

# A Study of a Violence Prevention Program in Prekindergarten Classrooms

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Prevention programs in schools are one response to youth, community, and family violence. Many of these programs target older children and adolescents. This quasi-experimental study evaluated the preschool curriculum of the Peacemakers program, which was developed by a consortium of social service agencies for implementation in schools. This program takes a holistic approach with children to promote conflict avoidance, conflict resolution skills, and respect for others. There were 101 children in the experimental group and 60 children in the comparison group. Teachers evaluated the children's skills before and after a five-week period, during which the experimental group received the program. Children completing the training showed statistically significant improvements in skills in contrast to the comparison group. Children's improvements did not vary with the child's gender. This study provides some support for the short-term effectiveness of this approach to enhancing the conflict resolution skills of young children. School social workers are in a position to be aware of young children's exposure to family and community violence and of the long-term effects of this exposure and can advocate in their communities for violence prevention programs that begin early in children's lives.

KEY WORDS: *conflict resolution; prekindergarten; preschool prevention program; violence prevention*

Concern about youth, community, and family violence in the United States has led to a focus on violence prevention programs in schools. Violence that permeates our society and occurs in schools ranges from mild to severe and includes behaviors that can cause harm emotionally or physically, including verbal threats and humiliation, social exclusion, physical aggression, and destruction of property (Benbenishty & Astor, 2005). Violence prevention programs that teach conflict resolution and social skills have proliferated "based on the theory that aggressive and violent behaviors are learned and therefore can be affected through education" (Resolving Conflict Creatively Program [RCCP], 2006, p. 2). These programs often target children as they approach or reach adolescence (Botvin, Griffin, & Nichols, 2006; de Anda, 1999; Farrell & Meyer, 1997; Haymes, Howe, & Peck, 2003), because that is when violence in schools and in the community begins to become more problematic for society (Astor, 1995). However, there is evidence that children may benefit from programs that begin as early as

preschool (McMahon, Washburn, Felix, Yakim, & Childrey, 2000; Tremblay, 2006). In addition, programs often target children in public schools in inner-city neighborhoods (for example, Farrell & Meyer, 1997; McMahon et al., 2000). However, research indicates that conflict in schools and families is pervasive, occurring in neighborhoods of all socioeconomic levels (Koepke & Harkins, 2008; Roberts, 2002). Harkins and Doppler-Bourassa (2008) stated, "Unfortunately, violence has continued to increase as we target conflict resolution programs to older children and assume that violence is limited to people in disadvantaged or traditionally conflicted communities" (p. 842).

This study evaluated the Creating a New Generation of Peacemakers program (hereafter, Peacemakers program) for prekindergarten (pre-K) children. The curriculum was designed by community agencies whose missions are to prevent and reduce community and domestic violence. The Peacemakers program uses age-appropriate curriculums to teach children conflict avoidance and resolution skills to

decrease physical aggression, values of respect and tolerance for others, and strategies for dealing with unsafe situations in their schools, homes, and communities. The sample included children who attend Voluntary Prekindergarten programs in private schools in a major metropolitan area in Florida.

## LITERATURE REVIEW

The interaction of a number of subsystems provides the ecological framework for school violence (Benbenishty & Astor, 2005). Cultural, neighborhood, family, school, and child factors provide the context for violence in the schools. These factors include higher rates of violence in particular racial or ethnic minority groups, levels of poverty and crime in a neighborhood, violence and parenting discipline practices within the family, negative social climate or large class sizes in a school, and individual factors such as male gender and younger ages (Benbenishty & Astor, 2005).

