SKILLS FOR SUCCESS: A MULTI-LEVEL SCHOOL VIOLENCE PREVENTION INTERVENTION

Jeffrey R. Sprague
Vicki M. Nishioka
Steve Stieber
Institute on Violence and Destructive Behavior, University of Oregon, Eugene, Oregon

Abstract

Few studies have assessed the impact of combining a universal intervention to improve school discipline with a selective intervention aimed at altering the trajectory toward antisocial behavior in middle schools (Tobin and Sprague, 2003). This paper describes the methods, procedures and results of an intervention designed to demonstrate this combined effect. Two middle schools (grades 6-8) from the same urban school district in the northwest region of the United States participated as the treatment and comparison school for the two-year study. Both middle schools had high rates of student mobility, percentage of students on free/reduced lunch, and academic failure. Both middle schools adopted *School Wide Positive Behavior Support* (Sprague and Golly, in press; Sprague, Sugai, and Walker, 1998; Sugai and Horner, 1994) and the *Second Step Violence Prevention Curriculum* as universal violence prevention procedures. In addition to universal interventions, the treatment school used universal screening procedures to identify students at risk for school failure and juvenile delinquency. Selected students were placed in (a) an on-site alternative education program*, Skills for Success* (SFS) or (b) traditional school services. An analysis of school discipline referrals showed reductions in the relative percentage of total overt aggression and covert behavior from Year 1 to Year 2 for both the treatment and comparison schools. However, the treatment school showed a higher reduction (-35 percent) in overt aggression than the comparison school (-26). Both middle schools showed an increase in the relative percentage of authority conflict behaviors i.e., defiance, disruption, and school attendance with the Treatment school showing an increase of 9 percent as opposed to a 20 percent increase for the Comparison School. In addition, students placed in the SFS alternative program engaged in fewer and less severe juvenile crimes than an equivalent comparison group. This study provides promising results that support the combined use of universal interventions with selective interventions for at-risk students. Further, the application of universal screening procedures to middle school programs may assist in early identification and, in turn, increased school services for students at risk for school failure and antisocial behavior.

Introduction

Many schools in the U.S. are relatively safe places for children, youth, and the adults who teach and support them (U.S. Departments of Justice and Education, 1999). However, tragic shootings and violent crime in some of our schools have created real fears about personal safety among students, teachers, parents, and community members. In today's world, some schools have serious juvenile crime and violence problems and most schools are dealing with more severe problem behaviors e.g., bullying, harassment, victimization, drug and alcohol abuse, the effects of family disruption, poverty, and so on. These events have focused and strengthened our nation's attention upon creating safe and caring schools. Consequently, translating our understanding of the complex, interconnecting relations and factors affecting the safety and climate of schools into effective prevention practice in schools has become a national priority. The authors believe school safety and prevention of multiple problems is dependent upon two essential and interrelated courses of action: (a) identification and intervention services for antisocial and violent youth early in their school careers, and (b) developing and implementing multi component interventions in schools, communities and families (Sprague, Walker, Smith and Nishioka, in press).

Some School Practices Contribute to the Problem

Many school practices may unintentionally contribute to the development of antisocial behavior and potential for violence. For example, the overemphasis on detecting and changing individual child or youth characteristics that predict violence or disruption may cause schools to overlook many important variables (Colvin, Kame'enui, and Sugai,1993; Hawkins, Catalano, Kosterman, Abbott, and Hill, 1999; Mayer, 1995; Walker and Eaton-Walker, 2000; and Walker et al., 1996). These include, among others:

- Ineffective instruction that results in academic failure
- Inconsistent and punitive classroom and behavior management practices
- Lack of opportunity to learn and practice prosocial interpersonal and self-management skills
- Unclear rules and expectations regarding appropriate behavior
- Failure to effectively correct rule violations and reward adherence to them
- Failure to individualize instruction and support to adapt to individual differences (e.g., ethnic and cultural differences, gender, disability)
- Failure to assist students from at-risk (e.g., poverty, racial/ethnic minority members) backgrounds to bond with the schooling process
- Disagreement and inconsistency of implementation among staff members
- Lack of meaningful administrator involvement, leadership and support

