

Gender Differences in Middle School Adjustment, Physical Fighting, and Social Skills: Evaluation of a Social Competency Program

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This study was designed to explore the effects of previous exposure to the Reach Out to Schools: Social Competency Program (SCP) on the middle school adjustment of sixth grade students. SCP is designed to teach children social skills to help them to communicate better, solve problems and build stronger relationships. Students (n = 277), parents (n = 166), and teachers (n = 13) were surveyed. Results show associations between program exposure and the middle school adjustment of girls, according to teacher and student ratings, and on physical fighting among boys, according to their self-reports. Differences were also found for teacher-rated levels of girls' assertiveness and boys' self-rating of self-control.

KEY WORDS: social competency; middle school adjustment; gender differences; physical fighting.

INTRODUCTION

Every year, approximately 3.4 million adolescents make the expected transition from elementary to middle or junior high school in the public school system (Bandeira de Mello & Young, 2000). For many, this transition is accompanied by multiple stressors due to the complexity of the social environment that students encounter. For example, patterns of social interaction change as the student shifts from the stability of one teacher and a constant set of classmates to multiple teachers and a fluctuating set of classmates. These changes may result in increased

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exposure to negative role models and a diffusion of emotional and social support (Elias, Gara, & Ubriaco, 1985). This transition has been associated with increased psychological distress for both boys and girls (Chung, Elias, & Schneider, 1998).

Given the interpersonal nature of these middle school adjustment stressors, some studies have shown support for the importance of social problem-solving skills in the process of adaptation (Elias & Clabby, 1992; Elias et al., 1986; Green & Olendick, 1993; Leonard & Elias, 1993). These skills have been defined in terms of one's ability to resolve problems in a social context, including the ability to interpret social situations, develop insight into the possible obstacles to one's course of action, generate appropriate alternatives, show awareness that goal attainment is not immediate, and show discretion in determining the appropriate time and place to undertake certain actions (Baststich, Elias & Branden-Muller, 1992; Spivack & Shure, 1974, 1976). For young adolescents experiencing a transition into a new school and throughout middle school years, such skills seem to be an important component of adaptive behavior (Elias et al., 1986; Greene & Ollendick, 1993; Mott & Krane, 1994; Platt et al., 1974).

Therefore, it stands to reason that programs designed to increase social problem solving skills would, if effective, ease middle school adjustment. Some programs that are based on social and emotional learning theories show great promise in providing a solid foundation of social skills aimed at helping children to cope with many challenges in their lives (Elias, 1995; Elias et al., 1997). These programs are designed to create safe and cooperative classroom and school environments which promote the intellectual, social and emotional development of children. Nurturing the social and emotional growth of children is expected to increase their capacity to focus on academic pursuits, improve overall psychological health, and reduce the frequency of behavioral disturbances and delinquent acts (Hawkins & Catalano, 1992; Solomon et al., 1992). Evaluations of violence prevention and social competency programs have provided evidence that these programs show promise for preventing violence (Grossman et al., 1997; Hausman, Spivak, & Prothrow-Stith, 1995), reducing antisocial behavior (Elias et al., 1991), improving social adjustment and peer relations (Battistich et al., 1991), and improving the management of feelings (Greenberg et al., 1995).

This study was designed to assess one such program—the Reach Out to Schools: Social Competency Program (SCP)—an elementary school-based primary prevention program. Since 1988, SCP has evolved to combine aspects of the Quality of School Life curriculum (QSL) along with other methods of instruction in social competency skills (Elias & Clabby, 1989; Schelkun, 1987; Weissberg et al., 1980). At the core of SCP is the Open Circle Curriculum, which is delivered to students in grades K–5 in their classroom by their teacher. The curriculum is implemented using the Open Circle format in which students and teacher arrange their chairs in a circle and keep one chair empty to symbolize that the circle is open to anyone. The school year curriculum consists of 42 regular lessons and

up to 33 supplemental lessons which focus on three areas of social and emotional development: communication, self-control, and social problem-solving (Seigle & Macklem, 1997) (see Appendix A). Lessons are designed for implementation at least twice each week for 15–30 minutes, with time given for students to address current classroom issues.

