Evaluation of a Mentoring Program for Elementary School Students at Risk for Emotional and Behavioral Disorders

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Abstract

Background: For healthy development, children need positive relationships with adults. Due to changes in family systems and shifting social norms, many children may be receiving less parental support than in the past and may be discouraged from forming natural mentoring relationships with other adults. Mentoring programs are designed to facilitate appropriate, meaningful relationships between children and adults leading to positive outcomes such as improved social skills and self-esteem. Mentoring programs are being more widely implemented in schools, though additional evaluation of the effects of these programs is needed.

Aims: The purpose of this article is to describe and evaluate a school-based mentoring program in which adult volunteers were paired with elementary school students at risk for emotional and behavioral disorders. A secondary question addressed how the school-based mentoring program was perceived by those involved (e.g., students, mentors, teachers, and parents).

Sample: Primary participants were 16 students and their adult mentors located in a suburban elementary school in the western United States.

Method: Students were selected for the mentoring program using a school-wide screening for emotional and behavior disorders. Evaluation focused on what impact the school-based mentoring program had on ratings of students' social competence, antisocial behaviors, academics, and attendance.

Results: Quantitative analysis of data, based on parent and teacher ratings, indicated improvements in students' social competence and decreases in antisocial behaviors, teachers also noted improvements in students' grades. Qualitative analysis revealed that parents, mentors, students, and teachers were all generally pleased with the mentoring experience.

Conclusion: Results suggest that participation in the mentoring program was associated with improved social skills, decreased antisocial behaviors, and improved academic behaviors, though teachers noted more of these improvements than did parents. Steps for those wanting to initiate school-based mentoring programs are provided.

Keywords: school-based mentoring, at-risk students, emotional and behavioral disorders

評估一所小學指導情緒和行為失調學生的課程

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摘要

背景：良好社會關係有助於兒童健康發展。隨著家庭系統和社會規範的變化，當前許多家長給予兒童的支持更少，這妨礙了兒童與成人建立正常的教導關係。為此，研究者設計了許多指導課程，通過提高兒童的社會技能和自尊等方式來幫助兒童與成人建立適當的人際關係。儘管這些課程的效果還需進一步評估，但這些指導課程已經在學校得到了廣泛應用。

目的：本文包括兩個研究目的。一是描述和評估基於學校的指導課程。在該課程裏，成人自願者與情緒和行為失調的小學生兩兩配對。另一個目的是考察參與者（學生、指導者、教師和家長等）對基於學校的指導課程的知覺。

取樣：美國西部遠郊的16名小學生和他們的成人指導者。

方法：採取全校篩選的方法，選取情緒和行為失調的學生參與指導課程。在指導課程結束後，對學生的社會勝任力、反社會行為、學業成績以及入學狀況進行評估，考察指導課程的效果。

結果：對家長和教師的評分進行定量分析，結果發現，學生的社會勝任力得到了提高，反社會行為減少，教師認為學生的學業成績也得到了提高。定性分析結果發現，家長、指導者、學生和教師都對整個指導課程感到滿意，同時也樂於參與指導課程。

結論：研究結果表明指導課程有助於提高兒童的社會技能、減少反社會行為，提高學業成績。和家長相比，教師認為指導課程對兒童的幫助更大。因此研究者可逐步為學校提供更多的基於學校的指導課程。

關鍵字：基於學校的指導　處境不利的學生　情緒和行為失調

For healthy development, children need positive relationships with adults (Search Institute, 2005). Due to changes in family systems and shifting social norms, many children may be receiving less parental support than in the past (Jekielek, Moore, & Hair, 2002; Rhodes, Reddy, Roffman, & Grossman, 2005) and may be discouraged from forming natural mentoring relationships with other adults (Rhodes, 2005). Mentoring programs are designed to facilitate appropriate, meaningful relationships between children and adults leading to positive outcomes such as increased social skills and self-esteem (Dappen & Isernhagen, 2005; Dubois, Neville, Parra, & Pugh-Lilly, 2002).

