

# Evaluation of a Theater-Based Youth Violence Prevention Program for Elementary School Children

Cassandra Kisiel  
Margaret Blaustein  
Joseph Spinazzola  
Caren Swift Schmidt  
Marla Zucker  
Bessel van der Kolk

**ABSTRACT.** The present study evaluated the impact of Urban Improv (UI), a theater-based youth violence prevention (YVP) program developed for inner-city youth, on three behavioral and psychological outcome domains: aggressive behaviors, prosocial behaviors, and scholastic

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Cassandra Kisiel is affiliated with the University of California, Los Angeles, National Center for Child Traumatic Stress, National Child Traumatic Stress Network, and the Hamilton Fish Youth Violence Prevention Consortium.

Margaret Blaustein and Joseph Spinazzola are affiliated with The Trauma Center at Justice Resource Institute, National Child Traumatic Stress Network, Hamilton Fish Youth Violence Prevention Consortium, and the Division of Psychiatry, Boston University School of Medicine.

Caren Swift Schmidt is affiliated with Behavioral Neurogenetics Research Center, Division of Child and Adolescent Psychiatry and Child Development, Stanford University School of Medicine and the Hamilton Fish Youth Violence Prevention Consortium.

Marla Zucker is affiliated with the Trauma Center at Justice Resource Institute and the Hamilton Fish Youth Violence Prevention Consortium.

Bessel van der Kolk is affiliated with the Trauma Center at Justice Resource Institute, National Child Traumatic Stress Network, Hamilton Fish Youth Violence Prevention Consortium, Division of Psychiatry, Boston University School of Medicine.

Address correspondence to: Cassandra Kisiel, The National Center for Child Traumatic Stress, NCCTS-University of California, Los Angeles, 11150 West Olympic Blvd., Suite 650 Los Angeles, CA 90064 (E-mail: ckisiel@mednet.ucla.edu).

attention and engagement. This study compared outcomes for 77 elementary school students in classrooms designated to receive UI with those of 63 students from matched control classrooms. Findings revealed that students who received UI were superior to matched controls on all outcome domains. Findings support UI as a promising practice for YVP with urban elementary school students and suggest that greater attention should be focused on application of theater-based programs in YVP. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2006 by The Haworth Press, Inc. All rights reserved.]

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Youth violence is a widespread problem and significant public health issue in the United States (Dahlberg, 1998; Prevention, 2004). Children exposed to violence often experience a range of emotional and behavioral problems and obstacles to normal development, including aggressiveness, depression, and failure to develop appropriate social skills (DuRant, Cadenhead, Pendergast, Slavens, & Linder, 1994; DuRant et al., 2000; O'Keefe, 1997). Numerous youth violence prevention (YVP) programs have been developed to address this problem in a variety of settings. However, relatively few violence prevention programs have been systematically evaluated (Embry, Flannery, Vazsonyi, Powell, & Atha, 1996; Farrell & Meyer, 1997; Tolan & Guerra, 1994; Twemlow, Fonagy, & Sacco, 2001; Zigler et al., 1992).

A growing research base points to school as an important setting for YVP programs (e.g., Greenberg et al., 2003; Twemlow et al., 2001). This research has demonstrated the efficacy of a number of school-based programs in attaining two primary outcomes of YVP: increased prosocial behaviors and decreased aggressive and disruptive behaviors (DuRant et al., 1994; Grossman et al., 1997; Twemlow et al., 2001). Moreover, incorporation of violence prevention programming into existing school structures allows for more integrated and ongoing learning within a safe and structured environment (Twemlow et al., 2001). The majority of these programs, however, have focused on violence prevention with middle- and high-school students.

To date, few YVP programs have been designed and tested with elementary school children (Flannery et al., 2003; Johnson, Johnson, &

Dudley, 1992; McArthur & Law, 1996; Tolan, Gorman-Smith, & Henry, 2004; Twemlow et al., 2001). Evidence suggests the importance of incorporating a developmental perspective into YVP programs. Studies have indicated that violent behaviors tend to manifest differently by age and may occur along a developmental trajectory associated with severity (e.g., Flannery et al., 2003; Tolan, Guerra, & Kendall, 1995). The competencies that are emphasized in prevention programs need to consider these developmental differences (Durlak, Weissberg, Quintana, & Perez, 2004). Therefore, the focus of YVP programs will likely differ for school-aged children compared to adolescents, given both the different peer-related issues and triggers that youth may face (Lochman & Dodge, 1994; Tremblay, Masse, & Perron, 1992) and competencies that should be emphasized (Durlak et al., 2004) at these different developmental periods.

