

Running Head: BUILDING A FOUNDATION AGAINST VIOLENCE

Building a Foundation Against Violence:
Impact of a School-Based Prevention Program on Elementary Students

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Abstract

This study examined the effectiveness of the *Too Good for Violence Prevention Program* (TGFV), a multifaceted interactive intervention. Grounded in Bandura's Social Learning Theory, the *TGFV* curricula focus on developing personal and interpersonal skills to solve conflict non-violently and resist social influences that lead to violence. Participants were 999 third grade students and 46 teachers in ten elementary schools. The schools were matched on student characteristics and academic performance and assigned to treatment or control conditions. Teachers and students completed checklists assessing students' behaviors prior to, following, and 20 weeks after program delivery. Results show that treatment students, as compared to control students, were perceived by teachers as evidencing more frequent use of personal and social skills and of prosocial behaviors after program delivery. Student survey data show that treatment students, as compared to control students, evidenced more positive scores in the areas of emotional competency skills, social and resistance skills, and communication skills after program delivery. The benefits of the *TGFV* program continued to be observed at the 20-week follow-up.

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Introduction

Need for Early Intervention

Preadolescence is a time when children begin to occasionally engage in high-risk behavior (Stipek et al., 1999). According to Van Acker and Talbott (1999), children entering elementary school are confronted with myriad social demands for which they may not be prepared. In their efforts to solve these social problems, some children will begin to display aggressive behavior. For this reason, entrance into school has been associated with increased risk for the display of aggressive behavior (Van Acker & Talbott, 1999). As noted by Baker (1998, pp. 31-32):

By the time children get to the primary grades we assume they have acquired a key set of social competencies that foster adaptation to schooling. These include valuing social exchange, trusting the intent of adults, the ability to “read” complex patterns of social behavior, a willingness to take positive risks, age-appropriate self-regulatory skills, and a developing sense of worth, self-acceptance, and personal agency. These capacities are nurtured within children’s social relationships. However, children with tendencies toward violence have different developmental trajectories. They arrive at the schoolhouse door ill equipped to negotiate the complexities of school life and to engage in a meaningful way with the community of the school.

Childhood aggression has been found to be highly indicative of later antisocial behavior (Smith & Furlong, 1998). Violence is a learned behavior. Patterns of violence appear to develop at an early age (Kelam et al., 1994) and the values, attitudes and interpersonal skills acquired early in life play a key role in the development of violent behavior (Thornton, et al., 2000). Because a person’s violent or nonviolent tendencies may be set in early childhood, elementary age children are recognized as ideal participants in interventions that promote nonviolent values and behaviors (Thornton, et al., 2000). Because of this recognition, in recent years there has

been an increasing focus on developing early violence prevention programs in the elementary grades (Catalano et al., 2003). These programs rest on the premise that early interventions will reduce the likelihood of more chronic and difficult problem behaviors in later adolescence (Catalano, et al., 2003). In recognition of the criticality of early intervention for the diminution of violent behavior and promotion of prosocial behavior, the *Too Good for Violence Prevention Program* (TGFV) was implemented with third grade students in 10 Florida elementary schools.

Multifaceted Intervention Program

Most school-based interventions that have been implemented in recent years have targeted only one promising risk factor and often failed to address the larger social context within which the student interacts (Van Acker & Talbott, 1999; Dodge, 1993). Over time, the single focused approach targeting a narrow range of risk factors has come under increased criticism from both prevention activists and practitioners (Catalano, et al., 2000; Cummings & Haggerty, 1997). The most effective approaches include several types of complementary strategies and interventions (Thornton, et al., 2000), address multiple factors, and promote positive behavior as well as reduce antisocial behavior (Catalano, et al., 2003). According to Sprague, et al. (2001), effective interventions apply a multiple systems approach to disciplines aimed at all students in the school, support educators in classrooms and schools, and adopt and sustain effective and efficient practices. Evidence increasingly favors the efficacy of higher order social skills instruction and emotional skills training to reduce the prevalence of antisocial behavior when applied universally in a school (Grossman, et al., 1997; Hawkins, et al., 1999; Elias et al., 1991; Cummings & Haggerty, 1997). Youth violence has been linked to a lack of social problem-solving skills (Baranowski, et al., 1997; Pepler & Slaby, 1994). The contention is that when children face social situations for which they are unprepared emotionally and

cognitively, they may respond with aggression or violence. We can, therefore, improve children's ability to avoid violent situations and solve problems nonviolently by strengthening their social relations with peers, teaching them how to interpret behavioral cues, and improving their skills in conflict resolution (Nader et al., 1996; Thornton, et al., 2000).