The belief that violence prevention programs should target young children is based on factors related to this ecological model. Family, school, and community violence have become increasingly pervasive and affect young children and those approaching adolescence (Fraser, 1996; Tuma, Loeber, & Lochman, 2006). Studies on school violence indicate that there is an inverse relationship between age and levels of victimization in relationships, such as bullying, with the highest rates of bullying reported in early elementary grades (Benbenishty & Astor, 2005). Furthermore, statistics indicate that households with domestic violence are disproportionately likely to have children under the age of five (Rossman, Rea, Graham-Bermann, & Butterfield, 2004). Young children who witness domestic violence have higher incidences of posttraumatic stress disorder, fears, and aggressive behaviors, which contribute to poor developmental outcomes. Research indicates that patterns of physical and relational aggression that can lead to teenage violence can be identified early in a child's life (Côté, Vaillancourt, LeBlanc, Nagin, & Tremblay, 2006; Crick, Ostrov, & Werner, 2006; Fraser, 1996). Interventions in schools that promote conflict resolution and

healthy relationship skills are seen as a key violence prevention strategy (Jaffe, Wolfe, Crooks, Hughes, & Baker, 2004).

Research on programs to prevent violence by teaching conflict resolution and relationship skills to children, rather than adolescents, has generally focused on elementary school children, sometimes starting in kindergarten. Some studies with elementary children suggest that younger children may benefit more than older elementary school-age children (RCCP, 2006). Flannery et al. (2003) found that children in kindergarten through second grade were rated by teachers as showing significant changes in social competence in the first year of the intervention in contrast to the teacher ratings of control group students. These gains in prosocial behaviors were maintained in follow-up studies through year 2, the end of the reporting period. One study focused only on kindergarten children (Aram & Shlak, 2008). This quasi-experimental study of the Safe Kindergarten program found that children in the experimental group demonstrated prosocial and conflict resolution skills to a greater extent than did the children in the comparison group.

Nevertheless, even with the proliferation of preschool and pre-K programs, there has been little research on violence prevention education for preschool children (Tremblay, 2006). The study of the Second Step program (McMahon et al., 2000) is an exception, because it included preschool and kindergarten children. McMahon and colleagues compared outcomes for preschool children with those of kindergarten children and found that preschool children as young as three showed pretest-posttest gains in knowledge and behavior changes per researcher classroom observations but not per teacher report. The study did not use a comparison group.

Research also indicates that the level of prosocial skills and physical aggression and children's responses to violence prevention programs may vary with gender. In some studies, teachers have rated elementary school boys (Flannery et al., 2003) and preschool boys (McMahon et al., 2000) as more aggressive and possessing lower prosocial skills than girls. In a study of teacher-child relationships in kindergarten through

fourth grade (Koepke & Harkins, 2008), teachers rated their relationships with boys as more distant and having more conflict than their relationships with girls. Some studies have indicated that boys and girls benefit equally from prevention programs (Aber, Brown, & Jones, 2003; Flannery et al., 2003; McMahon et al., 2000). Other studies show differential benefits for boys and girls or greater overall benefits for boys (de Anda, 1999; Farrell & Meyer, 1997; RCCP, 2006; Second Step Violence Prevention, 2006). These findings suggest that gender differences may relate to the types of skills targeted and measured. Farrell and Meyer commented that they expected that the program they evaluated might benefit boys more than girls because the curriculum did not target indirect aggression expressed through relationships, which is often more prevalent with girls. A qualitative study with girls ages 11 to 17 (Molnar, Roberts, Browne, Gardener, & Buka, 2005) indicated that, to promote protective factors for girls, violence prevention programs need to enhance the development of prosocial relationships. Crick et al. (2006) suggested that girls are at risk of behaving aggressively within relationships and suggested that programs take a broad prevention approach to target not only physical, but also relational aggression.

The study of the Peacemakers program for pre-K children presented here contributes to research on violence prevention programs in the schools. Rather than focusing on adolescents or elementary school children, the Peacemakers program implements primary prevention with preschool-age children. The Peacemakers program is a developmentally appropriate curriculum that focuses on preventing relational and physical aggression. This study institutes a "meaningful evaluation" (Flannery, 1998) by using quasi-experimental methods to evaluate a curriculum that has been used for some time, although evidence of its effectiveness had been only anecdotal.