Mentoring

Mentoring can be divided into two broad categories: community-based programs and school-based programs. Community-based mentoring began over 100 years ago (Big Brothers Big Sisters, 2006) and continues to be successful. School-based mentoring, initiated more recently, is increasing in popularity since it requires less time (e.g., typically shorter mentoring sessions and school breaks), depends less on parents for participation, and provides a safe and structured environment (Hancock, 2003; Herrera, 1999; Herrera et al., 2007). Recent research suggests that school-based mentoring is associated with improvements in students' self-esteem, attitudes towards school, and peer and parental relationships (Hancock, 2003; Rhodes et al., 2005). It may also be associated with academic achievement and behavioral improvements (Keating, Tomishima, Foster, & Alessandri, 2002; Ryan, Whittaker, & Pinckney, 2002). Herrera (1999) found that mentors encouraged more positive relationships between the students, their teachers, and school administration. Due to these potential benefits, school-based mentoring may be an effective, cost-efficient intervention for students at risk for emotional and behavioral disorders (Glomb, Buckley, Minskoff, & Rogers, 2006; Herrera, Sipe, McClanahan, Arbreton, & Pepper, 2000).

Evaluation of mentoring programs has occurred since the 1970's, but is still considered to be in its early developmental stages (Dubois, Holloway, Valentine, & Cooper, 2002). Due to limited empirical studies (Jackson, 2002) and sometimes discrepant findings (Keating et al., 2002), additional evaluation is needed to fully understand the impact of school-based mentoring, particularly on students at risk for emotional and behavioral disorders (EBD).

Emotional and Behavioral Disorders

Students with EBD experience fewer positive outcomes, more frequent removal from class, and less academic instruction than any other group of students with disabilities (Jolivette, Stitchter, Nelson, Scott, & Liaupsin, 2000). General education teachers commonly report that students with EBD are among the least desirable to have in their classrooms (Soodak, Podell, & Lehman, 1998) and that they feel ill prepared to address the needs of such students (Cheney & Barringer, 1995; Cook, 2002).

The following are characteristic outcomes for students with EBD; they often struggle in school because of their limited task completion, academic skill deficits, and lack of content knowledge (Lane, Wehby, & Barton-Arwood, 2005). Students with EBD have lower grades and fail more classes than other students (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005), and are often viewed by teachers as less academically competent than students with learning disabilities (Lane, Carter, Pierson, & Glaser, 2006). Approximately half of students with

EBD drop out of school (Wagner et al.) and only 42% of those who remain in school graduate (Lewis & Sugai, 1999). Such students often have lower levels of social competence and higher levels of problem behavior (Lane et al., 2006) as well as difficulty forming and maintaining relationships (Individuals with Disabilities Education Act, 2004).

Students with EBD often experience years of academic failure and peer rejection before evaluations and diagnoses are begun (Lane, Gresham, & O'Shaugnessy, 2002). A proactive method for early identification of students at risk for EBD is systematic school-wide screening (Walker, Cheney, Stage, & Blum, 2005). Screening can help identify students before problem behaviors become serious, increasing the likelihood that interventions will be successful. As at-risk students are identified, interventions such as mentoring can be designed and implemented to meet their needs. A school-based approach that may be compatible with the delivery of mentoring services to at-risk students is Positive Behavior Support (PBS).

Positive Behavior Support

Fundamental to PBS is the concept that positive school environments may be cultivated using preventative teaching strategies (Sugai, Horner, & Gresham, 2002). PBS incorporates a three-tiered model to design interventions that meet the individual needs of students (Lane & Beebe-Frankenberger, 2004). PBS is based on research indicating that approximately 80% of students respond to *universal* or primary level interventions that explicitly teach and reinforce behavioral expectations to all students in a school. *Targeted* or secondary level interventions provide specific services and support to an estimated 10-15% of students who may have been labeled as *at risk* and projected to benefit from services such as small group instruction in social skills. A more intensive *individual* or tertiary level support provides highly focused assessment and intervention to the approximately 1-5% of students who don't respond to less intensive services, including those with educational disabilities (Horner & Sugai, 2002; Sugai & Horner, 1999). Mentoring for at-risk students may work well as part of a targeted PBS intervention.

Purpose

Mentoring as a school-based intervention is increasing in popularity but has yet to be evaluated as part of a PBS approach. One group of students who may particularly benefit from mentoring are those identified as at risk for EBD. The purpose of this article is to describe and evaluate a five-month school-based mentoring program in which adult volunteers were paired with elementary students at risk for EBD. Evaluation focused on what impact the school-based mentoring had on ratings of students' social competence, antisocial behaviors, academics, and attendance. A secondary question addressed how the school-based mentoring program was perceived by those involved.