The *TGFV* third grade curriculum (Mendez Inc., 2000) used in this study is a multifaceted interactive intervention that uses a universal education strategy. It included seven 45-minute lesson units delivered by trained program instructors to all third grade students in selected schools. Grounded in Bandura's (1977) Social Learning Theory and Hawkins and Weis's (1985) Social Development Theory, the *TGFV* curriculum is designed to develop: (a) conflict resolution skills, (b) anger management skills, (c) respect for self and others, and (d) effective communication skills. Instructional strategies emphasize cooperative learning activities, role-play situations, and skills building methods such as modeling, practicing, reinforcing, providing feedback, and promoting generalization of skills to other contexts. Students are provided many opportunities to be active participants and receive recognition for their contributions and involvement. Teaching methods model and encourage bonding with prosocial others.

Research Questions

The purpose of the study was to examine the effectiveness of the *Too Good for Violence - Elementary School* prevention program in impacting primary age children's behaviors and their development of protective skills associated with resistance to violence. The study examined the following questions:

- Do teachers' observations of students participating in the *TGFV* prevention program in comparison to observations of students in the control group indicate:

1) more frequent use of personal and social skills, 2) more frequent engagement in prosocial behaviors, and 3) less frequent engagement in inappropriate social behaviors?

- Do students participating in the *TGFV* prevention program in comparison to students in the control group indicate: 1) higher levels of emotional competency skills, 2) higher levels of social and resistance skills, 3) higher levels of communication skills, and 4) more positive perceptions of their interactions with other students?
- Are treatment effects for students participating in the *TGFV* prevention program observed regardless of their gender, socioeconomic status, or ethnic background?

METHOD

Participants

Nine hundred and ninety-nine (999) third grade students and 46 teachers in Florida participated in the study. The student sample was 48% female, approximately 44% White, 12.5% African American, 36% Hispanic, 5% Multiracial, 2% Asian, and 0.5% American Indian. Fifty-four percent of the students were categorized as economically challenged by receipt of reduced or free lunch services, 20% received exceptional education services, and 17% received limited English proficiency services.

Design

Elementary schools from one of the nation's largest school districts were stratified on school ratings based on the State of Florida's criteria of academic performance, learning environment and student characteristics. Consideration was also given to school location: urban, rural and suburban. Five levels of stratification were identified and two schools for each

matched level were randomly assigned to either the treatment or control condition. Students in five of the elementary schools participated in the prevention program during the first quarter of the school year, and students in the other five schools served as the control sample for the study

Procedures

Teachers in the treatment and control schools completed the *Teacher Checklist of Student Behaviors* for each of their students prior to delivery of the *TGFV* prevention program, following program delivery, and 20-weeks after program delivery. Teachers received detailed instructions for completing the checklist. The average time to complete a checklist per student ranged from 1.5 to 2.5 minutes. Students in the treatment and control schools completed the *Student Protective Factor Survey Questionnaire* prior to delivery of the *TGFV* prevention program, following program delivery, and 20-weeks later. Scripted directions for administering the questionnaire to students were provided to classroom teachers. School administrators and teachers located at control sites were requested to refrain from delivering any major prevention curricula or programs in the classroom until the fourth quarter of the year.

Instrumentation

The *Teacher Checklist of Student Behaviors* (TCSB) and the *Student Protective Factor Survey Questionnaire* (SPFSQ) were developed based on research findings and contributions from a variety of alcohol, tobacco and other drug (ATOD) prevention agencies and investigators (Brounstein, et al, 1998; Hawkins, Catalano, & Miller, 1992). Both instruments focus on key risk and protective factors associated with children's ability to resist pressures to engage in risk behaviors and make healthy lifestyle choices. Items on the teacher checklist were piloted in studies using the *Too Good for Violence--Elementary School* prevention program and the *Too Good for Drugs--Elementary School* prevention program (Bacon, 2003). Items on the student

survey were piloted in studies using the *Too Good for Violence-Middle School* and *Too Good for Drugs and Violence High School* prevention programs (Bacon, 2001; and Bacon, 2000). Teacher responses to checklist items as well as student responses to questionnaire items were examined using a series of item analysis techniques.