#### **DESCRIPTION OF PROGRAM AND STUDY OBJECTIVES**

The Peacemakers program was developed by a consortium of nonprofit social service agencies in Pinellas County, Florida, as a program imple-

mented in schools to teach conflict avoidance, conflict resolution skills, and respect for others. This program consists of three curriculums developed in this county over a decade. Each curriculum is developmentally appropriate in its structure, goals, and activities. There are specific curriculums for preschool (Dennis, Leotti, Payne, & Pitts, 1998), elementary school (CASA, The Haven of RCS, Operation PAR, & Community Pride, in press), and middle school students (Atkins et al., 2002). The two domestic violence agencies in the county spearheaded the development of these curriculums as part of the agencies' missions to promote peaceful interactions and prevent violence in the community. Staff of the south county domestic violence agency approached a university researcher about evaluating the Peacemakers program. The agency and the researcher decided to begin the effectiveness research by focusing on the preschool curriculum because of the importance of starting violence prevention with young children (Tremblay, 2006).

The preschool curriculum was designed to be used with kindergarten and pre-K children (a copy of the preschool Peacemakers curriculum can be obtained for \$100 by contacting Ms. Kris Nowland, director of Youth Education and Support Services at CASA, P.O. Box 414, St. Petersburg, FL 33731; e-mail: knowland@casa-stpete.org.). It was the first of the three curriculums to be developed and has been used in local schools since 1998. In recent years, more than 2,000 preschool and kindergarten children in the county received the Peacemakers program each year. The objective of this research was to implement a pilot evaluation of the preschool Peacemakers program's effectiveness. This study is the first step toward understanding the effectiveness of the entire Peacemakers program approach to promoting nonviolence.

The Peacemakers program takes a holistic approach to violence prevention. It focuses on "increasing positive skills and competencies [in relationships] as well as reducing aggressive and other problem behaviors" (Flannery et al., 2003, p. 304). The topics for each session, the peacemaking skills taught, and the lesson goals are presented in Table 1. The curriculum

**Table 1: Topic, Skills, and Goals for Peacemaker Preschool Curriculum**

| Topic                             | Skill                    | Goal                                                                                                                                                  |
|-----------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Let peace start in your heart  | Let's listen; let's talk | To understand the importance of being kind, caring, sensitive, and loving to others at school, at home, and in the community                          |
| 2. Only one you ... only one me   | Walk away                | To increase awareness of one's uniqueness and help children accept and respect individual differences and be independent thinkers and decision makers |
| 3. I care how you feel            | Stop, sit, and think     | To learn to identify their own inner feelings and those of the people around them to maintain self-control and resolve conflict                       |
| 4. Staying safe in troubled times | Use your words           | To identify safety options for when others around them are not using peacemaking skills                                                               |
| 5. This is our world              | Sharing is caring        | To understand our personal responsibility for the global environment by sharing the earth with plants and animals                                     |

Source: Dennis, K., Leotti, L., Payne, P. M., & Pitts, S. (1998). *Creating a new generation of peacemakers: Turning conflict into peace in preschools and kindergartens*. Pinellas County, FL: CASA and the Haven of RCS.

promotes children's sense of self-efficacy in dealing with conflict, both physical and relational, in the classroom and in their wider environment. The Peacemakers program was developed on the basis of behavior learning theory and empowerment perspectives and is designed to be developmentally appropriate for young children. Its holistic approach to violence prevention and techniques to empower children are highlighted in the program description that follows.