Elementary school teachers are taught how to implement the curriculum in their classrooms during a four day training program (two days in the summer or fall, one in winter, and one in spring), and are provided with in-school consultation throughout the year. This training model instructs teachers on the content of the curriculum and the method of implementation through experiential activities. Teachers are given the opportunity to practice the skill and art of facilitation—the primary pedagogy of SCP. In addition, teachers are encouraged to reflect on their teaching practice and examine their deeply-held beliefs and attitudes which affect their classroom and the school community.

SCP is designed to provide children with structured opportunities to learn relational skills, practice communication, and address interpersonal issues and aims to increase the sense of connection children feel within the classroom and the school. In this way, the curriculum is intended to increase children's sense of being a part of a larger, more caring and cooperative community, thereby enhancing their psychological well-being and decreasing feelings of psychological distress, isolation, and powerlessness. In conjunction with psychological gains, students are expected to gain greater interpersonal skills in cooperation, assertion, empathy, self-control, problem-solving and communication in general, while showing a decline in delinquent and violent acts.

To date, several studies have provided evidence for the beneficial effects of SCP on elementary school-aged children (Black, 1995; Hennessey & Seigle, in submission; Krasnow, Seigle, & Kelly, 1994). Teachers trained in SCP reported that the curriculum fostered in students improved social skills (including empathy, collaborative problem solving, responsibility, and consideration for others), a greater sense of self worth and empowerment, greater classroom participation and time spent on academics, and a reduction in problem behaviors. SCP teachers noted improvements in their own abilities to support students' social development and in their efficacy in relationships with school personnel. Teachers also reported that they felt SCP encouraged a more cohesive and egalitarian environment in which students shared responsibility for class governance.

These preliminary evaluations support the effectiveness of SCP for promoting social skills and improving school climate at the elementary school level. However, these studies relied on informants who had delivered SCP and thus may not have been objective about its impact. Prior evaluation has also not explored the program's long-term impact. The current research was designed to explore some long-term effects of the SCP program by assessing students during the middle school transition period. Specifically, we hypothesized that two or more years of

exposure to SCP would be related to more positive middle school adjustment and to more frequent use of critical social skills. We expected these effects to be pervasive enough to be reported by middle school teachers and parents as well as the students themselves.

METHOD

Subjects

A sample of 277 sixth-grade students from a suburban town in Massachusetts was evaluated in this study. The Massachusetts town was one of over 155 in the Northeast where children have participated in SCP. SCP was well established in this town's elementary school system but had only been delivered to a portion of the students. All 294 sixth grade students in the town were asked to participate but 3 declined, 8 were absent during the administration and parental consent was denied for the other 6. Of the participating students, roughly half were female and most were white (79%), middle to upper class (96% had at least one parent who had gone to college) and from two-parent homes (88%).

In this evaluation, we obtained students' self-perceptions about their middle school adjustment and their social skills. We also obtained teachers' and parents' perceptions of students' adjustment and social skills, in an effort to assess the *observable* differences between students who had SCP and those who did not. We asked all 13 of the sixth grade home room teachers to report on the behaviors of each student. These middle school teachers were in a good position to rate the students since they were not involved in the delivery of SCP and also had ample opportunity to directly compare students' behaviors in the same school environment. We also surveyed the students' parents to see if effects of the program were observable at home as well as in school. One hundred sixty-six parents returned completed surveys, representing a 60% response rate.