Teacher Checklist of Student Behaviors. Teachers responded to 21 behavioral items using a 5-point scale ranging from 1 (*Never*) to 5 (*Almost Always*). Teacher responses to items were grouped into three protective subscales associated with students' social adaptability. Items indicating less socially acceptable behaviors (e.g., yells at other students, pushes or shoves other students) were recoded such that higher scores (maximum score = 5) indicated positive levels of student behaviors. An overall estimate of reliability using Cronbach's alpha for the TCBS was $r_\alpha = .96$. Subscale estimates of reliability were: Personal and Social Skills ($r_\alpha = .91$), Positive Social Behaviors ($r_\alpha = .93$), and Inappropriate Social Behaviors ($r_\alpha = .94$).

Student Protective Factor Survey Questionnaire. Students responded to 32 Likert scale items ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Student responses were grouped into four protective subscales associated with impacting children's resiliency to social challenges. Item responses were recoded as needed such that higher scores indicate positive levels of attitudes, perceptions or skills. An overall estimate of reliability using Cronbach's alpha for the SPFSQ was $r_\alpha = .94$. Subscale estimates of reliability were: Emotional Competency Skills ($r_\alpha = .80$), Social and Resistance Skills ($r_\alpha = .83$), Communication Skills ($r_\alpha = .82$), and Perceptions of Interactions with Others ($r_\alpha = .79$).

Teacher Evaluation of Program Implementation Survey

Classroom teachers of students participating in the *TGFV* program were asked to complete the *Teacher Evaluation of Program Implementation Survey* questionnaire to gauge

treatment fidelity and quality of implementation. Teachers responded to questions about the number of *TGFV* lessons offered and the time committed to lesson delivery. Teachers were also asked to respond to 13 Likert items ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*) to rate the program instructors' preparation, presentation, and interaction with and among students during their delivery of the program treatment. To assess potentially confounding influences, teachers in both the treatment and control schools maintained *Prevention Lesson and Activities Logs* to record any events, lessons or activities their students participated in at the school and classroom level throughout the year.

RESULTS

The results are presented in the following order: First, an examination of the data related to fidelity of program implementation; second, an examination of the teacher checklist and student survey results using the school and classroom as the unit of analysis; third, teacher responses and outcomes based on the teacher checklist; fourth, student responses and outcomes based on the student survey; finally, prevention effects for students by gender, socioeconomic status, and ethnic background.

Program Implementation

Twenty-one school-based teachers rated the intensity and quality of program delivery by the *TGFV* instructors across the treatment schools. All of the teachers indicated that each of the seven lessons was delivered to students in their classrooms in forty to fifty minutes. The teachers' responses to the *Teacher Evaluation of Program Implementation Survey* suggest that *TGFV* instructors modeled desirable instructional behaviors such as being well prepared for lesson presentations; providing clear directions; defining complex terms and concepts; responding to students' questions; applying appropriate classroom management strategies;

modeling positive conflict resolution strategies and choices; providing students opportunities to participate and practice skills; and recognizing and reinforcing students' participation. On a 5-point Likert scale, item scores ranged from 4.86 to 5.00. Teacher responses suggest that *TGFV* instructors were successful in developing a bond or rapport with students (4.95) and treated students in a respectful and non-prejudicial manner (5.00), and that the *TGFV* program had a positive impact on their students' behaviors or choices (4.86). Teachers' written comments offered additional support for their positive responses to the items on the survey questionnaire.

Lesson logs completed by teachers in both the treatment and control groups suggest that there were two district-wide initiatives in place during the year. First, *Red Ribbon Week*, a school-wide drug awareness and prevention series of events and instruction occurred in the month of February. Second, State legislation requires that elementary schools provide Character Education instruction that emphasizes core ethical values such as citizenship, manners, responsibility, courage, fairness, and respect for self and others. Since *Red Ribbon Week* and Character Education were implemented at all sites, it is assumed that any influences from those initiatives were relatively equally distributed between the treatment and control schools. In addition, most of the study sites had guest speakers or counselors who provided brief presentations on topics such as personal safety, child abuse, sexual harassment, bullying, stealing, and discrimination.