These harmful school practices are all amenable to change in a positive, proactive manner. Schools can serve as an ideal setting to organize efforts against the increasing problems of children and youth who display antisocial behavior (Mayer, 1995; Sugai and Horner, 1994; Walker et al., 1996). Unfortunately, school personnel have a long history of focusing solutions elsewhere or applying simple and unproven solutions to complex behavior problems (e.g., office discipline referrals, suspensions, expulsions). They express understandable disappointment when these attempts do not work as expected (see Walker et al., 1996). Moreover, these ineffective practices may provide short-term relief for schools by eliminating the presenting problem for a brief period of time (i.e., remove the student via suspension or expulsion) but their long-term effects often include failure to focus on the administrative, teaching and management practices that either contribute to, or reduce school violence (Tobin, Sugai, and Martin, 2000). Interventions must be implemented that target whole school and individual approaches

Educators in today's schools and classrooms must adopt and sustain effective, cost-efficient practices (Gottfredson, 1997; Gottfredson, Gottfredson, an Czeh, 2000; Walker et al., 1996). Effective approaches to proactive school-wide discipline and violence prevention, for example, include (a) systematic social skills instruction; (b) academic and curricular restructuring; (c) positive, behaviorally based interventions; (d) early screening and identification of students with antisocial behavior patterns; and (e) positive school-wide discipline systems (Biglan, 1995; Lipsey, 1991; Mayer, 1995; Sprague, Sugai, and Walker, 1998; Sugai and Horner, 1994; Tolan and Guerra, 1994; Walker et al., 1995; Walker et al., 1996).

Need for a Multi-level Intervention

A clear body of research evidence on school safety indicates that (a) early identification and intervention with at-risk children in schools is possible, (b) the risk of dropping out of school, delinquency, violence and other adjustment problems is high unless these children receive help, (c) academic recovery is difficult if early intervention is not provided, and (d) schools should implement violence prevention programs that combine universal school-wide program strategies with individualized and specially developed interventions.

Although evaluation of promising and effective interventions is available (see Greenberg et al., 1999 for a comprehensive review), the efficacy of comprehensive school-wide violence prevention programs involving all students and all staff have not been studied in sufficient detail (Tolan, Gorman-Smith, and Henry, 2001).

There is a need to assess the combined impact of professional development, team-based planning, continuous assessment, providing multi-level interventions, and other sustainability factors (Gottfredson, 1997).

Recommendations from reports (Satcher, 2001) and research reviews (Greenberg, Domitrovich, and Bumbarger, 1999) on school violence provide a compelling rationale for adopting a violence prevention approach that organizes the school as a hub of intervention(s) that prevents development of antisocial peer networks and reinforcement of deviancy. The goal of these interventions is to establish "an intolerant attitude toward deviance" by breaking up antisocial peer networks and changing the social context of the school. A second goal is for schools to teach and encourage students to use socially acceptable skills and behaviors in response to events that occasion and promote antisocial behavior.

The real challenge then becomes how to give schools the capacity to adopt and sustain the processes, organizational structures, and systems that enable them to carry out these effective interventions (Gottfredson, Gottfredson, and Czeh, 2000). School violence prevention research should address both the development of evidence-based programs and methodology that will assist schools to implement these intervention programs at a level of fidelity necessary to gain improvement. In response to these urgent school problems, the authors conducted a study to develop, implement, and evaluate a multi-level middle school violence prevention program.

Study Purpose and Research Aims

This study examined the impact of a middle school violence prevention intervention at two levels. First, this investigation examined the individual and combined effects of school wide positive behavior support procedures and an alternative education intervention on the frequency of overt school discipline referrals and student self-reported aggression in two middle school programs serving grades 6-8. Second, the authors compared the relative differences in frequency and types of antisocial behavior exhibited by at-risk students served by the *Skills for Success* "school within a school" program with matched students who received regular or off-campus alternative education services. The specific research questions were

- What effect do universal intervention procedures (i.e., *School Wide Positive Behavior Support* (SWPBS) and the *Second Step Violence Prevention Curricula* have upon office discipline referral patterns and student self-reported aggression, victimization, and motivation to fight for two middle schools serving students in grades 6-8?
- What effect does the *Skills for Success* (SFS) "school within a school" alternative education intervention have upon whole school and individual student behavior outcomes?
- What are the combined effects of the SFS and universal interventions on school discipline referral and student self-reported aggression, victimization, and motivation to fight for two middle schools serving students in grades 6-8?