Both the Center for Disease Control (CDC) and the *American Psychologist* (AP) recently published reports on “best practices” for YVP programs (Greenberg et al., 2003; Thornton, Craft, Dahlberg, Lynch, & Baer, 2002). These reports identified several crucial components of school-based YVP programs: interactive participation to teach students the application of skills and values in daily life situations; fostering of relationships between students, staff, and families; reward for positive behaviors; and total school involvement. Additional developmentally tailored components recommended for prevention programs designed for elementary school children included: use of a group program structure; active participation in story-based or narrative learning; opportunity to practice negotiation skills with peers and authority figures; and a permissive attitude toward humor and playfulness.

The CDC and AP best practice recommendations are consistent with a social-cognitive theoretical approach to YVP (DuRant, Treiber, & Getts, 1996; Twemlow et al., 2001). This approach contends that interventions geared toward the reduction of youth violence should focus on four components: (1) increase in knowledge and awareness; (2) development of self-regulation skills; (3) opportunities for practice, application, and feedback; and (4) ongoing social support for desired changes in behavior (DuRant & Hergenroeder, 1994). A social-cognitive framework for YVP lends itself to application of strategies and techniques that tap into multiple domains of learning (e.g., cognitive, affective, interpersonal, action-oriented).

Certain YVP programs, including theater- or arts-based programs, closely adhere to a social-cognitive framework and incorporate many of these best practice recommendations. Arts-based programs have been

associated with several prosocial outcomes, including increased social well-being, improved motivation and learning, and enhanced individual and community development, as well as reduction in aggression, violence, and crime (McArthur & Law, 1996). Studies of the impact of arts-based programs on reduction of social problems including violence suggest that flexibility in program structure, mentorship, opportunities for ongoing program involvement, and links to other community organizations are keys to program success (Stone, Bikson, Moini, & McArthur, 1998; Stone, McArthur, Law, & Moini, 1997). Similarly, research on experiential education suggests that theater-based techniques represent an alternative learning approach that integrates multiple modalities for learning, allowing for acquisition of knowledge and skills as well as opportunities to practice, apply, and enhance learned information (Helmeke & Prouty, 2001; Kevelighan, Duffy, & Walker, 1998).

Leaders in the field have acknowledged the promising future of theater-based strategies for youth violence prevention (OJJDP, 1995). One notable advantage of theater-based approaches to YVP is their provision of engaging forums (e.g., skits, improvisational scenes) and mechanisms (e.g., role play, perspective taking) for students to act out, break down, and analyze the stages of a violent event in an experientially vivid manner within a safe and contained setting. Such approaches provide unique opportunities to help students illuminate, examine, and address important aspects of youth violence, including cognitive attributions, peer pressures, sociocultural assumptions, and emotional sequelae (Elliott, Williams, & Hamburg, 1998).

Theater-based strategies for YVP may be particularly effective for engagement and learning among urban youth who are often regularly faced with violent scenarios. For instance, performance-based and collaborative experiences with peers and adults have been associated with enhanced learning among urban youth (Mikalsen, Vincent, & Harris, 2002). Significant reductions in disciplinary problems and improved academic functioning were associated with a program that emphasized cognitive skills, awareness of social roles, self-regulation skills, and mentoring relationships in inner-city elementary schools (Twemlow et al., 2001). In addition, a number of benefits have been associated with experiential learning across diverse populations, including increased confidence in skills (Helmeke & Prouty, 2001; Kevelighan et al., 1998), opportunity to address ethical dilemmas in a safe environment (Rabinowitz, 1997; Twemlow et al., 2001), and improved clinical outcomes (Gask & Goldberg, 1993).