Method

Setting

The mentoring program was implemented as a project of a 25-year-old university-public school partnership, a joint venture between a university and five local school districts in the western United States for the purpose of improving public education. Implementation took place in a suburban elementary school which was part of this partnership. The geographic area in which the school is located was experiencing rapid growth, with a significant projected increase in student enrollment for the

coming decade.

This school had been implementing primary level PBS for five years by delivering weekly social skills instruction, providing written praise notes to students, using parent home notes, and reciting a school pledge. To support students' social and academic growth, the school staff also conducted screenings annually to identify at-risk students. The mentoring program was intended as a secondary level PBS intervention for students who had been identified as at risk for EBD. The school and student participant demographics are shown in Table 1 below.

Table 1

Demographic Characteristics of School (N = 532) and Student Participants (N = 16)

	School		Student participants	
Characteristic	n	%	n	%
Free and reduced price lunch	281	53	13	81
Gender				
Male	288	54	12	75
Female	244	46	4	25
Grade				
K	90	17	0	0
1	69	13	2	13
2	74	14	6	37
3	85	16	2	13
4	74	14	2	12
5	70	13	3	19
6	70	13	1	6
Ethnicity				
Caucasian	397	75	11	69
Hispanic	110	21	4	25
Black	9	2	1	6
Asian	5	1	0	0
Polynesian	4	1	0	0

Participants

The primary participants were 16 elementary school students and their adult mentors. Chi-square analysis revealed that the percentage of students receiving free and reduced price lunch was significantly higher among the selected participants than in the general school population ($\chi^2 = 5.13$, $p < .05$). A slightly higher percentage of the student participants were Hispanic and Black than among the general school population, though chi-square analysis revealed that these percentages were not significantly different.

The 16 mentors who participated in this study ranged in age from 20 to 80 years, with 13 (81%) over 50. All of the mentors had a high school diploma, 9 (56%) had at least a bachelor's degree, and 3 (19%) had doctoral degrees. Among the mentors, 9 were retired (56%) and 11 (69%) were female. All mentors were Caucasian.

Materials

A variety of resources were made available to mentors, including school computers, media materials, and playground equipment. Mentors were provided with a mentor training manual and access to resource bags containing books with themes meant to encourage discussion on a variety of subjects such as making friends, being honest, and having good manners. The bags also included items such as colored pencils and art paper, word search sheets, crossword puzzles, and math flash cards.

Procedures

Student screening. Stages One and Two of the Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1992) were used to identify students at risk for emotional and behavioral disorders. The SSBD has been standardized and normed in elementary schools. Reviewers have noted evidence of its reliability and validity for identifying students at risk for EBD (Kelley, 1998; Zlomke & Spies, 1998).

During the first stage of the SSBD, classroom teachers nominate and rank order students from their classes who exhibit internalizing (e.g. excessive shyness, anxiety, or depression) or externalizing (e.g., defiance and aggression) behaviors. The three top ranked students in each category then move on to Stage Two, which includes a Critical Events Index (CEI) and a Combined Frequency Index (CFI). The CEI consists of a list of internalizing and externalizing behaviors, presented as a checklist on which the teacher indicates the presence or absence of the behavior. The CFI has two subscales--Adaptive and Maladaptive Behavior--which contain items rated on a 5-point Likert-type scale. The Adaptive subscale includes items like following established classroom rules and initiating positive social interactions with peers. The Maladaptive subscale includes such behaviors as refusing to participate in games and activities with other children and using coercive tactics to force the submission of peers.

Only SSBD Stages One and Two were used in this study. The third stage includes a 15-minute observation of student behavior in the classroom and on the playground to provide observational data on students' actual behavior; however it is more time and resource intensive than could be accommodated. Other researchers have used only Stages One and Two of the SSBD and found that the students identified were at risk for EBD (Caldarella, Young, Richardson, Young, & Young, 2008; McKinney, Montague, & Hocutt, 1998; Walker, Cheney, Stage, & Blum, 2005).

A letter was distributed to all teachers one week before screening, providing information about the SSBD and descriptions of internalizing and externalizing behaviors. Teachers completed the instrument during a weekly staff meeting. Forms were scored, and students ranked according to severity, based on the procedures outlined in the SSBD manual.