Overall, the findings from the program implementation survey suggest that the *TGFV* program was delivered to students as designed, with positive adult-student and student-student interaction. Confounding influences of alternative programs across the treatment and control schools were not observed.

Treatment Impact Using School as Unit of Analysis

Since treatment and control conditions were assigned to sites, the school served as the statistical unit of analysis. A lenient alpha level of .10 was selected to improve statistical power due to the limited sample size of 5 subjects (schools) per condition (Stevens, 1996). Pretest score equivalence and the effects of posttest and 20-week follow-up scores for both instruments were examined by treatment condition.

No statistically significant differences were observed between the treatment and control conditions using mean school pretest scores on the *Teacher Checklist of Student Behaviors* ($F = 2.87, p = .13$) or the *Student Protective Factor Survey Questionnaire* ($F = 0.34, p = .57$). The findings suggest that behaviors, attitudes and perceptions were similar for both the treatment and control schools on both instruments prior to the delivery of the prevention program.

Teachers' total scores on the *TCSB* were examined for the posttest and for the 20-week follow-up. A statistically significant between groups effect was observed for checklist posttest scores ($F = 6.90, p = .03$) favoring the treatment schools. The mean posttest score was 4.18 ($SD = .15$) for the treatment schools and 3.87 ($SD = .21$) for the control schools ($d = 1.43$). A statistically significant between groups effect was also observed for the 20-week follow-up checklist scores ($F = 6.70, p = .03$), again favoring the treatment schools. The mean 20-week score was 4.17 ($SD = .05$), for the treatment schools and 3.86 ($SD = .26$) for the control schools ($d = 1.19$).

Students' total scores on the *SPFSQ* were examined for the posttest and for the 20-week follow-up. A statistically significant between groups effect was observed for survey posttest scores ($F = 3.40, p = .10$), favoring the treatment schools. The mean posttest score was 4.04 ($SD = .19$) for the treatment schools and 3.82 ($SD = .19$) for the control schools ($d = 1.16$). A

statistically significant between groups effect was also observed for the 20-week follow-up scores ($F = 4.77, p = .06$), again favoring the treatment schools. The mean follow-up score was 3.89 ($SD = .14$) for the treatment schools and 3.70 ($SD = .13$) for the control schools ($d = 1.46$).

Treatment Impact Using Class as Unit of Analysis

No statistically significant differences were observed between the treatment and control conditions using mean classroom pretest scores on the *TC SB* ($F = 2.93, p = .09$), or the *SPFSQ* ($F = 0.26, p = .61$). The findings suggest that behaviors, attitudes and perceptions were similar for both the treatment and control classrooms prior to the delivery of the prevention program.

Teachers' scores on the *TCSB* were examined using a one-way Multivariate Analysis of Variance (MANOVA) with the posttest and the 20-week follow-up as the dependent variables, and the treatment condition as the independent variable. A statistically significant multivariate main effect was observed for the treatment condition ($\lambda = .837, df = 2, 43, F = 4.20, p = .02, \eta^2 = .16$). Follow up Univariate Analysis of Variances (ANOVA) were computed for the mean classroom checklist scores by time. A statistically significant between groups effect was observed for checklist posttest scores ($F = 7.98, p = .007$) favoring the treatment classes. The mean posttest score for treatment classes was 4.19 ($SD = .34$) for the treatment classes and 3.89 ($SD = .36$) for the control classes ($d = .83$). A statistically significant between groups effect was also observed for the 20-week follow-up checklist scores ($F = 7.61, p = .008$), again favoring the treatment classes. The mean 20-week score was 4.19 ($SD = .39$) for the treatment classes and 3.88 ($SD = .36$) for the control classes ($d = .86$).

Students' scores on the *SPFSQ* were examined using a one-way MANOVA with the posttest and the 20-week follow-up as the dependent variables, and the treatment condition as the independent variable. A statistically significant multivariate main effect was observed for the

treatment condition ($A = .803$, $df = 2, 43$, $F = 5.29$, $p = .009$, $\eta^2 = .20$). Follow up ANOVAs were computed for the mean classroom survey scores by time. A significant between groups effect was observed for survey posttest scores ($F = 8.34$, $p = .006$) favoring the treatment classes. The mean posttest score was 4.07 ($SD = .28$) for treatment classes and 3.83 ($SD = .27$) for the control schools ($d = .89$). A significant between groups effect was also observed for the 20-week follow-up survey scores ($F = 10.18$, $p = .003$), again favoring the treatment classes. The mean 20-week score was 3.91 ($SD = .23$) for treatment classes and 3.71 ($SD = .19$) for the control classes ($d = 1.05$).