Although several arts-based YVP programs have been developed, few programs have been systematically evaluated (McArthur & Law, 1996; O'Donnell, Hawkins, Catalano, Abbott, & Day, 1995). Existing research on arts-based programs has been primarily qualitative in nature (Costello, 1995; Long & Soble, 1999; Stone et al., 1998). Given the increased interest in arts-based programs, the efficacy and effectiveness of theater-based programs for YVP need to be evaluated through methodologically rigorous empirical research (Stone et al., 1997).

Notably, research on YVP to date has focused almost exclusively on aggressive and prosocial behavioral outcomes, with little attention to evaluation of other youth outcome domains likely to be associated with risk of violence exposure, perpetration, or impact. Potentially relevant domains to be targeted in future research include attentional processes, scholastic engagement, hyperactivity and impulsivity (Twemlow et al., 2001).

The present study consisted of an independent evaluation of Urban Improv (UI), a school-based YVP program that has been in operation in the Boston Public Schools for the past 14 years, and that utilizes structured theater improvisation to address youth decision-making, impulse control, and conflict resolution skills. This evaluation examined the impact of UI on three outcome domains: aggressive and externalizing behaviors; prosocial behaviors, including cooperation, assertiveness, and self-control; and scholastic attention and engagement. It was hypothesized that participation in UI would be associated with: (1) prevention of new-onset or increased aggressive behaviors; (2) increased prosocial behaviors; and (3) decreased hyperactivity and withdrawal, processes which interfere with attention and engagement.

## ***METHOD***

### ***Procedure***

The evaluation of UI consisted of a quasi-experimental, matched control, multi-outcome evaluation with elementary school students in the fourth grade. Classrooms identified a priori by the school district to receive UI were matched for school setting, grade, gender, race, learning level, first language and socioeconomic characteristics with comparison classrooms. All study classrooms were fourth grade, mainstreamed, with English as first language. The protocol consisted of classroom-based observation and student- and teacher-report questionnaires. Assessment domains and measure selection were informed by pilot evaluation con-

ducted with same-aged cohorts during the prior two years. Evaluation measures were administered at baseline and immediately following program completion.

### ***Participants***

Participants were fourth-grade students drawn from five inner-city schools within one school district. Intervention schools were chosen by the school district based on prior collaborations and at-risk demographic factors primarily related to school location (e.g., urban, high-crime location of school system). Control classrooms were drawn from the same schools as intervention classrooms when available; additional control classrooms were selected from nearby schools to reflect the demographics of intervention classes.

Inclusion criteria for the study included: (1) enrollment in the fourth grade at a Boston Public School, within a single district; (2) enrollment in an UI class or a selected control classroom; (3) consent from legal guardian; (4) agreement to participate and ability to provide assent; and (5) English language proficiency. Recruitment was sought from all students in a given class unless a teacher indicated a compelling reason not to involve a particular student in the evaluation (e.g., significant learning disability).

Participants were 140 students from eight fourth-grade classrooms; four classes (n=77) received the intervention, and four classes (n=63) acted as controls. Participants ranged in age from 8 to 11 years (M=9.83, SD=.67). Gender was evenly distributed (47.9% female, 52.1% male). Ethnic/racial distribution was predominantly ethnic minority: African-American (44.5%), Hispanic (27.7%), Bi-racial (13.1%), Asian (5.8%), Other (5.8%), Caucasian (2.2%), and Native American (0.7%). Demographic variables by intervention group are reported in Table 1. Baseline analyses revealed that groups did not differ significantly on any demographic variable.

### ***Prevention Program: Urban Improv***

Urban Improv (UI) is an interactive theater and educational program designed to serve racially and ethnically diverse inner-city youth in the Boston Public Schools, including elementary, middle, and high school settings, and throughout New England (Freelance Players, 2004; Magis, 2004). UI has been run in the Boston Public School system for the past 14 years. UI is an action-oriented, violence prevention program that ad-

TABLE 1. Descriptive Variables by Intervention Group

Demographic Variable	Urban Improv	Control
Total n	77	63
Mean Age ( <i>SD</i> )	9.89 (0.70)	9.77 (0.62)
Gender		
%Male	58.7	46.8
%Female	41.3	53.2
Ethnicity		
African-American	44.7	44.3
Caucasian	2.6	1.6
Hispanic/Latino	19.7	37.7
Asian	7.9	3.3
Native American	1.3	0.0
Biracial	17.1	8.2
Other	6.6	4.9