The preschool curriculum (Dennis et al., 1998) involves five one-hour sessions, usually presented over a five-week period. Two trained facilitators from the agencies that developed and sponsor the program deliver the sessions together. Sessions are structured as follows:

- *Opening Peace Circle*—Each lesson begins with the children in a circle on the floor being called by name by a facilitator to receive their Peacemakers name tags. The facilitator asks the children to recount the last week's lesson and discuss their experiences during the week. For example, children often relate how they sat at the peace quilt to talk out a conflict with a peer or with the teacher. The lesson for the week is presented using visual aids and involving children in providing their own ideas and solutions to situations. For example, to present the topic for week 3, "I care how you feel," children demonstrate facial expressions for different feelings

and respond to pictures of children expressing emotions by discussing how the pictures make them feel. Children come up with ways they change negative feelings into positive ones. Children practice such techniques as "counting to 10" and "breathing for relaxation" as ways to "stop, sit, and think." "I messages" are introduced and practiced as a way to communicate feelings. To present the topic for week 4, "Staying safe in troubled times," a story and discussion with the children focuses on how to deal with situations when others, including adults, are not using peacemaking skills. Children identify how they know in their body when they do and do not feel safe. They discuss telling a grown up or going to a safe place when they feel in danger. Children identify places that feel safe to them at school, in the community, and in their home, which are illustrated with pictures shown by the facilitator. Children also identify adults who are safe to talk to and activities, such as listening to music, that help them feel more secure.

- *Activity*—The lesson is reinforced by an individual or small group activity. The first week, for the lesson "Let peace start in your heart," each child designs a square for the classroom's Peacemakers quilt, which remains in the classroom during and after the five-week program so children can sit by it with another child or adult to talk out conflicts. Other weeks, children take

the product of their activity home. For week 3, children make feelings puppets to illustrate the feelings of their choice. For week 4, they draw a picture of a place or a person in their home or neighborhood that makes them feel safe and secure. The teacher and facilitators help each child come up with safety plans.

- *Closing Peace Circle*—Each lesson ends with the K. C. (kind and caring) dog puppet interacting with the children in their group circle to reinforce the skills from the lesson. Children become very attached to K. C. through the course of the Peacemakers program. The puppet and facilitator act out a situation in which K. C. usually does not know how to use his peacemaking skills. The children are quite vocal in correcting him and telling him what he needs to do, such as “talk out” a situation, “walk away,” or “stop, think,” and count to 10. In a closing exercise, K.C. asks the children to identify puzzle pieces illustrating skills from each preceding lesson and the current one. The puzzle is displayed in the classroom. The completed circular puzzle remains in the classroom at the completion of the program, and children receive a small one to take home.

Teachers and parents are aware of all the skills taught and are encouraged to reinforce them with the children. Teachers are required to be in the classroom during the Peacemakers sessions and are asked to focus on the skills and complete some tasks between the weekly Peacemakers sessions, such as prompt children, if necessary, to use the Peacemakers quilt to work out conflicts with others. Parents receive materials about the program before the first lesson as well as weekly summaries of each lesson with suggestions for home activities, including books to read to the children.

This research to evaluate the Peacemakers program for preschool children investigated the following research hypothesis and question: Hypothesis: Children who have completed the five-week Peacemakers course will show a greater change in their use of conflict avoidance

and conflict resolution skills and in their ability to show respect for others (that is, peacemaking skills) over the five-week period as reported by their teacher than children who have not completed the five-week course. Question: Are there variations in children's responses to the program by gender?

## METHOD

This study used a pretest–posttest, quasi-experimental design. The experimental group children received the five-week Peacemakers program training. A comparison group of children of similar ages and demographic characteristics received no Peacemakers program training. Teachers completed a brief questionnaire on peacemaking skills used by each child in the experimental and control groups at the beginning and the end of the five-week Peacemakers program period. This study passed an expedited review of the university Institutional Review Board. Parents' of all experimental and comparison group children gave written informed consent.

## Participants

Random assignment was not possible in this study. All children in the experimental group came from pre-K classrooms in private schools that were scheduled to receive the Peacemakers curriculum during the study period, spring and summer 2007. Because demand for the program is high, facilitators provide the program in each school about every other year. Pre-K classrooms that had received the Peacemakers curriculum in the preceding year but would not be receiving it in the current year were used for the comparison group. Public school pre-K classrooms were not used for this initial study because of time constraints given the lengthy permission process required by the local school board. Only pre-K children were sampled to control for previous exposure to the program for both the experimental and the comparison group, as a kindergarten child could have had the program the previous year.