Measures

Program Exposure

Exposure to SCP was measured by asking students whether or not they received the program during their kindergarten through fifth grade years. Students' responses were divided into two categories: students who recalled having two or more years of exposure to SCP versus those who recalled having only one or no years of exposure. This division was made based on the idea that innovations, such as the adoption of a new program, often require long-term implementation (18 months or longer) before participants are likely to fully embrace and

understand program concepts (Elias et al., 1997). Hence, those students who reported two or more years of experience were considered the exposed or program group, while those students with only one year or no experience with the program were considered unexposed. There were 96 girls and 95 boys who reported two or more years of exposure to SCP in elementary school. These program-exposed (2 or more years) groups were compared within gender to the 41 girls and 45 boys who were “unexposed” (1 year or less) to the program.

Middle School Adjustment

The students’ reports of their adjustment to middle school were gathered using an adapted version of the Survey of Adaptation Tasks—Middle School (SAT-MS) (Elias et al., 1992). We selected 19 of the original 28 items based on relevance to this evaluation. Retained items address issues related to peer relationships, substance abuse, and conflicts with authority and older students, while dropped items address issues related to academic pressure and difficulty negotiating new school habits. The internal consistency was good for this revised scale ($\alpha = .86$). A composite score was computed for each student from the SAT-MS scale and, since the distribution of this variable was skewed, we created two categories for comparison: problem adjusting (0) vs. no problem (1). In addition, since we were particularly interested in students’ difficulties with getting into physical fights, we examined the item addressing this issue separately: problem with fighting (0) vs. no problem (1).

Teacher reports on middle school adjustment were derived from responses to a single item: “How would you describe each student’s overall adjustment to middle school?” Response categories included four options: poor, fair, good and excellent. Since this item was highly skewed, categories were combined as follows for analysis: poor, fair, and good (0) vs. excellent (1). Parent reports on middle school adjustment were derived from two items: “How well is your child adjusting to middle school?” and “How much does your child like school this year?” Responses were given on a 4-point scale ranging from a low of “not well/much” to a high of “very well/much.” Scores from these two items were combined for analysis ($\alpha = .76$). Since this item was skewed, “very well/much” (1) was compared with all other responses (0).

Social Skills

Gresham and Elliot’s (1990) Social Skills Rating System (SSRS) was administered to assess the social skills of students according to teacher, student and parent perceptions. The SSRS contains items regarding behaviors indicative of social skill level which can be combined into composite and subscale scores. The

student version of this scale includes cooperation, assertion, empathy, and self-control subscales. The teacher version of this instrument contains subscales for cooperation, assertion, and self-control, while the parent version is similar to the teacher version and also includes a responsibility subscale. Response options are never, sometimes, and very often, where higher scores indicate more frequent socially desirable behavior. This measure has previously shown evidence for reliability (α for the teacher subscales = .86–.93; for the parent subscales = .74–.90; for the student subscales = .67–.83), as well as content and criterion-related validity (Gresham & Elliott, 1990).

Procedure

The student surveys were administered by research staff in students' home room classes. Instructions were read aloud to all of the students by research assistants. In a follow-up survey, students exposed to the program were asked open-ended questions about their experiences with the program. The 13 sixth-grade teachers were asked to complete surveys for each of their home room students. Surveys were mailed to the parents of all of the student participants shortly after the student survey was administered.

RESULTS

We conducted correlation analyses to see whether potential covariates were associated with the outcome variables of interest. These included race, residence in a single parent home, and educational level of the child's parents. None were significant, so we omitted them from the regression models in order to conserve degrees of freedom available for parameter estimation. We estimated linear (social skill outcomes) and logistic (middle school adjustment outcomes) regression models separately for boys and girls to examine the relationships between program exposure and outcome variables.

Middle School Adjustment

There was a significant program effect for students' self-rated middle-school adjustment for girls (OR = 3.0, 95% CI = 1.2, 7.4)⁴ but not for boys. This effect was mirrored in the teachers' reports of middle school adjustment (OR = 2.5,

⁴This odds ratio (OR) can be interpreted as follows: Girls with two or more years of program exposure were three times more likely than girls with one or no years of exposure to report no problem in middle school adjustment. A 95% confidence interval (CI) that does not include 1.0 (the null value) is indicative of a statistically significant finding at the $p < 0.05$ level. All reported ORs and CIs can be interpreted similarly.