Student selection. The results of the SSBD provided a list of students who were likely to benefit from mentoring, but identified more students than could be served by the program. A part-time mentoring coordinator and the school principal collaborated to decide which students would be most appropriate for mentoring based on the students' needs (e.g., greater risk-higher priority) and characteristics of available mentors (e.g., schedules and experience levels). Since the study was to target at-risk students in the "secondary" PBS level, students already receiving special education services under EBD classification were not considered. Consent forms with a cover letter from the school

principal were distributed to parents of the selected students. Of the 19 parents contacted, 16 (84%) consented to having their child receive mentoring, with 3 (16%) stating they did not believe their child needed a mentor.

SSBD mean scores of student participants are represented in Table 2. Using a one sample *t*-test, SSBD scores for student participants were compared to normative means for students not at risk, as reported in the SSBD manual (Walker & Severson, 1992). The SSBD mean scores for the student participants indicated significantly higher Critical Events ($t = 6.35$, $p < .001$) and Maladaptive Behavior ($t = -15.41$, $p < .001$) scores and significantly lower Adaptive Behavior ($t = 7.45$, $p < .01$) scores, suggesting that these students were at risk for EBD.

Table 2

SSBD Mean Scores for Student Participants Compared with Norms for Students not at Risk

	Student participants		Students not at risk		
SSBD subscale	Mean	SD	Mean	SD	t
Critical Events	2.86	1.61	.12	.46	6.36*
Adaptive Behavior	33.79	5.22	55.29	5.45	-15.41*
Maladaptive Behavior	28.50	7.60	13.37	3.84	7.45*

*p<.001

Mentor recruitment and selection. The mentoring coordinator and school principal were responsible for mentor recruitment. Mentors were sought from a variety of organizations including the partnering university, parent teacher association, nearby retirement communities and senior volunteer groups. Prospective mentors were asked to complete an application consisting of basic contact and demographic information and a brief interest questionnaire to help match them with students. Applicants were interviewed and their references checked. Attempts were made to evaluate prospective mentors regarding their dependability, emotional warmth, and ability to form a strong relationship with youth (Spencer & Rhodes, 2005). Applicants were informed that they would be expected to meet with an elementary school student for the remainder of the school year once a week for 45-50 minutes (though frequency and time could vary based on individual teacher schedules and student needs).

As part of the application process, mentors were asked a series of questions. When asked why they wanted to mentor, most reported a desire to help children and serve the community. Some indicated they wanted to repay help they had received when young. Many cited a personal belief in mentoring. Personal strengths noted by mentors on their applications included being patient, being a good listener, being positive, and enjoying children. All mentors had previous experience working with youth, either in schools, civic organizations, or as parents. When asked what they hoped to gain from the mentoring experience, about half anticipated benefits to their own life (e.g., a sense of peace, satisfaction, opportunity to interact with youth). The other half emphasized an opportunity to make a difference in a child's life such as improving student's self-esteem, helping them learn new social skills, and achieve

their potential.

Mentor training. The mentoring coordinator was responsible for training mentors. Training included an orientation during which the school principal extended a welcome and provided basic school information (e.g., where to park, building layout, school calendar). Mentors were informed that they could meet with students in a variety of public locations around the school, including hallways; classrooms; library, art, music, and computer rooms; playground.

The next phase of training provided an explanation of mentoring and instructions, including safety concerns such as not being alone with students and meeting only in public locations in the school. The coordinator explained the goals and mechanics of the program, including its fit within the school's larger school-wide PBS initiative. Mentors were asked to be positive role models and keep confidences unless students' safety was compromised. Mentors were also informed about how students were selected and how matches were made.

Mentors were asked to develop relationships of trust with their students and help them to set goals such as making more friends or improving academics. Mentors were also encouraged to talk with their student's teacher for direction in identifying areas in which help was needed, work with the mentor coordinator whenever they had questions or needed suggestions, and notify the school if unable to attend a mentoring session.

A mentoring manual was distributed and reviewed to provide consistency in the training. The following areas were included in the manual: communication skills, social skills, goal setting, appropriate and inappropriate mentor behaviors, and suggested mentor activities. Training also emphasized the following guiding principles.

1. Mentors are prepared with activities, but remain flexible, asking thoughtful open-ended questions to guide mentoring sessions.
2. Students do most of the talking.
3. The goal is to build relationships, not necessarily get through a prescribed agenda or curriculum.
4. Mentoring is fun, and time together is enjoyable.