Comparisons between schools and classes prior to program delivery suggest similar levels of protective scores on the *TCSB* and the *SPFSQ* for both groups. Immediately following the delivery of the *TGFV* prevention program and 20-weeks later, the treatment group evidenced significantly higher scores on the teacher checklist and student survey in comparison to schools and classes in the control group.

Teacher Checklist of Student Behaviors

The findings for school-level and class-level data provide confidence in exploring the results at the student-level.

Impact of Attrition on Teacher Checklist Scores

Attrition rates are an ongoing challenge and concern for any study gathering information over time, and the potential bias of missing responses on experimental results can be a threat to the generalization of the findings (Mohai, 1991; Botvin et al., 1990). In this study, attrition rates for the *Teacher Checklist of Student Behaviors* did not vary substantially across the treatment or control condition, with a seven percent loss (29 out of 442) of responses for the treatment group, and a 10% loss (58 out of 499) of responses for the control group. Due to coding errors and

student reassignment to other teachers or schools, approximately 9% (87) of the study sample could not be matched to pretest (Time 1) and 20-week follow-up (Time 3) scores. When the characteristics of students under the treatment and control conditions were examined between the pretest and the 20-week follow-up, no substantial differences were discernible (see Table 1).

TABLE 1

Characteristics of Students for the Teacher Checklist Pretest and for Students Persisting through the 20-Week Follow-Up

Variable	Pretest n = 999		20-Weeks n = 912	
	Treatment	Control	Treatment	Control
Female	49%	48%	49%	50%
White	45%	43%	45%	43%
African American	15%	11%	14%	10%
Hispanic	32%	38%	33%	39%
Multiracial	6%	4%	6%	4%
Asian	1%	3%	1%	3%
American Indian	>1%	>1%	>1%	>1%
Free/Reduced	56%	53%	56%	54%

To examine whether the study results may have been biased relative to attrition--students with and without 20-week follow-up checklist scores--a two-way MANOVA was conducted using the three posttest behavior subscale scores (Time 2) as correlated dependent variables, and the treatment condition and attrition as independent variables. No statistically significant main effect for attrition ($\lambda = .995$, $df = 3, 993$, $F = 1.73$, $p < .1602$) or interaction effect for treatment x attrition ($\lambda = .994$, $df = 3, 993$, $F = 1.86$, $p < .1355$) was observed. The results suggest that no trend or bias was evident on teachers' checklist scores for students with or without 20-week

follow-up scores (attrition). In addition, no differential patterns or change in slopes (no interaction) between attrition and treatment condition were evident.

Impact of Treatment on Teacher Checklist Scores

The mean scores for three *TCSB* behavior subscales were examined using a Multivariate Analysis of Covariance (MANCOVA) repeated measures design. Posttest and the 20-week follow-up scores were adjusted using pretest scores as the covariate. Observed and adjusted behavior scores of each subscale by treatment condition and time of checklist administration are provided in Table 2.

TABLE 2

Observed and Adjusted Teacher Checklist Scores on Three Behavior Subscales by Treatment and Time

		Treatment				Control			
		<u>Observed</u>		<u>Adjusted</u>		<u>Observed</u>		<u>Adjusted</u>	
Behavior Scales	Time	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SE</i>
Personal & Social Skills	Posttest	4.05	.810	3.99	.029	3.67	.791	3.72	.026
	20-Weeks	4.07	.922	4.01	.033	3.65	.782	3.69	.030
Prosocial Behaviors	Posttest	4.10	.847	4.04	.031	3.70	.831	3.75	.028
	20-Weeks	4.11	.913	4.06	.033	3.66	.797	3.70	.030
Inappropriate Behaviors	Posttest	4.46	.796	4.39	.030	4.42	.786	4.46	.028
	20-Weeks	4.34	.835	4.29	.032	4.37	.789	4.42	.030

As shown in Table 3, a significant multivariate effect was observed for the treatment condition ($\Lambda = .829$, $df = 6, 904$, $F = 31.14$, $p < .0001$). Also shown in Table 3 are the results of

Univariate Analysis of Covariance (ANCOVA) conducted to identify which of the three behavior subscales were contributing to differences between the treatment and control group as well as differences between conditions over time (posttest and 20-week follow-up).