Table 1. Middle School Adjustment Scores

Variable	Girls-SCP	Girls-no SCP	Boys-SCP	Boys-no SCP
Student composite score ("No problem")	*37.9 (95)	17.1 (41)	27.4 (95)	25.0 (44)
Student "physical fighting" item ("No problem")	90.4 (94)	87.8 (41)	*63.2 (95)	43.2 (44)
Teacher rating ("Excellent")	*59.4 (96)	36.6 (41)	34.0 (94)	25.6 (43)
Parent rating ("Very well/much")	47.3 (55)	37.5 (24)	45.8 (59)	25.0 (28)

Note. Values represent percentages (denominators).
**p* < 0.05, logistic regressions modeled within gender.

95% CI = 1.2, 5.4) for girls only. On the other hand, using the single item about self-reported problems with physical fighting, there was a program effect evident for boys (OR = 2.3, 95% CI = 1.1, 4.7), but not for girls. No statistically significant program effects were found based on parent reports of middle-school adjustment. Percentages of students with positive middle school adjustment outcomes are given separately for girls and boys in the program exposed and unexposed groups in Table 1.

Social Skills

The relationship between program exposure and teacher-rated student assertiveness was significant for girls ($\beta = 2.04, p < .05$), but not for boys. Conversely, significant program effects were detected for boys' self-rated self-control ($\beta = 1.21, p < .05$), and a trend was found for boys' self-rated social skills composite scale ($\beta = 3.63, p = .06$). No program effects based on parent-rated social skills were found.

Caution must be used in interpreting the results obtained for the analyses based on social skills. Since many tests were conducted, it is more likely that a significant difference will be detected by chance alone, thus we can only regard the social skill findings as suggestive. Mean levels of each social skills outcome for girls and boys in the program exposed and unexposed groups are given in Table 2.

DISCUSSION

This assessment of the hypothesized effects of exposure to SCP on middle school adjustment provides promising evidence that this broad-based, primary

Table 2. Social Skill Scores

Variable	Girls-SCP (<i>N</i> = 96)	Girls-no SCP (<i>N</i> = 41)	Boys-SCP (<i>N</i> = 95)	Boys-no SCP (<i>N</i> = 45)
Student Scales				
Composite	59.78 (7.36)	58.74 (7.45)	54.57 (9.06)	50.94 (9.50)
Cooperation	15.96 (2.40)	15.87 (2.36)	15.36 (2.52)	14.62 (2.82)
Assertion	14.26 (2.28)	14.21 (2.34)	13.30 (2.47)	12.85 (2.41)
Empathy	17.22 (2.11)	16.97 (1.97)	15.29 (2.82)	14.67 (3.22)
Self-control	12.13 (2.61)	11.92 (2.69)	*10.51 (2.60)	9.30 (2.98)
Teacher Scales				
Composite	49.05 (8.17)	46.22 (10.50)	41.38 (9.92)	43.56 (9.74)
Cooperation	17.46 (3.32)	16.71 (4.31)	14.88 (4.20)	15.27 (4.50)
Assertion	*14.43 (4.20)	12.39 (5.33)	11.64 (4.19)	12.53 (3.96)
Self-control	17.22 (2.93)	17.37 (3.35)	14.91 (3.85)	15.76 (3.82)
Parents Scales				
Composite	58.29 (7.74)	57.48 (11.50)	58.75 (8.11)	57.11 (8.48)
Cooperation	12.08 (2.67)	12.00 (3.39)	12.18 (3.09)	11.63 (3.41)
Assertion	16.29 (2.61)	16.21 (3.24)	15.89 (2.86)	16.04 (2.46)
Responsibility	14.85 (2.26)	15.45 (3.07)	15.69 (2.17)	14.96 (1.95)
Self-control	14.71 (3.11)	14.14 (4.02)	14.95 (3.34)	14.38 (3.57)

Note. Values represent mean (standard deviation).