Note: Groups did not differ significantly on any reported variable.

dresses a variety of themes related to violence and conflict resolution. UI conforms to a social-cognitive framework of YVP. Its premise is that providing children with interactive opportunities to rehearse youth conflict scenarios will enhance their real-life ability to solve problems in a non-violent manner. A particular strength of this program is its emphasis on many of the components of best practices for YVP, including group format, behavioral rehearsal, adult involvement, mentoring and feedback, use of humor, cultivation of self-regulation skills, and reliance upon strategies and techniques tapping multiple domains of learning. UI is intended to provide a safe forum to critically examine and experience the consequences of personal actions and choices in youth conflict situations, and to develop and practice new and more effective ways of responding. This program utilizes structured theater improvisation to improve decision making, problem solving, leadership, cooperation, assertiveness, and impulse control and values clarification. Its interactive program design enables children to practice in a proactive manner options to a variety of complex social situations that often are the precursors of violence.

The UI curriculum is organized into three distinct nine-week units, tailored to provide developmentally appropriate content for three distinct



age/grade cohorts: elementary, middle, and high school. The fourth-grade curriculum addresses the following themes: friendship, self-esteem, imagination, peer pressure, fairness, violence/conflict resolution, sharing, and family.

Program structure consists of nine weekly sessions that are 75 minutes in length, taking place during the school day in a local theater space (to which students are bussed and accompanied by their teacher). Each session begins with an original song on the topic of the week and is followed by a prepared scene that relates to the particular theme. At a critical point in the initial scene, the director freezes the action and invites a student to replace one of the actors. This process allows students to make the pivotal decisions affecting the outcome of the scene, take control of the drama, and imagine different alternatives to social or violent scenarios. Subsequently, students are divided into groups, each creating and performing their own scene on the same topic. Sessions end with group discussion of the choices made and the consequences that followed, which provides a forum for both values clarification and processing of personal experiences and reactions. The UI intervention staff includes a director and four actors, all of who have extensive training in improvisational theater, expressive arts, and youth education.

### *Measures*

*Social Skills Rating System—Elementary Level (SSRS) (Gresham & Elliot, 1990).* The SSRS was used to measure participants' social skills, problem behaviors, and academic competence. Both the student-(SSRS-S) and teacher-(SSRS-T) report versions were used. The SSRS-S is a 34-item, self-report measure scored on a 3-point Likert scale. Items load onto four subscales: Cooperation, Assertion, Empathy, and Self-control. The SSRS-T consists of 57 questions on 3 content scales: Social Skills (3 subscales: Cooperation, Assertion, Self-Control), Problem Behaviors (3 subscales: Internalizing, Externalizing, Hyperactivity), and Academic Competence. The SSRS-T Externalizing Scale consists of teacher report of student aggressive and disruptive behaviors and was used as an index of teacher report of student aggression in the present study. The SSRS-T has demonstrated good internal consistency, with coefficient alphas of .93 (females) and .94 (males) for the Social Skills scale, .87 (females) and .88 (males) for the Problem Behaviors scale, and .96 (females) and .95 (males) for the Academic Competence scale (Gresham & Elliot, 1990). The internal consistency of the SSRS-S Social Skills scale was also adequate (alpha = .80 and .84 for females and



males, respectively). Test-retest reliability was good for the SSRS-T ( $r = .84$  to  $.93$ ), but lower for the SSRS-S ( $r = .68$ ). Studies have also supported the criterion and construct validity of both SSRS forms (Gresham & Elliot, 1990).

*Youth Coping Inventory (YCI)* (McCubbin, Thompson, & Elver, 1996). The YCI is a self-report measure of coping style. Youth are asked to rate the frequency of their use of various strategies on 31 items, scored on a 5-point Likert scale. Responses are categorized into three broad coping strategies. For purposes of this study, the subscale targeting coping strategies suggestive of aggression was utilized. Overall internal consistency for the YCI is high (Cronbach's  $\alpha = .86$ ) (McCubbin et al., 1996). Short-term test-retest reliabilities for the YCI are not available, and long-term (6-15-months) test-retest reliability is low ( $r = .43$ ). The predictive validity of the YCI has been established (McCubbin et al., 1996).