The results of the post hoc analyses suggest teachers' perceptions in the treatment group in comparison to teachers' perceptions in the control group were significantly higher in two of the three behavior scales. Students participating in the *TGFV* program were perceived to show (a) more frequent use of personal and social skills, and (b) more frequent engagement in prosocial behaviors. No statistically significant difference was observed between teachers' perceptions of students engaging in inappropriate social behaviors in the classroom. The benefits of the *TGFV* program for students continued to be evidenced at the 20-week follow-up for the first two behavior scales--Personal and Social Skills, and Prosocial Behaviors.

The average scores across teacher groups (treatment and control) associated with engagement in inappropriate social behaviors ranged from 4.35 to 4.50 on a 5.00-point scale, suggesting a ceiling on the potential effects of program treatment. Considering that students in this sample were served in general education settings, the vast majority of third graders are not likely to engage in frequent socially inappropriate behaviors such as name calling, yelling, and pushing other students.

TABLE 3

Multivariate Analysis of Covariance and Univariate Analysis of Covariance on the Teacher Checklist Behavior Scales by Treatment and Time

	<i>Wilks'</i>	<i>df</i>	<i>F</i>	<i>p</i>
Multivariate Between Effects				
Treatment Condition	.829	6, 904	31.14**	.0001
Univariate <i>F</i> tests Adjusted for Pretest Scores for Treatment by Time				
<u>Posttest (Time 2)</u>				
Personal & Social Skills		1, 911	47.70**	.0001
Prosocial Behaviors		1, 911	49.23**	.0001
Inappropriate Social Behaviors		1, 911	2.83 ^a	.0931
<u>20-Weeks (Time 3)</u>				
Personal & Social Skills		1, 911	52.41**	.0001
Prosocial Behaviors		1, 911	61.23**	.0001
Inappropriate Social Behaviors		1, 911	7.67 ^a	.0057

** $p < .01$. ^a = exceeds Bonferroni adjustment for Type I error.

Student Survey

Impact of Attrition on Student Survey Scores

The initial survey sample contained 935 students with both pretest and posttest scores. The student survey sample contained 64 (6%) fewer respondents than the teacher checklist sample. The difference in sample size for the student survey is attributed to absences on one or more of the three survey administration dates. Teachers on the other hand could complete checklists regardless of whether students were present in the classroom.

At the time of the 20-week follow-up, attrition rates did not vary between the treatment or control condition, with a 10% (39 out of 406) loss of respondents for the treatment group, and an

11% (57 out of 529) loss of respondents for the control group (see Table 4). To examine whether SPFSQ results may have been biased relative to attrition--students with and without 20-week follow-up survey scores--a two-way MANOVA was computed using the students' four posttest survey scores (Time 2) as correlated dependent variables, and the treatment condition and attributions as independent variables. No statistically significant main effect for attrition ($\Lambda = .999$, $df = 4, 928$, $F = 1.73$, $p < .1416$) or interaction effect for treatment x attrition ($\Lambda = .993$, $df = 4, 928$, $F = 1.67$, $p < .1545$) was observed. No differential patterns or change in slopes between the attrition and the treatment condition was evident. The loss of student respondents for the 20-week follow-up relative to the pretest may be attributed primarily to random miscoding errors, mobility across classrooms or schools, and absenteeism during the 20-weeks survey administration.

TABLE 4

Characteristics of Students for the Student Survey Pretest and 20-Week Follow-Up

Variable	Pretest		20-Weeks	
	<u>n = 935</u>		<u>n = 839</u>	
	Treatment	Control	Treatment	Control
Female	48%	49%	48%	50%
White	45%	43%	45%	45%
African American	17%	11%	16%	10%
Hispanic	31%	38%	32%	38%
Multiracial	6%	5%	6%	4%
Asian	1%	3%	1%	3%
American Indian	--	--	>1%	>1%
Free/Reduced	56%	53%	56%	54%

Impact of Treatment on Student Survey Scores

The mean scores for the four *SPFSQ* subscales were examined using a MANCOVA repeated measures design. Posttest and the 20-week follow-up scores were adjusted using pretest scores as the covariate. Observed and adjusted protective factor scores of each subscale by treatment condition and time of survey administration are provided in Table 5.