* $p < 0.05$, linear regressions modeled within gender.

prevention program is associated with better outcomes in some domains for middle school children who have been exposed to the program for at least two years in elementary school. Interestingly, these effects seem to operate somewhat differently for girls and for boys, who may face somewhat different pressures and challenges in middle school. Specifically, exposure to the program appears to be related to higher levels of assertiveness in sixth grade girls as well as self-perceived and teacher-rated adjustment scores. On the other hand, while adults did not report significant differences in boys' behavior or adjustment, boys exposed to the program *felt* they possessed higher levels of self-control and overall social skills and had fewer problems with physical fighting than other boys. Previous work indicates that the development of social skills and relationships often differs by gender, starting at an early age (Benenson, 1996; Eisenberg et al., 1991; Roberts & Strayer, 1996). While girls are more likely to possess greater verbal and empathy-related skills, boys are often more assertive regarding their own needs (Eisenberg et al., 1987; Litvack-Miller, McDougall, & Romney, 1997; Lloyd & Smith, 1986; Nemeth, 1999).

Findings from this study indicate that relational theory has implications across gender lines since positive outcomes were reported for both boys and girls. Relational theory, which provides the theoretical foundation for the SCP program, purports that the development of mutually growth-fostering relationships is critical to healthy psychological and social development (i.e., there is more to psychological development than individuation) (Jordan et al., 1991). SCP

builds on this theory to promote the development of skills related to problem solving and relationship-building. Interestingly, positive outcomes were gender-specific and pertained to areas of relative vulnerability for each gender. Boys who had SCP perceived themselves to have more self-control and to be less involved with physical fights. Given that both of these items are generally less problematic for girls, they may have had little to gain in these areas. Likewise, girls who had SCP were reportedly more assertive and had better overall middle school adjustment. Being assertive and feeling less anxious or more comfortable about oneself in new surroundings are both skills that are often more elusive to girls than boys. In summary, SCP, and perhaps similar programs, may have differential gender effects which are related to a priori gender differences in social skills.

According to teachers and students' self-reports, girls who recalled having SCP experienced better middle school adjustment than those who did not recall having the program. Additionally, teachers reported that girls who had SCP showed more skills in assertion. Students with higher scores in assertion exhibited an increased ability to make friends, join in activities, introduce her/himself, give compliments or praise, and question rules appropriately. Students who have mastered such skills are more likely to feel a greater sense of social competency and personal efficacy than their peers who are not as assertive. A number of girls noted some ways in which SCP helped them to make critical connections with peers, to voice their own needs and opinions, and essentially, to be heard:

- "I learned to speak out."
- "I learned that it is okay to share your ideas and pieces of work."
- "I learned that it is good to share your feelings and opinions. It will help you understand more complicated things in life."
- "I learned that in order to make things go right when you feel uncomfortable you have to speak up or no one will know something is wrong."
- "I learned that it is important to share your feelings with others when they are bothering you and you don't like it."
- "(SCP) gave me the knowledge and courage to talk problems over with friends and adults."

Students in SCP are taught a number of lessons about self-control, including calming down techniques, understanding feelings, expressing anger appropriately, and various problem solving methods. All of these lessons could help a child to master skills in managing their own behavior and feelings, and could help to prevent a susceptible child from using violence as the way to respond to conflicts. Boys who had SCP said that SCP taught them a number of important skills related to self-control:

- "I learned how to cope with annoyance."
- "Count to 10 to calm down."
- "I also learned how to control my temper if I get upset or mad at a friend."

“. . . to take a deep breath if I get angry.”
 “I learned how to calm down.”
 “I’ve also learned how to control my temper.”