*Normative Beliefs About Aggression (NBA)* (Huesmann, Guerra, Zelli, & Miller, 1992). The NBA is a 20-item, self-report measure designed to measure youth attitudes and beliefs toward violence and aggression in various scenarios. Responses load onto two subscales: General Approval of Aggression and Approval of Retaliation Aggression scale. Internal consistency of the two scales ranges from  $.65$  to  $.85$  and test-retest values from  $.06$  to  $.44$  (Violence Institute of New Jersey at UMDNJ). No other psychometric data are available.

### **STATISTICAL DESIGN**

The study was designed to assess the effectiveness of UI as a violence prevention initiative for at-risk youth. Specifically, youth exposed to UI were compared to controls on aggressive and prosocial behaviors, as well as on scholastic attention and engagement.

The study utilized a quasi-experimental design. Youth participating in the UI program were drawn from pre-existing, intact classrooms previously selected to participate in the program. Control classrooms were selected from within the same schools when possible, or from different schools with similar demographic profiles to intervention schools.

Multilevel modeling (HLM) was used to account for the clustering of students in classrooms. Baseline group differences on outcome domains were assessed using multivariate analysis of variance (MANOVA), followed by univariate analysis of variance (ANOVA). To control for any baseline differences in study variables, study outcomes were evaluated

using either multilevel analysis of covariance (ANCOVA) or, as appropriate (i.e., more than one outcome measure available for a given domain being assessed), multilevel multivariate analysis of covariance (MANCOVA), with baseline score serving as covariate for all outcome measures. Significant multivariate results were followed by multilevel univariate analysis.

Data collection occurred in intact classroom settings during scheduled school times. Although efforts were made to administer study measures to students absent on the date(s) of data collection, a number of participants had missing data, ranging from single, unanswered items within a measure to missing several full measures due to school absence on the date of measure administration. The total number of participants was 140. Missing data was accounted for as follows. Within a discrete measure, missing data was accounted for using the rules established for that measure. To maximize power, participants with excessive incomplete data on any given measure were dropped from analyses requiring that measure, but were included in all analyses for which they had complete data available. As a result, students who were excluded from multivariate analyses due to missing listwise data may have been included in a follow-up univariate analysis when data for that measure was available.

## **RESULTS**

### ***Preliminary Analyses***

*School differences.* In order to account for the potential impact of school-specific effects, baseline comparisons of key study variables by school were conducted using multivariate analysis of variance (MANOVA) with school as the grouping variable. Where significant differences were revealed, these were followed by univariate analysis of variance (ANOVA) to identify specific measures that differed, followed by the Tukey HSD test to evaluate specific school differences.

Results indicated significant differences by school on teacher ratings of key study variables; post-hoc analyses indicated that ratings of both aggression and prosocial behaviors were significantly different, with three of the five analyses indicative of group difference due to higher scores for one control classroom at baseline. In order to account for potential bias, participants from this classroom were removed from pri-

mary study analyses and all multivariate analyses were re-run. Results for all analyses remained at previous levels of significance; therefore, data from these participants was retained.

*Baseline group comparison.* Descriptive statistics are reported in Tables 2 and 3. At baseline, multivariate analyses indicated that treatment groups did not differ on teacher- or student-reported aggression or student-reported prosocial behavior. Groups were found to differ on teacher-reported prosocial behaviors ( $F(3,129)=4.179, p<.01$ ); follow-up univariate analyses indicated that control students were rated as having higher levels of assertion at baseline.

TABLE 2. Descriptive Information for Teacher-Report Measures

Cluster	Measure	Urban Improv			Control		
		<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Aggression	Reactive Aggression						
	Pretreatment	53	2.57	1.39	61	2.62	1.51
	Posttreatment	55	2.67	1.32	63	2.71	1.44
	Proactive Aggression						
	Pretreatment	54	1.58	0.88	61	1.67	1.16
	Posttreatment	55	1.76	1.03	63	1.82	1.03
Prosocial	Externalizing Behaviors						
	Pretreatment	72	3.94	3.87	62	3.33	3.77
	Posttreatment	75	3.88	3.92	53	4.43	4.38
	Cooperation						
	Pretreatment	72	13.18	4.62	61	13.18	5.26
	Posttreatment	75	14.44	4.42	51	11.76	6.17
Attention/ Engagement	Assertion						
	Pretreatment	72	10.82	3.88	61	13.03	4.84
	Posttreatment	75	12.81	4.38	51	11.53	5.00
	Self-Control						
	Pretreatment	72	12.11	5.32	61	13.02	5.84
	Posttreatment	75	13.08	5.18	51	11.39	6.36
Hyperactivity/ Internalizing	Hyperactivity						
	Pretreatment	72	4.86	3.77	62	4.06	4.09
	Posttreatment	75	4.33	3.88	53	4.79	4.3
	Internalizing						
	Pretreatment	72	4.92	2.99	62	3.69	3.03
	Posttreatment	75	4.05	3.02	53	4.96	3.23