As shown in Table 6, a significant multivariate effect was observed for the treatment condition ($\Lambda = .924$, $df = 3, 829$, $F = 8.53$, $p < .0001$). Univariate ANCOVA's were conducted to identify which of the four protective subscales were contributing to differences between the treatment and control group. The results of the post hoc analyses suggest that students in the treatment group evidenced, in comparison to students in the control group, significantly higher scores in three of the four protective areas. Students participating in the *TGFV* program evidenced more positive scores in their perceptions of: (a) emotional competency skills; (b) social and resistance skills; and (c) communication skills. The benefits of the *TGFV* program continued to be observed for students in the treatment group at the 20-week follow-up in these same three skill areas.

No significant difference was observed between students in the treatment and control group for Interactions with Others. Third graders in both groups had very high scores (4.17-4.28) before and after program delivery regarding their perceptions of interactions with other students. This finding suggests a ceiling effect similar to that noted above for teachers' observations of students' infrequent engagement in Inappropriate Social Behaviors.

TABLE 5

Observed and Adjusted Student Protective Scores by Treatment and Time

Protective Scales	Time	Treatment				Control			
		<u>Observed</u>	<u>SD</u>	<u>Adjusted</u>	<u>SE</u>	<u>Observed</u>	<u>SD</u>	<u>Adjusted</u>	<u>SE</u>
Emotional Competency Skills	Posttest	4.03	.722	4.02	.032	3.78	.732	3.78	.028
	20-Weeks	3.85	.732	3.85	.034	3.62	.698	3.62	.030
Social and Resistance Skills	Posttest	3.93	.799	3.93	.034	3.70	.775	3.71	.030
	20-Weeks	3.78	.751	3.78	.034	3.56	.738	3.56	.030
Communication Skills	Posttest	3.99	.764	3.98	.034	3.70	.757	3.70	.030
	20-Weeks	3.74	.734	3.73	.034	3.50	.751	3.51	.031
Interactions with Others	Posttest	4.29	.769	4.29	.030	4.24	.702	4.24	.027
	20-Weeks	4.23	.610	4.23	.030	4.17	.699	4.17	.027

Treatment Effects by Student Characteristics

To examine whether the *TGFV* prevention program was effective across student characteristics, correlated *t*-tests were computed using students' pretest and posttest scores on the *SPFSQ*. The findings suggest that both girls and boys had significantly higher scores on the posttest in comparison to the pretest ($p \leq .0015$). Economically disadvantaged and non-economically disadvantaged students (based on free or reduced lunch) also showed significantly higher scores on the posttest ($p \leq .0043$), as did White, African American, and Hispanic students ($p \leq .0142$). Limited sample sizes for other ethnic backgrounds prohibited further comparisons. Overall, the *TGFV* prevention program appeared to have had a positive impact on students' skills and perceptions regardless of gender, socioeconomic status, or ethnic background.

TABLE 6

Multivariate Analysis of Covariance and Univariate Analysis of Covariance on the Student Survey Protective Scores by Treatment and Time

	<u>Wilks'</u>	<u>df</u>	<u>F</u>	<u>p</u>
Multivariate Between Effects				
Treatment	.924	9, 829	8.53**	.0001
Univariate F tests Adjusted for Pretest Scores for Treatment Effects by Time				
<u>Posttest (Time 2)</u>				
Emotional Competency		1, 838	31.88**	.0001
Social & Resistance		1, 838	24.04**	.0001
Communication Skills		1, 838	39.01**	.0001
Interactions with Others		1, 838	1.13	.2876
<u>20-Week Follow-Up (Time 3)</u>				
Emotional Competency		1, 838	26.39**	.0001
Social & Resistance		1, 838	21.76**	.0001
Communication Skills		1, 838	23.64**	.0001
Interactions with Others		1, 838	1.84	.1747

