference might indicate a greater willingness on the part of girls to re-engage with a new mentor after their first mentoring relationship has terminated.

Girls and boys differed in their satisfaction with mentoring relationships in that girls expressed more satisfaction as the relationships lasted longer. There were several significant differences between Little Brothers and Little Sisters on scales assessing relationship quality at Time 2 and Time 3.

These included greater scores on the "dissatisfaction" and "not dissatisfied" subscales at Time 2 for Little Sisters. This may perhaps indicate that there is a lower likelihood of strong feelings among girls toward their mentors at this earlier point in the mentoring relationship.

At Time 3, however, Little Sisters scored significantly higher on scales assessing whether the relationship was "youth-centered" and with respect to their emotional engagement, as well as the "not dissatisfied" and "helped to cope" subscales. The fact that there were more significant gender differences at Time 3 suggests that Little Brothers and Little Sisters experience mentoring relationships differently over time. Additional analyses to examine feelings about the mentoring experience found that while Little Brothers became less emotionally engaged with their mentors over time, Little Sisters became more trusting of their mentors. These gender differences seemed to be relatively consistent over time.

Little Brothers and Little Sisters derive different benefits from mentoring relationships. Little Brothers had significant improvements on measures of peer relationships (social acceptance and peer self-esteem enhancement), while at the same time experiencing decreased stress and increased future connectedness over the course of the study. Little Sisters also experienced improved peer relationships and lowered stress levels at the three time periods, but they also had more academic gains (as evidenced by improved teacher ratings). Furthermore, even when other variables that may have accounted for academic improvement were controlled, these improved teacher ratings of girls' academic performance were still present.

Multivariate analyses showed that the effects of gender and time in academic areas were, for the most part, independent of each other. In addition, a second multivariate analysis demonstrated that the effects of mentoring and gender on academic outcomes remained even after other variables were controlled. The fact that there were still significant gender differences, independent of treatment effects and other variables, indicates that males and females continued to differ in their academic performance, with females outperforming males, over the course of the study.

Overall, these analyses suggest that gender has a significant influence throughout mentoring relationships. Little Brothers and Little Sisters enter mentoring relationships with different needs, the perceived quality of their mentoring relationships differs, and they derive different benefits from the mentoring experience.

Conclusions

Overall, our findings shed light on how gender impacts the development of mentoring relationships, process, and outcomes. The findings from the school-based mentoring program analyses indicate that, relative to boys, girls are higher functioning at baseline, develop closer ties, and derive different benefits. Findings from the community-based mentoring program analyses indicate that relative to boys, girls referred to Big Sister have lower levels of closeness in their parental relationships. They are also more satisfied with longer lasting relationships and more disappointed by early terminations. These findings suggest that programs should be sensitive to how baseline parent-child relationships may affect the development of mentoring relationships. Women volunteers should be particularly sensitive to how difficulties in the parent-daughter relationship could impede closeness and satisfaction in the early stages of the mentoring relationship. Since the youths' satisfaction and perceived helpfulness of mentors increased over time, mentors should be supported in developing their mentoring relationships, and instructed that it may take time for their mentees, especially girls, to trust them, accept their support, and enjoy their time together. Analyses of girls' experiences in Big Sisters versus Big Brothers suggest that these needs may be better met in the context of same-sex programs. In particular, relative to girls in Big Brothers, girls in Big Sisters met with their mentor more

frequently and felt that their mentor did more to help them cope with the difficulties in their lives. Relationship intensity and quality are byproducts of the careful screening, training, and ongoing case management that is employed at Big Sister.

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