TABLE 3. Descriptive Information for Student-Report Measures

Cluster	Measure	Urban Improv			Control		
		<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Aggression	General Approval						
	Pretreatment	70	1.49	0.56	58	1.74	0.74
	Posttreatment	64	1.63	0.72	52	1.45	0.53
	Retaliation						
	Aggression						
	Pretreatment	68	2.04	0.66	55	2.08	0.81
	Posttreatment	66	2.17	0.64	52	1.99	0.75
	Aggressive Coping						
	Pretreatment	65	18.21	4.41	57	19.07	4.72
	Posttreatment	57	18.76	3.74	49	19.14	4.79
Conduct Problems							
	Pretreatment	70	0.24	0.22	56	0.25	0.28
	Posttreatment	62	0.22	0.25	54	0.23	0.24
Prosocial	Cooperation						
	Pretreatment	71	14.55	3.00	57	13.23	3.50
	Posttreatment	67	14.42	2.98	50	14.88	3.65
	Assertion						
	Pretreatment	70	13.93	2.85	57	13.23	3.5
	Posttreatment	67	13.72	2.53	50	13.52	3.45
	Self-Control						
	Pretreatment	70	11.69	3.91	58	11.22	4.48
	Posttreatment	67	11.21	3.66	50	12.2	4.64
	Empathy						
Pretreatment	71	15.75	3.32	58	15.31	3.93	
Posttreatment	67	14.76	3.49	50	15.98	3.50	

### Primary Analyses

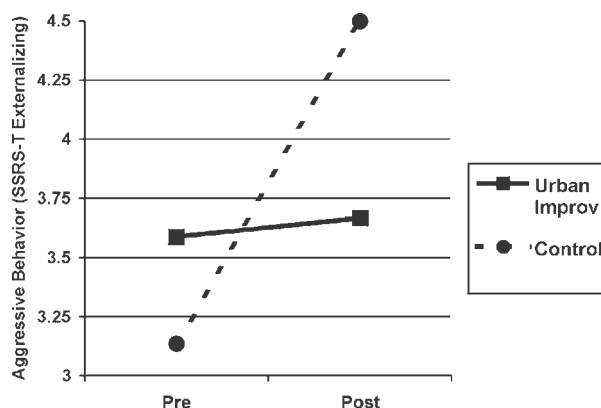
*Aggressive/disruptive behaviors.* Primary study hypotheses focused on the impact of the UI program on youth violence and prosocial behaviors. To test the first study hypothesis that participation in the UI program would act as a preventative measure for the development of aggressive or violent behaviors, one multilevel univariate analysis and one multilevel MANCOVA was conducted examining teacher- and student-report of aggression, respectively. Analyses indicated significant effects for teacher-, but not student-reported youth aggressive and

disruptive behaviors ( $F(1,114)=5.41$ ,  $p=.022$ ). Direction of findings revealed that at post-assessment, participants in the UI program maintained baseline levels of externalizing behaviors; in contrast, controls were found to increase levels of externalizing behaviors over time (see Figure 1).

*Prosocial behaviors.* The second study hypothesis postulated that participation in the UI program would lead to an increase in prosocial behaviors. Analyses indicated a significant multilevel multivariate effect for teacher-report, but not youth-report, of prosocial behaviors ( $F(1,351)=5.23$ ,  $p=.023$ ). Follow-up multilevel univariate analyses indicated significant effects for teacher report of youth cooperative behaviors ( $F(1,111)=5.06$ ,  $p=.026$ ) and self-control ( $F(1,111)=4.55$ ,  $p=.035$ ). In addition, a nonsignificant trend was observed for teacher report of youth assertive behaviors ( $F(1,111)=3.59$ ,  $p=.061$ ). Examination of group means revealed that, during the study time period, youth participating in the UI program demonstrated an increase in levels of all prosocial behaviors across domains. In contrast, during the same period, comparison youth demonstrated a decrease in level of prosocial behaviors.