There were 101 children in the experimental group who received the Peacemakers program and 60 children in the comparison group who

did not receive the Peacemakers program. The experimental group came from 15 different classrooms in 11 schools, and the comparison group came from 16 different classrooms in 10 schools. It was evident that participation rates in experimental group classrooms in which the teacher had experienced the Peacemakers program previously were higher than in classrooms of teachers who were participating in the program for the first time and in the comparison group classrooms.

As is evident on Table 2, racial or ethnic diversity was low for both the experimental and the comparison groups, with 74 percent and 87 percent being non-Hispanic white children, respectively. This sample was drawn from classes that are part of Florida's Voluntary Prekindergarten program, which is open to all children. However, the low diversity may have been due to the fact that the sample was drawn from private, not public, schools. Public schools in this county are 64 percent non-Hispanic white (Pinellas County Schools, 2007).

The experimental and comparison groups were statistically significantly different in one demographic characteristic, age of children

[ $t(60.17) = 2.67, p = .01$ ]. The comparison group was younger ( $M = 4.80, SD = 0.48$ ) than the experimental group ( $M = 5.00, SD = 0.14$ ). Most of the experimental group children were selected in the spring, and most of the comparison group children were selected in the summer. During the spring, the pre-K classes include primarily five-year-old children, whereas during the summer, some four-year-old children move into pre-K classes to begin the year.

Measures

Facilitators of the preschool curriculum had been using a pretest–posttest developed specifically to measure skills taught in the Peacemakers program (see Table 1). The form had recently been adapted to include a 10-point, rather than a four-point, Likert-type scale to increase the variability of the scores. This study used the agency's form for the experimental and comparison groups. The form includes some basic demographic information about the child (race or ethnicity, gender, and birth date) and statements describing the five peacemaking skills taught in the curriculum. Teachers ranked the

| Table 2: Demographic Characteristics of Children in Sample (N = 161) |                   |      |                  |      |  |
|----------------------------------------------------------------------|-------------------|------|------------------|------|--|
| Characteristic                                                       | Peacemakers Group |      | Comparison Group |      |  |
|                                                                      | n                 | %    | n                | %    |  |
| Gender                                                               |                   |      |                  |      |  |
| Boys                                                                 | 52                | 51.5 | 30               | 50   |  |
| Girls                                                                | 48                | 47.5 | 30               | 50   |  |
| Missing                                                              | 1                 | 1.0  | 0                | 0    |  |
| Total                                                                | 101               | 100  | 60               | 100  |  |
| Age (years)                                                          |                   |      |                  |      |  |
| 4                                                                    | 2                 | 2.0  | 13               | 21.7 |  |
| 5                                                                    | 99                | 98.0 | 41               | 68.3 |  |
| 6                                                                    | 0                 | 0    | 2                | 3.3  |  |
| Missing                                                              | 0                 | 0    | 4                | 6.7  |  |
| Total                                                                | 101               | 100  | 60               | 100  |  |
| Race/Ethnicity                                                       |                   |      |                  |      |  |
| White                                                                | 75                | 74.3 | 52               | 86.7 |  |
| African American                                                     | 7                 | 6.9  | 1                | 1.7  |  |
| Latino                                                               | 8                 | 7.9  | 1                | 1.7  |  |
| Asian                                                                | 2                 | 2.0  | 3                | 5.0  |  |
| Multiracial                                                          | 9                 | 8.9  | 3                | 5.0  |  |
| Total                                                                | 101               | 100  | 60               | 100  |  |

children as to "how well" they exhibited each behavior on a scale ranging from 1 = never to 10 = every time. The pretest alpha reliability coefficient with all five items was .89 for the experimental group and .91 for the comparison group. The posttest alpha reliability coefficient was .93 for both the experimental and comparison groups. This indicates high internal consistency for the use of this scale with both groups. This scale was used because of its familiarity to those participating in the research, and it did not have established validity. It could be said that this scale had face validity in terms of its assessment by the researcher, CASA staff, and teachers as measuring the skills specifically targeted by the Peacemakers curriculum, though this may not be considered validity "in the technical sense" (Kerlinger & Lee, 2000).