Bimonthly mentor support meetings were held, with agendas determined by the mentoring coordinator, including suggestions and requests from mentors. Typically mentors shared their experiences and brought up topics on which they wanted to know more. Meetings often focused on suggestions for building mentoring relationships, ideas for activities, and review of available mentoring resources.

Mentor student matching. Mentors and students in this program were matched through a collaborative effort between the school principal and mentoring coordinator. Matching of mentors and students is often based on similarity of interests, with the goal of establishing closer, more supportive relationships (Herrera et al., 2000). Attempts were made to assign students with greater need to mentors with greater experience and ability, based on subjective assessment by the school coordinator and school principal, as has been done by others (Furano, Roaf, Styles, & Branch, 1993). To this end, information about mentors was gathered from their application forms, interviews, and reference checks, as well as interactions with the mentoring coordinator. The school principal provided information about students from school records, teacher reports, and interactions with students and their families.

Mentoring sessions. Mentoring began in December and was completed by the end of the school year the following May. The number of sessions per mentor averaged 14.24 (SD = 5.53). Some mentors were able to visit their students more

frequently (e.g., twice per week), while others, due to schedule conflicts, were unable to visit their students every week.

Teachers provided background and direction to help mentors meet each student's needs. They identified specific academic or social areas where students needed help, often providing suggestions and materials to assist the mentors. The teachers also coordinated scheduling for students' time out of class so that mentoring sessions would not interfere with students' academic progress.

Mentors were encouraged to call the school to ensure that their student was in attendance on the day of their planned visit. Mentors signed in at the school office at the beginning of each visit. While the sessions and activities were somewhat varied, they often followed a similar format. The first 10 minutes were spent checking in, finding out how the student was doing, and asking about progress the student was making towards goals. After check in, time was spent working toward goals by participating in activities such as practicing skills, role playing, reading together, socializing, and playing games. For example, if a student had a social goal of appropriately expressing anger, the mentor might work with the student to identify specific behaviors to learn and practice, suggesting the steps to these behaviors (e.g., counting to 10, taking three slow deep breaths, telling the person in a calm voice why you feel angry). During the last few minutes of the session, mentors reviewed what had occurred during the visit, encouraged their student to continue making progress on goals, and talked about what they might do during their next visit. The mentor then took the student back to the classroom and returned to the office to sign out and make an entry in a mentoring journal, documenting the session's activities, and perceived progress towards goals.

Mentor supervision and support. Since mentoring sessions occurred in public locations, they could be observed by the school principal, teachers, and other school staff. The school secretary served as an additional support for the program, helping to welcome and monitor the mentors (reminding them to sign in and out) and providing logistical support (e.g., informing mentors of the attendance status of students, directing them to available locations where they could meet with students).

Measures

Teachers completed the School Social Behavior Scales-Second Edition (SSBS; Merrell, 2008) and parents completed the Home and Community Social Behavior Scales (HCSBS; Merrell & Caldarella, 2008). These are companion instruments designed to measure social competence and antisocial behaviors of students in kindergarten to 12th grade. Both are 64-item Likert-type rating scales which take 15-20 minutes to complete. Evidence supporting the reliability and validity of these instruments are presented in their respective user guides (Merrell; Merrell & Caldarella).

Measures of student academic behaviors were obtained from existing school records. Student grades in reading skills, reading comprehension, writing expression, spelling, and math were obtained from report card ratings by teachers. Students' homework completion (i.e., turning in completed assignments) and citizenship (i.e., appropriate social skills and interactions with peers and adults) ratings are also contained in these records. Teachers use a 4-point Likert-type rating scale (4 = advanced, 3 = proficient, 2 = progressing, 1 = standards not met) to record whether students are meeting their grade

level expectations in these areas. Students' school attendance records were also examined.

At the end of the school year mentors, students, parents, and teachers were also asked to complete an end-of-program survey regarding their perceptions of the mentoring program to provide a measure of social validity (to ensure that the program was of social importance to the participants) and to assess their satisfaction. These surveys also provided participant feedback to be used in program improvement (see Dappen & Iserhhagen, 2005). The surveys included questions asking about perceptions of the program and willingness to participate again the following school year. An open-ended "comments" section was also included.