** $p < .01$.

DISCUSSION

The *Too Good for Violence Prevention Program* is a multifaceted, prevention program focused on promoting respect for self and others, and developing effective communication skills, social and conflict resolution skills, emotional competency skills and anger management strategies. Based on theoretical constructs of Social Learning Theory (Bandura, 1977) and Social Development Theory (Hawkins & Weis, 1985), the *TGFV* program is a long-term interaction. Its instructional strategies emphasize cooperative learning activities, role playing and various skill-building methods (e.g., modeling, practice, reinforcing, feedback,

generalization of skills to other constructs), all aimed at preventing antisocial, aggressive and violent behavior, and promoting healthy decision-making and child development. The program is designed to benefit all students in the school by reducing risk factors and building protective factors that impact most K-8 students. Given the above characteristics, the program appears to meet the guidelines for effective programs identified by such researchers as Catalano, et al., (2003), Hawkins, et al, (1992), Sprague et al., (2001), and Elias, et al. (1997). Also, examination of the program involved a rigorous application of evaluation principles promoted by numerous researchers (e.g., Thornton, et al., 2000; Farrell, et al., 2002; Tolan & Guerra, 1994). Prevention research shows a direct relationship between the efficacy of program implementation and the program's potential to impact participants (Botvin, et al., 1990; and Botvin, Dusenbury, James-Ortiz, Kerner, 1989). In this study, classroom teachers' responses to items on a survey questionnaire suggest the *TGFV* program was implemented as planned with a high degree of quality and fidelity to curriculum content and learning activities.

Based on the results of the current study, students participating in the *TGFV* program, as compared to control students, were more positive in their perceptions of emotional competency skills and social and resistance skills both following treatment and during the 20-week follow-up. Increasingly, effective violence prevention programs have focused on reducing antisocial behaviors by attempting to strengthen social competence and prosocial behaviors (Aber et al., 1998; Frey, et al., 2000; Van Acker & Talbott, 1999; Hawkins, et al., 1999; Flannery, 1998). In the current study, student results were complemented by teacher responses to the TCSB. Teachers in the treatment schools, as compared to those in control schools, perceived their students to show more frequent use of personal and social skills and to engage more frequently in prosocial behaviors. The study results are similar to those reported by Van Schoiack-Edstrom,

Frey & Beland (2002) and by Catalano, et al (2003). Both of these studies examined the effects of a prevention program that, like the *TGFV* program, focused on reducing antisocial behaviors while fostering prosocial behaviors.

Students participating in the *TGFV* program, as compared to control students, also evidenced more effective communication skills both following treatment and during the 20-week follow-up. According to Thornton (2002), in a study of middle school students' perceptions of the causes of violence in school, the fourth most frequently cited cause was students' inability to communicate effectively in solving disagreements, leading to misunderstandings and violence. Effective communication constitutes one of the major curriculum components of the *TGFV* program; students engage in activities that boost their cooperative skills, and their skills in active listening, analyzing media messages, and dealing with communication roadblocks.

No statistically significant differences were found between treatment and control teachers in regard to their perceptions of students' engagement in inappropriate social behaviors in the classroom. The vast majority of third graders from general education settings are not likely to engage in frequent inappropriate behaviors (e.g., name calling, yelling, pushing). As a result, the mean scores across the two teacher groups associated with engagement in inappropriate social behaviors were quite high (4.35 to 4.50 on a 5.00 point scale). This may have created a ceiling effect on the instrument that could have reduced the chances of significant program effects. However, adjusted scores on the Inappropriate Behaviors scale appeared to favor the control teachers.

To examine for the generalizability of treatment effects, students' scores on the SPFSQ were looked at in relation to the student characteristics of gender, socioeconomic status (based on free or reduced lunch) and ethnicity. The findings suggest that the *TGFV* program had a

positive impact on students' skills and perceptions regardless of gender, S.E.S. or ethnicity.

These results fit expectations based on Social Learning Theory (Bandura, 1977) and the Social Development Model (Hawkins & Weis, 1985).

The results of this study point to the effectiveness of early intervention in the promotion and reinforcement of prosocial values and behavior patterns. Thornton et al. (2000) note that violence is a learned behavior, and that the values, attitudes and interpersonal skills acquired early in life are important in the development of violent behavior. The school is the one social institution that touches most children for an extensive time period during their developmental years (Van Acker & Talbott, 1999). For this reason educators, health care professionals, and others have become increasingly focused on the promulgation and application of violence prevention programs in the elementary grades (Catalano et al., 2003). The current findings are consistent with the results of studies that show that aggressive behavior can be reduced by altering the social environment at school, such as by providing recognition for prosocial behavior (CPPRG, 1999) and by improving social competence (Hawkins et al., 1999; O'Donnell et al., 1995).

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