### Procedures

Information about the study was sent home with all children in the experimental and comparison group classrooms. All children in the experimental group received the Peacemakers curriculum and were rated pre- and postprogram by their teachers, but only those whose parents signed consent forms participated in the research. As is the normal routine for this program, the Peacemakers program facilitators provided teachers in the experimental classrooms with the pretests and posttests at the time they were to be completed and retrieved them when they were done. Teachers routinely complete the pretests while children are receiving their first Peacemakers lesson and complete the posttests within one or two weeks of completion of the program. In the comparison classrooms, teachers only completed pretests and posttests at the beginning and end of the five-week period for those children who had parental consent. The coordinator of the Peacemakers program, a former facilitator familiar to most of the teachers, dropped off and retrieved the forms at the beginning and at the end of the five weeks.

Statistical analysis using SPSS involved independent and paired *t* tests to compare pretest and posttest scores between the experimental and comparison groups and the effects of the child's gender on the scores for the experimental

group. Analysis of covariance (ANCOVA) was used to compare the pretest and posttest scores between the experimental and comparison groups to control for age differences.

## RESULTS

### Results for Experimental and Comparison Group Children

It was expected that children who had completed the five-week Peacemakers course would show a greater change in their use of conflict avoidance skills, use of conflict resolution skills, and demonstration of respect for others over the five weeks, as reported by their teacher, than children who had not completed the five-week course. This was found to be true. The difference in scores from pretest to posttest was greater for the Peacemakers children compared with the comparison group children [ $t(148.25) = 5.98$ ,  $p < .001$ ] (see Table 3). The effect size ( $\eta^2 = .19$ ) indicated that being in the experimental group, as opposed to the comparison group, accounted for about 19 percent of the variance in the pretest to posttest change in scores for peacemaking skills.

Additional analyses evaluated the possible confounding influence of the statistically significant differences in ages between the comparison and Peacemakers groups. A preliminary analysis for ANCOVA evaluated the homogeneity-of-slopes assumption. This indicated that the relationship between age and change in scores did not differ significantly as a function of experimental or comparison group [ $F(1, 150) = 0.30$ ,  $MSE = 2.36$ ,  $p = .58$ , partial  $\eta^2 = .002$ ]. With the independent variable being experimental or comparison group, the dependent variable being the mean change in scores from pretest to posttest, and the covariate being age

**Table 3: Independent *t*-Test Results for Group Condition ( $N = 158$ )**

| Group        | <i>n</i> | Pretest-Posttest Difference <sup>a</sup> |           |
|--------------|----------|------------------------------------------|-----------|
|              |          | <i>M</i>                                 | <i>SD</i> |
| Experimental | 99       | 1.4                                      | 1.6       |
| Comparison   | 59       | .06                                      | 1.2       |

<sup>a</sup>Independent samples,  $t = 5.98$ ,  $df = 148.24$ ,  $p < .001$ ,  $\eta^2 = .19$ .

of child, ANCOVA indicated that effect of the independent variable on the dependent variable was still significant when controlling for the age of the child [ $F(1, 151) = 28.50, MSE = 2.35, p = < .001$ ] (see Table 4). The effect size was slightly smaller (partial  $\eta^2 = .16$ ), now accounting for 16 percent rather than 19 percent of the variance. Independent groups  $t$  tests were also calculated for score changes in only the five-year-old children in the comparison and experimental groups (see Table 5). Differences between the groups remained statistically significant [ $t(94) = 5.61, p < .001$ ]. The effect size was larger ( $\eta^2 = .25$ ) when calculated for just the five-year-olds in the sample. This indicates that the child's age associated with the maturational process of young children did not have a statistically significant effect on the differences in improvement in peacemaking skills between the two groups.