Evaluation

The mentoring program was evaluated using a quasi-experimental, one-group, pretest-posttest design (Shadish, Cook, & Campbell, 2002), since the school principal was opposed to using a control group as is often the case in public school settings (Greene, 2003). Statistical analyses consisted of paired sample *t*-tests and Cohen's *d* effect sizes using teacher and parent ratings of students' social behaviors, as well as measures of students' academics and attendance. Since mentoring started in December, data on students' performance during the first half of the school year could be compared with data from the last half of the year. Qualitative analysis of comments made by participants on the end-of-program survey was conducted by two researchers who (a) independently reviewed the comments, (b) coded them for common themes, (c) compared their results, (d) agreed on a final set of common themes, and (e) calculated percentages of respondents whose comments fit the themes (Miles & Huberman, 1994).

Results

The results, as represented in Table 3, suggest that after participation in the mentoring program, teacher ratings of students' behaviors changed in a therapeutic direction: SSBS social competence ratings increased significantly ($t = 3.86$, $p < .01$) with a large effect size ($d = .83$), while ratings of antisocial behaviors decreased significantly ($t = -2.92$, $p < .05$) with a moderate effect size ($d = .60$). Parent ratings of student behaviors on the HCSBS also changed in a therapeutic direction with small ($d = .13$) to moderate ($d = .45$) effect sizes, however these changes were not statistically significant.

Table 3

Pre/post Comparisons of Teacher (SSBS) and Parent (HCSBS) Ratings of Student Behaviors

	Pre-test		Post-test			
	Mean	SD	Mean	SD	t	d
SSBS (N = 16)						
Social Competence	44.00	6.43	49.75	7.40	3.86**	.83
Antisocial Behavior	58.94	9.43	53.00	10.42	-2.92*	.60
HCSBS (N = 12)						
Social Competence	49.27	8.34	52.82	7.41	2.00	.45
Antisocial Behavior	48.25	7.59	47.17	8.60	-0.75	.13

* p<.05, **p<.01

Academics and Attendance

As can be seen in Table 4, teacher ratings of student academic behaviors also increased significantly ($t \geq 3.56$, $p < .01$) following completion of the mentoring program, with large effect sizes ranging from .88 to 1.71 in all academic subjects. Results also indicated significantly improved ratings of student's homework accountability ($t = 3.29$, $p < .01$) and citizenship ($t = 3.63$, $p < .01$) with large effect sizes ($d \geq 1.0$). Students' absences increased significantly ($t = 2.27$, $p < .05$), with a moderate effect size ($d = .72$), while tardy rates decreased significantly ($t = -2.42$, $p < .05$), with a small effect size ($d = .36$).

Table 4
Pre/post Comparisons of Teacher Ratings of Student Academics and Attendance

	Pre-test		Post-test			
Subject	Mean	SD	Mean	SD	t	d
Reading Skills	2.10	0.76	3.07	0.62	6.12***	1.40
Reading Comprehension	2.10	0.76	3.20	0.70	5.98***	1.50
Writing Expression	1.77	0.56	2.80	0.64	6.55***	1.71
Spelling	2.33	1.04	3.20	0.94	4.03**	.88
Math	2.27	0.79	3.00	0.65	3.56**	1.00
Homework Accountability	1.87	0.63	2.67	0.81	3.29**	1.10
Citizenship	2.61	0.73	3.21	0.43	3.63**	1.00
Absence	2.44	2.22	4.19	2.59	2.27*	.72
Tardy	8.63	9.05	5.63	7.17	-2.42*	.36

*p<.05, **p<.01, ***p<.001

End of Program Surveys

Student perceptions. Of the 14 students (87%) who completed the end-of- program survey, 8 (57%) indicated that their mentor was a nice person who became a friend, while another 7 (50%) indicated that their mentor had helped them solve problems or complete homework. Help with academics was indicated by 10 students (71%) as the most important part of having a mentor. The majority (71%) of students also said there was nothing they would change about the program, though 2 (14%) stated a desire to have their mentor visit more often. Responses to the open-ended comments section included the following: "I should have had her since 2nd Grade," "I'm glad [the program's] here," and "She cares." All students indicated they wanted to be

mentored again the following school year.