Universal Prevention Procedures Study

The authors present the participants, setting, procedures, measurement, design and results for the school wide intervention, and then the selective intervention for at-risk youth.

School Participants

Two middle schools (grades 6-8) from the same urban school district located in the northwestern United States participated as treatment and comparison Schools for this two-year study. The Comparison School adopted SWPBS *only* as opposed to the SFS School that implemented both SWPBS and the SFS intervention.

The neighborhoods of both schools were predominantly white and had the highest county-wide rates of child abuse, domestic violence, adult crime, and family poverty. Further, the SFS School had the highest proportion of youth with juvenile arrest records of any school in the county**.** Table 1 provides a summary of the demographic and socioeconomic status information for the participating middle schools.

Universal Prevention Procedures

The two middle schools implemented the SWPBS and *Second Step Violence Prevention Curriculum* as part of a district wide effort to build continuity and a positive school climate across their elementary and middle school programs. A more complete description of the universal components follows.

School-wide positive behavior support (SWPBS)
SWPBS is a multiple system approach to addressing the problems posed by antisocial students and coping with challenging forms of student behavior (see Sprague, Sugai, and Walker, 1998; Sugai and Horner, 1999; Taylor-Greene et al., 1997). The authors provided technical assistance and training to establish the following key SWPBS practices in both schools:

- providing clear definitions of expected appropriate, positive behaviors for students and staff members
- providing clear definitions of problem behaviors and their consequences
- regularly scheduled instruction and assistance in desired positive social behaviors to enable students to acquire the necessary skills for the desired behavior change
- delivering effective incentives and motivational systems to encourage students to behave appropriately
- school staff committed to staying with the intervention over the long term to monitor, support, coach, debrief, and provide booster lessons for students as necessary to maintain the achieved gains
- staff who receive training, data-based feedback, and coaching about effective implementation of the intervention
- systems for measuring and monitoring the intervention's effectiveness are established and used regularly.

Table 1. Demographic and socioeconomic information for school participants

Demographic and Socioeconomic Characteristics	Treatment School	Comparison School
Student enrollment	537	757
Percent eligible for free/reduced lunch	59.2	50.1
Students below academic standards in reading (percent)	51	42
Mobility (percent)	22.4	19.8
Parent education	3.10	3.04
Ethnicity (percent)	19.6	11.4
Average office discipline referrals per student	4.64	3.4
SES State Ranking (1 – 404)	124	131

Second step violence prevention curriculum (Committee for Children, 1997)
The *Second Step* program aims to teach conflict resolution, empathy, and anger management. The majority of

teachers in each participating school taught the curriculum to maximize the effect of the intervention. Research shows the *Second Step* curriculum to be effective in reducing aggressive behavior in schools and has a teacher-friendly format that facilitates fidelity of implementation (Grossman et al., 1997).

Measures

Each school used the *School-Wide Information System* (May et al., 2000) or SWIS, which is a web-based information system designed to help school personnel use office referral data to design and evaluate school wide and individual student interventions. Each school entered all of the required elements of the http://www.swis.org database including the date of the referral, student name/ID number, referring teacher/ID number, problem behavior, location of the referral, and time of day.

The authors organized and compared the school discipline referral data for students who attended each school as covert, overt, and authority conflict using the *Developmental Pathways* model that separates chronic, serious aggressive offenders from property offenders (Loeber, 1990; Loeber and Hay, 1997). Table 2 summarizes the types of referrals and offenses coded or placed in each category.

Table 2. Examples of school discipline referrals and juvenile offenses for covert, overt, and authority conflict developmental pathways offenses

Type of Offense	Types of Juvenile Crime	
	School Examples	Juvenile Arrests
Covert Pathway	Theft, lying, forgery, robbery, vandalism, fire setting	Shoplifting, theft, lying, forgery, fire setting, arson, vandalism, robbery, criminal mischief, conspiracy, fraud, burglary, unlawful entry of motor vehicles
Overt Pathway	Bullying, abusive language, harassment, physical fighting, rape, weapon	Recklessly endangering another, assault, harassment, menacing, sexual abuse, rape, weapon
Authority Conflict	Defiance, dress code violations, runaway, truancy	Disorderly conduct, curfew violations, pedestrian mall violations, runaway, traffic infraction, resist arrest, interfering with a police officer, criminal trespass

Note. School referral and juvenile offense patterns were modeled after the Developmental Pathways model (Loeber and Hay, 1997).