Each of the peacemaking skills rated by teachers and the percentage of children who improved by at least one point on the 10-point scale are listed in Table 6. In each skill area, over 50 percent of the children showed some improvement. There may be some tendency for teachers to have observed less progress in skills taught toward the end of the program. For example, "uses words in a firm voice," the skill taught in the penultimate session, had the lowest percentage of change.

### Effects of Gender

There were gender differences in the scores of children who participated in the Peacemakers program. Independent samples  $t$  tests, as reported on Table 7, indicated that boys had statistically significantly lower pretest scores ( $M = 5.30, SD = 1.78$ ) than girls ( $M = 6.20, SD = 1.68$ ) [ $t(98) =$

$-2.66, p = .009$ ] but no significant differences in pretest to posttest score change. Though teachers scored boys as having less peacemaking skills before the program, their progress was about the same as that for girls. Boys' scores were higher in the posttests than they had been in the pretests ( $M = 6.80, SD = 1.89$ ) but were still significantly lower than those of the girls ( $M = 7.50, SD = 1.46$ ) [ $t(96) = -2.08, p = .04$ ].

### DISCUSSION

This study indicates, as in McMahon et al.'s (2000) research, that preschool children can benefit from a violence prevention program. Unlike in McMahon et al. (2000) however, children in this study demonstrated behavior changes per teacher report. In addition, as in the Aram and Shlak (2008) study with kindergarten children, this study used a comparison group and demonstrated that children in the experimental group showed behavior changes over the five-week period not observed in comparison group children.

The findings of this study support previous research (Flannery et al., 2003; McMahon et al., 2000) that teachers rate boys as higher in aggression and lower in prosocial behaviors than girls on the pretest but that both genders benefit equally from the violence prevention program. The finding that both genders benefit equally from the violence prevention program is in contrast to other studies (Farrell & Meyer, 1997; RCCP, 2006; Second Step Violence Prevention, 2006) that indicate boys may benefit more.

This study had a number of limitations. Although this program was implemented in an urban community, the sample was not ethnically and racially diverse, and all children attended private, pre-K programs. This is in contrast to

**Table 4: Analysis of Covariance of Age and Experimental versus Comparison Groups**

| Source of Variance | Adjusted SS | df  | MS    | F     | Partial $\eta^2$ |
|--------------------|-------------|-----|-------|-------|------------------|
| Corrected model    | 69.06       | 2   | 34.53 | 14.69 | .163             |
| Intercept          | 1.95        | 1   | 1.95  | 0.83  | .005             |
| Age                | 0.65        | 1   | 0.65  | 0.28  | .002             |
| Group condition    | 66.99       | 1   | 66.99 | 28.50 | .159             |
| Error              | 354.87      | 151 | 2.35  |       |                  |

**Table 5: Independent t-test Results for Five-Year-Old Children (N = 137)**

| Group        | n  | Pretest-Posttest Difference <sup>a</sup> |      |
|--------------|----|------------------------------------------|------|
|              |    | M                                        | SD   |
| Experimental | 97 | 1.4                                      | 1.66 |
| Comparison   | 40 | -0.03                                    | 1.28 |

<sup>a</sup>t-independent samples = 5.61, df = 94.01, p < .001,  $\eta^2$  = .25.

studies with samples with more risk factors for violence, such as higher percentages of African American and Latino children and those with poverty-level incomes (Aber et al., 2003; Botvin et al., 2006; de Anda, 1999). Other limitations were the relatively small sample size of the experimental and comparison groups, particularly given the possibility of self-selection in some classrooms. In addition, teachers completed a posttest on children's skills only once within one or two weeks after the program was completed. Therefore, this study measured only short-term gains in peacemaking skills and could not demonstrate whether children maintained behavior changes. Many studies of other programs have also used a pretest-posttest format and measured only short-term gains (for example, Aber et al., 2003; de Anda, 1999; Flannery et al., 2003; McMahon et al., 2000). This research relied on only one instrument, which was developed for the program and did not have established psychometric properties. This pretest-posttest measure relied on teacher observation, as the children were young for using a self-report measure. The reliance on teacher observations could have been a source of bias. Interrater reliability was not calculated, so it is not known whether there were significant differences in ratings among teachers. Most teachers of children in both the experimental and the comparison groups had experienced the curriculum previously. Therefore, it is possible that their support of the program could have biased their ratings.