Parent perceptions. The end-of-program survey was completed by 12 parents (75%) all of whom reported valuing the contact they had with their child's mentor. Four parents (33%) indicated that their child appeared to enjoy having a mentor and 7 (58%) reported interest in having a parent/family night to meet their child's mentor and learn more about the program. Half of the respondents reported there was nothing they would change about the mentoring program, while the remainder indicated they would have liked more information about the mentoring activities. Of the parents who responded to the survey, 10 (83%) expressed a desire to have their child mentored again the following school year, while 1 (8%) was unsure, and 1 did not want further participation. Responses to the open-ended comments section included the following: "I would love you to contact me [next year]" and "It was worth it."

Teacher perceptions. Of the 10 participating teachers, 8 (80%) completed the end-of-program survey. All noted valuing the individual attention students received from the mentors, and 6 (60%) perceived that their student seemed happier or more self-confident after participating. All teachers reported that they wanted more contact with their students' mentors, though the amount of desired contact ranged from twice a week to once a month; 3 (30%) wanted the program to begin earlier in the school year. Responses made to the open-ended comments section included the following:

1. "Sometimes it is hard to find an hour time slot that works for both the mentor and the teacher's schedule with curriculum [students] need to be learning."
2. "Some of the mentors haven't let me or the students know when they can't come. I've also forgotten to let them know when the student is absent or we go on fieldtrips…better way of communicating would help."

Mentor perceptions. Of the mentors who participated in the program, 12 (80%) completed the end-of-program survey. Most were pleased with the personal aspects of their experience: 6 (50%) felt they had made a difference in their students' lives while another 5 (42%) felt they had gotten to know their student well and made a friend. Some suggestions reflected ways the program could be improved: 9 (75%) would have liked more contact with their student's parents, 4 (33%) would have liked more contact with their student's teacher, and 4 mentioned that having more information about student needs would have helped them. When asked if they would like to participate in the mentoring program again, 9 (75%) of the mentors stated that they would, while 2 (17%) stated they would not be available and thus were unable to participate. Responses made to the open-ended comments section included the following:

1. "[I appreciated] the opportunity to interact with, perhaps help, the younger generation."
2. "I really enjoyed getting to know my student."
3. "[Student] touched my life for good."

Discussion

Results of the evaluation support mentoring as a part of a targeted secondary level PBS intervention for students at risk for EBD. Consensus from parent and teacher ratings suggest that participation in the program was associated with improved social competence, decreased antisocial behaviors, and improved academic behaviors, though teachers noted more of these improvements than did parents. Student tardy rates also decreased over the course of the intervention. In addition, student, teacher,

parent, and mentor responses to the end-of-program surveys suggested that, as a whole, participants were pleased with the mentoring experience. Based on the principle of triangulation (Jick, 1979) the findings were consistent regarding the positive effects of the program. It was somewhat surprising that student absences increased following implementation of the program. However, school personnel noted that absences for all students tend to increase during the second half of a typical school year (the time of program implementation) due to seasonal illnesses (e.g., cold, flu).

The results of the evaluation are similar to those of Keating et. al. (2002) who found decreased ratings of internalizing and externalizing behaviors in youth following a more time intensive, community-based mentoring program for students at risk for juvenile delinquency or mental illness. Results of the evaluation also support the findings of Glomb et. al. (2006) who found that homework completion and attitudes towards school improved following participation in a school-based mentoring program for students with learning and attention problems. Finally the results were similar to Ryan et al. (2002) who found school-based mentoring to be an effective intervention for at risk elementary school students who were displaying academic or social/emotional difficulties. However, the current evaluation specifically examined school-based mentoring for elementary school students who were systematically screened and identified as at-risk for EBD.

Challenges Addressed

Recruitment of mentors was the most difficult and time-consuming aspect of the program, partly because many of the individuals invited to participate were already volunteering in other organizations. We found that the best ways to recruit were via personal referrals and through partnerships with local community organizations, as has been the experience of others (Sipe & Roder, 1999). For example, almost half of the mentors were recruited from a women's association at a local retirement community.

Another area of difficulty was getting parents to return rating scales. Complete HCSBS data were available on only 75% of the student participants. Efforts to improve the parent response rate included reminder letters to parents, incentives to students for bringing in the forms, teacher contacts to parents, and home visits.