Universal Prevention Results

Table 3 shows the relative percentage change for the SFS and Comparison Schools for overt, covert, and authority conflict school discipline referrals. In general, both the SFS and Comparison Schools showed a reduction in the relative percentage of the intervention's target behaviors, i.e., total overt and covert behavior, from Year 1 to Year 2 of the study. The SFS School showed a higher percentage reduction (-35 percent) in total overt aggression than the Comparison school (-26 percent). Similarly, both schools indicated a reduction in the relative percentage of covert aggression across the two-year study. In contrast, both schools showed an increase in the relative percentage of authority conflict behaviors with the SFS School showing an

increase of 9 percent as opposed to a 20 percent increase for the Comparison School.

Table 3. Relative percentage change in overt, covert, and authority conflict school discipline referrals for the treatment and comparison schools

School Discipline Referrals	Treatment School			Comparison School		
	Year 1 (n = 533)	Year 2 (n = 550)	Percent change	Year 1 (n = 731)	Year 2 (n = 767)	Percent change
Overt [a]						
Fighting	300	240	- 20.0	238	202	- 15.1
Harassment	412	138	- 66.5	271	216	- 20.3
Weapons/Arson	8	6	- 25.0	10	4	- 60.0
Abusive Language	351	309	- 12.0	365	231	- 36.7
Sub-total Overt	1,071	693	- 35.3	884	653	- 26.1
Covert [a]						
Property Damage	23	38	66.2	39	37	- 2.6
Forgery/Theft	38	15	- 60.5	49	37	- 24.5
Sub-total Covert	61	53	- 13.1	87	74	- 14.9
Authority Conflict [a]						
Lying/Cheating	8	27	237.5	0	8	800.0
Disruption	1,726	1,269	- 26.5	629	674	7.2
Tardy	259	409	57.9	111	56	- 49.5
Skip	338	365	8.0	274	560	104.4
Defiance	1,212	1,796	48.2	867	960	10.7
Sub-total Authority	3,543	3,866	9.1	1,881	2,258	20.0

[a] Discipline referrals reported as number of referrals per 1,000 students.

Skills for Success "School within a School" Procedures

In addition to the universal intervention, the SFS School, provided on-campus alternative education supports for students considered at-risk or high risk for school failure and antisocial behavior. *Skills for Success*, "a school within a school program" included a universal screening system that identified antisocial and potentially violent students early in the school year as well as an array of individual student and family services to promote the student's school and community success. One full time certified teacher, one full time educational assistant, and a 0.25 FTE school counselor staffed the SFS program during the first two years (Formative and Year 1) of the project. The school counselor position was not available during Year 2 due to funding changes. The following paragraphs describe the SFS alternative education program services.

School-based services

The SFS program employed a general framework of evidence-based interventions that provided

comprehensive school support for students. These school-based services provided adult mentoring, individualized social skills instruction, increased academic support, alternative discipline, and proactive school-based case management for SFS students.

Adult mentorship

A critical goal of the SFS program was to build a connection between the student and the school. To accomplish this, SFS staff provided adult mentoring and school-based case management services for 5-6 students. Important features of the adult mentorship relationships with students included a daily check-in system adapted from *Check and Connect* (Evelo et al., 1996), increased monitoring of students during the school day, a high ratio of positive to negative interactions with at-risk students, and non-judgmental solution-focused responses to student problems.

Academic supports

SFS program staff operated a part-time classroom structured to provide positive vs. punishing behavior intervention, low student to teacher ratios, and research-based teaching strategies providing individual and small group instruction for the at-risk students. The curriculum areas addressed within the alternative classroom setting included functional life skills necessary for successful transition to responsible adult living e.g. vocational, self-management, leisure, and independent living skills. Furthermore, SFS staff conducted intensive social skills training to include basic communication, problem solving, coping with feelings, and making friends.

SFS program staff also provided students with individualized academic support through direct and consultant supports in regular classroom settings, tutorial help with regular classroom assignments, basic skill instruction, and study skills training. Regular classroom consulting allowed SFS program staff to identify specific skills and strategies that the student could use to promote positive relationships with the teacher and other students.