Many factors put adolescents as a whole at risk for social maladaptation and potentially violent behavior—difficulty with developmental transitions, violence in the family of origin, peer pressure/gangs, violence portrayed in the media, substance use/abuse, access to weapons and low socioeconomic status to name a few (Lowry et al., 1995). However, there is much evidence that boys are more likely than girls to express their anger with violence. Starting as early as age five, females tend to be better at peaceful conflict resolution than males (Miller, Danaher, & Forbes, 1986; Ohbuchi & Yamamoto, 1990). A cross-cultural study of adolescents showed that across countries and age groups, girls were more likely than boys to resolve conflicts by employing “dyadic constructive” and “third-party” methods (Osterman et al., 1997). Essentially, females are more likely to negotiate conflicts whereas men are more likely to use threats of force (Gire & Carment, 1993). The fact that boys who had SCP reported that they were less likely to get into physical fights than boys who did not have SCP provides encouragement that SCP, and perhaps other programs like it, might be effective in counteracting these negative influences on boys aggressive behavior. In open-ended responses about the program, boys who had SCP made the following statements about how SCP helped them to avoid fighting:

“I have learned to discuss things without fighting about it.”
 “Talking about verbal fights instead of getting in a physical fight”
 “To talk about your problems instead of fighting”
 “I have learned that trying to not get into a confrontation is a good skill”
 “If you have a problem, you should sit down and talk about it instead of getting into fist fights. It’s a better way to communicate.”

Implications for Future Evaluations

There are some potential confounds to consider in interpreting the results of this study. First, our operationalization of SCP exposure is based on students’ recall of having had the program in elementary school, and not on actual records of participation. (While some record reviews were conducted, and most were corroborated with student recall, in the end these reviews were considered unreliable and were not used for this study.) It is possible that students with better recall, in general, might have greater social skills and adjust better socially than those with a poorer memory. Second, more compliant students (e.g., those who gave a serious effort to provide SCP exposure information) may be rated higher on social skills than are students who do not follow directions completely. Third, it is likely that a number of no-program students were exposed to a number of SCP

principles and skills through students in their school who were experienced with the program. While we were not able to assess the exact impact of this effect, this kind of contamination would only serve to bias our results toward the null. Thus, there may be some differences between the student groups that went undetected due to this confounder. Finally, some students may have been exposed to a broader school culture that was altered due to SCP “saturation” in a school. For example, the culture of a school in which the principal uses SCP techniques with adults, most of the teachers use SCP, and most students are exposed to SCP will be different from that of a school in which only 2 or 3 teachers use SCP and most students are not familiar with the program. Thus students who went to schools with different SCP cultures may have in effect had different levels of exposure to SCP principles. A prospective evaluation or one based on accurate records of program exposure, including school “culture,” is warranted to address each of these issues.

Proponents of SCP claim that the context provided through the curriculum helps children to cultivate healthy relationships and build relational support with other children and adults, which in turn leads to their growth in social awareness and skills. These critical connections should be explored further via process evaluation and qualitative analysis. While assertion and self-control have been singled out in this study as specific skills that SCP can promote, these do not encompass the entire repertoire of skills SCP is designed to strengthen. Further investigation is needed to establish the connections between particular SCP lessons, skill development, changes in behaviors, and perceived social adjustment. Components of the program, as well as timing and dosage, that bring about the most potent change in students should be identified. An examination of diverse populations of students will help to determine whether these effects apply to students with different social class, ethnic and ability-related characteristics.

The findings in this study are based on associational relationships only. In order to provide definitive evidence for causal linkages between these constructs, a carefully controlled, longitudinal study design is warranted. Still, these preliminary results are consistent with a true program effect and are encouraging. These findings are especially potent since they suggest that exposure to SCP in elementary school can have an impact on social adjustment in middle school, even though children are no longer being exposed to the program, thereby boosting the resilience of students facing new social challenges as they enter adolescence.

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