Some of the mentors were college students, whose frequently changing schedules made it difficult for them to regularly visit their student and attend mentor support meetings. Their absence from the mentor support meetings in particular caused them to be somewhat less connected to the program overall than were the other mentors. Program administrators do not plan to recruit college students in the future. Another scheduling challenge was working with some teachers who agreed to the mentoring program but put limits on times when mentors could meet with students. Mentors of these students had to be flexible and willing to meet with students when teachers were willing to let them out of class.

Results of the end-of-program survey revealed that many mentors would have liked more contact with their student's parents and teacher. Similarly, all teachers expressed a desire to have more frequent contact with their student's mentor. Currently this is being addressed by scheduling more opportunities for these individuals to interact at school. Some students also reported wanting more frequent visits from their mentor. This is being addressed by more closely monitoring the frequency of mentoring sessions and

contacting mentors promptly when they miss a week.

Limitations and Future Directions

Limitations to this mentoring program and its evaluation are recognized. First, the data represent a relatively small group of participants from just one school in the western United States. Future studies seeking to replicate these findings in other schools with students similarly screened and identified as at-risk for EBD would be helpful to confirm the results. Another limitation is that there was no control group for the purpose of comparison. The school principal did not support use of a control group because he wanted all at-risk students to receive some type of services. The lack of a control group makes it difficult to rule out extraneous variables and establish internal validity. Alternative explanations for students' positives changes could include history, maturation, or statistical regression (Gall, Borg & Gall, 2006). Future studies examining school-based mentoring for students at risk for EBD using a wait list control group would help to rule out possible confounding variables.

Duration of the program was another limitation: It lasted only about five months. Such a short time frame is not consistent with best practices for mentoring programs (Dubois et al., 2002). To address this limitation, the mentoring program is currently being started earlier in the year (at the beginning of the second academic term rather than the third). Future studies examining school-based mentoring delivered over a longer period of time for students identified as at-risk for EBD would be helpful.

There were also some limitations regarding the measures used. The use of student grades has some limitations as a measure of student change, given the varying level of subjects taught both across and within classrooms. The use of homework completion as a measure of student progress also has limitations, since the length and difficulty of assignments may vary across classrooms. Future studies of school-based mentoring could remedy this by including standardized, individually administered academic achievement tests to help gauge the potential impact of the program on the academic progress of students at-risk for EBD.

Conclusions

Despite the limitations found in this study, results support the notion of providing students who are at risk for emotional and behavioral disorders with school-based mentors. While students received, on average, just 14 visits over the course of five months, teachers and parents reported improvements in students' social functioning, with teachers also noting improvements in students' academic performance. The satisfaction with the program expressed by parents, teachers, students, and mentors adds credibility and importance to the findings. Results suggest school-based mentoring is a viable strategy to consider for improving the outcomes of students at risk. Steps for those wishing to implement school-based mentoring are highlighted in the Appendix.

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Appendix

Steps for Implementing School-based Mentoring

1. *Getting started*
   - Designate a mentor coordinator with support from others (e.g., teachers, school administrator, staff) and clear roles and responsibilities defined.
   - Form partnerships with community organizations (e.g., universities, service clubs or community groups).
   - Prepare materials for mentor recruitment and training (e.g., mentor applications, parent consent forms, training manuals and presentations).
2. *Mentor recruitment*
   - Present program overview to community organizations or individuals to solicit volunteers.
   - Distribute and review mentor applications.
   - Conduct interviews and reference/ background checks.
3. *Mentor training and support*
   - Schedule initial training sessions.
   - Distribute and review mentor training manual to include;
     - School contact information (e.g., address, phone number, fax, email, mentor coordinator and staff information)
     - School/district calendar
     - Specific goals of the program
     - Suggested activities for reaching program goals

- Conduct ongoing mentor training and support meetings as needed.

4. *Selection of students*
   - Collect teacher nominations.
   - Prioritize students based on need.
   - Distribute letter to parents describing the mentoring program.
   - Collect consent forms from parents.
5. *Match students with mentors*
   - Review mentor applications and student referrals.
   - Match based on student needs and mentor backgrounds.
6. *Mentor expectations*
   - Sign in and out at each mentoring session.
   - Make a short journal entry after each mentoring session.
   - Meet weekly for 45-50 minutes.
   - Meet in a public location in the school.
7. *Teacher expectations*
   - Work with mentors to convey needs of students.
   - Provide release time for mentoring sessions.
8. *Evaluation*
   - Administer pre and post assessments.
   - Administer end of year surveys.
   - Analyze and summarize results.

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