#### IMPLICATIONS

This research provides preliminary support for the short-term effectiveness of a preschool curriculum to enhance children's ability to

demonstrate respect for others, avoid conflict, and resolve conflict when it cannot be avoided, as observed by their teachers. It indicates that a broad curriculum, such as Peacemakers, may be effective in enhancing skills for girls and boys. However, further research is needed to better establish the effectiveness of this program by strengthening the research design. This would include improvement in participation rates for classes in which teachers are receiving the Peacemakers program for the first time and for the comparison group and inclusion of public school classrooms to achieve a more diverse sample. Schools and classrooms could be assessed for levels of conflict before receiving the curriculum, to evaluate the school context and system impact of the program. Future research should use previously validated measures of children's conflict-resolution skills and child self-report measures as well as teacher observation; skill retention should be examined with follow-up posttests.

School social workers can advocate in their communities for violence prevention programs that begin early in children's lives. School social workers are in a position to be especially aware of young children's exposure to family and community violence and of the long-term effects of this exposure. Social workers may work in schools that have pre-K or preschool programs and can be instrumental in implementing violence prevention in these classrooms. Often functioning as the primary link between school and the child's home, school social workers can facilitate the coordination of school and home

**Table 6: Percentage of Peacemaker Children Showing Improvement in Each Skill (N = 99)**

| Peacemaking Skill                                                       | %    |
|-------------------------------------------------------------------------|------|
| Listens and talks out problem, uses courtesy words, expresses feelings. | 67.7 |
| Walks away from the problem, stays calm....                             | 66.7 |
| Calms self down ... , that is, takes deep breaths, counts to 10.        | 72.4 |
| Uses words in a firm voice ... that is, telling others to "STOP."       | 56.6 |
| Shares with others, takes turns.                                        | 63.3 |

**Table 7: Independent *t*-Test Results for Gender—Peacemakers Group (*N* = 101)**

| Group | <i>n</i>        | Pretest Scores <sup>a</sup> |           | Posttest Scores <sup>b</sup> |           | Pretest–Posttest Change <sup>c</sup> |           |
|-------|-----------------|-----------------------------|-----------|------------------------------|-----------|--------------------------------------|-----------|
|       |                 | <i>M</i>                    | <i>SD</i> | <i>M</i>                     | <i>SD</i> | <i>M</i>                             | <i>SD</i> |
| Boys  | 52              | 5.3                         | 1.78      | 6.8                          | 1.89      | 1.5                                  | 1.5       |
| Girls | 48 <sup>d</sup> | 6.2                         | 1.68      | 7.5                          | 1.46      | 1.4                                  | 1.8       |

<sup>a</sup>*t* = 2.66, *df* = 98, *p* = .01,  $\eta^2$  = .07.

<sup>b</sup>*t* = 2.08, *df* = 96, *p* = .04,  $\eta^2$  = .04.

<sup>c</sup>*t* = .33, *df* = 85.9, *p* = .74,  $\eta^2$  = .001.

<sup>d</sup>Two missing scores for females for posttest and pretest–posttest change, *n* = 46.

efforts to promote peacekeeping skills with young children during and after their exposure to prevention programs. Programs such as Peacemakers do not wait until serious behavior problems develop, but target preschool-age children in an attempt to help them deal with community, school, and family violence at early ages. Prevention programs such as Peacemakers may help prevent the negative outcomes associated with aggression in later childhood and adolescence. **CS**

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