Standardized scores and overall percentile rankings for total social skills were also examined, using analysis of covariance, and were consistent with multivariate findings. UI was found to have a positive impact on overall Social Skills, according to both standard score

FIGURE 1. Change in teacher-reported aggressive behavior for children exposed to Urban Improv versus controls.



( $F(1,111)=5.46$ ,  $p=.021$ ) and percentile rank ( $F(1,111)=3.82$ ,  $p=.053$ ). Youth receiving the prevention program, as a group, moved from the 36th to the 48th percentile for elementary school students; in contrast, comparison student demonstrated a decline in overall rating of social skills, dropping from the 48th percentile to the 37th percentile for children their age.

*Scholastic attention and engagement.* A significant multilevel multivariate effect was found for teacher report of attention/engagement ( $F(1,237)=6.67$ ,  $p=.010$ ). Multilevel univariate analyses revealed significant effects for both internalizing symptoms ( $F(1,114)=6.95$ ,  $p=.010$ ) and hyperactivity ( $F(1,114)=4.69$ ,  $p=.033$ ) on the SSRS. Youth receiving UI demonstrated a decrease in level of these behaviors over time whereas comparison youth demonstrated an increase in symptoms.

## DISCUSSION

Results of this study support UI as a promising practice for YVP with inner-city elementary school children, lending support to the application of arts-based programs in YVP initiatives. Findings from this study indicated increased prosocial behaviors, prevention of new-onset aggression, and decreased hyperactivity and internalizing symptoms among students participating in UI. In contrast, youth in the comparison group exhibited an increase in aggression, hyperactivity, and internalizing symptoms, and a decrease in levels of prosocial behaviors during the same time period. Results indicate that for youth partaking in UI, the program not only halts the progression of aggressive behaviors, but supports the development of prosocial behaviors such as cooperation, assertion, and self-control. It is likely that these positive behaviors act as one mechanism through which aggressive behaviors are reduced, as youth are offered alternative strategies for coping in the face of conflict. These findings are consistent with the existing literature on the impact of school-based YVP programs.

These findings provide a unique perspective on the use of YVP programs with elementary school aged children. Evidence from this study indicates that the elementary school years may be an important time to intervene, as there is the potential for building new problem-solving skills among youth before aggressive behaviors and attitudes become entrenched. This may be particularly relevant given the developmental shift that occurs during middle school, around which time peers assume an increasingly influential role in youth decision-making.

Interestingly, significant findings in this study were based on teacher, but not student, report. There are several possible reasons for this discrepancy. Inconsistencies in adult- and child-report data are not uncommon in child research (e.g., Achenbach, McConaughy, & Howell, 1987; Kisiel & Lyons, 2001). It is also possible that children at this age may either be less aware of changes in their behavior or less able to accurately report these changes compared to adults who may be better observers of children's behaviors. Notably, the latter interpretation is consistent with the typically lower reliability of student- versus teacher- report measures.

This program evaluation represents an initial step in the establishment of UI as an evidence-based practice for YVP. Initiatives are currently underway to design and evaluate a teacher-led supplemental curriculum to UI to incorporate components of this program into naturalistic classroom environments on an ongoing basis. This supplement will enable better integration of the program across settings, as well as allow students more opportunities for assimilation of learning and practice of skills introduced in UI. Promising work has already been done in this regard with high school students (i.e., Stevahn, Johnson, & Johnson, 1996, 1997).

Future research should examine the efficacy of UI with middle school and high school cohorts to assess whether this violence prevention program works for older children who are more likely to have more extensive prior exposure to violence. Additionally, future research should assess the replicability of findings when implemented in other inner-city school systems by non-program originators, as well as the adaptability of this program to suburban and rural school systems. Finally, it will be important to consider the impact of UI on other YVP outcome indices, including objective indicators of behavioral changes (e.g., disciplinary actions, truancy).

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