Alternative discipline

Alternative discipline practices included a school-wide level system, frequent positive rewards, and individualized behavior intervention that supported practice of positive social skills in regular school settings. If necessary, the authors conducted a functional behavioral assessment procedure to develop individualized behavior support plans. Consequently, student behavior support plans considered the function of – or reason why – the student used the problem behavior, taught appropriate replacement skills for socially unacceptable behavior and supported development of self-management skills (see Crone and Horner, 2002; O'Neill, Horner, Albin, Story, Sprague, and Newton, 1997).

Family support

Many students placed in the SFS program required more comprehensive services to support their success in school and the community. The families of these students often had difficulty providing the supervision and stability required to adequately support their child in school. A primary goal of the SFS family support services was to build collaborative partnerships between the student's family and the school to increase parental school involvement. The SFS program staff coordinated all school contact to minimize parent confusion and provided parents with daily reports regarding their child's school progress. Additionally, the SFS staff worked collaboratively with parents to build school/home interventions that increased positive relationships, limit setting, monitoring, praise, and constructive problem-solving - factors that reduce the likelihood of school and community failure for at-risk students (Dishion and Patterson, 1992). In essence, the SFS case manager became an ally to the parent in managing the many needs of their child.

Service coordination

When necessary, SFS staff developed a program service plan in collaboration with the student, their parents, and involved community agency representatives. The purpose of this SFS Service Plan was to organize systematic and integrated services across school, home, and community settings that would assist students in reducing anti-social behavior and increase positive school engagement. For example, SFS program staff worked collaboratively with community agencies to increase after-school supervision, encourage activities with non-delinquent peers, and build mental health support for students in managing the many stressful events of their day-to-day life.

Participants

During the two-year study, the authors used universal screening procedures to identify boys and girls at high risk for antisocial behavior. Of the 51 students recruited for the study, 26 (21 boys and 5 girls) were placed in the SFS treatment group and 25 (20 boys and 5 girls) who did not participate in the SFS intervention comprised the comparison group. Table 4 presents demographic information regarding the student participants in this research. All students in the treatment group participated in the intervention at least 6 months; the average length of participation was 9 months for the total treatment group. Once placed students received support from the program for the total time they attended the SFS School although, in many instances, the level of SFS program staff support decreased as students gained increased social and academic skills. Furthermore, the SFS School allowed students who moved from the school's attendance area but remained within the school district's boundaries to continue participation.

Table 4. Demographic and school information for the SFS and Comparison groups

Demographic and School Information	Group	
	SFS [a] (n = 26)	Comparison [a] (n = 25)
Sex		
Male	81	80
Female	19	20
Ethnicity/race		
White	92	88
Non-white	8	12
Socioeconomic Status		
Free/reduced lunch	81	72
Special Education History		
Non-eligible for Special Education	77	60
Certified Speech/LD [b]	0	8
Certified LD [b]	15	28
ESL [c]	4	4
Talented and gifted	4	0
Current special education status		

Previous juvenile arrest	27	12
No juvenile arrests	73	88
SFS program components		
School-based only	57	-
School-based and family support	27	-
School-based, family and service coordination	12	-

[a] Numbers in columns are percentages. [b] LD = learning disabled. [c] ESL = English as a Second Language.

Table 5 summarizes a series of *t*-test comparing CBCL/4-18 (Achenbach, 1991) scores for SFS and comparison group students. Overall, the authors found no statistically significant differences across total, internalizing, withdrawn, somatic, complaints, anxious, social problems, thought problems, attention problems, aggression and total scales. However, statistically significant differences were found between the SFS and Comparison group students across the externalizing and delinquent scales ($p < 0.05$). The CBCL mean scores for the SFS treatment group indicated students were in the clinical range for total, internalizing, externalizing, aggressive behavior, and delinquent syndrome scales. In contrast, the Comparison group scored in the clinical range for only the externalizing and total scale scores. Additional information regarding student characteristics is available from the second author.

Table 5. Mean scores, standard deviation, and ANOVA results CBCL/4-18 total and subscale *t*-scores for the SFS and Comparison Groups

Scale	SFS (n = 17)		C (n = 21)				
	μ	*s.d.*	μ	*s.d.*	t [a]	p	
Withdrawn	63.12	2.17	61.19	2.57	2.02	0.57	
Somatic complaints	62.33	2.13	59.19	1.84	2.03	0.24	
Anxious/depressed	64.36	2.39	62.10	2.15	2.03	0.49	
Social problems	61.59	2.23	62.53	2.39	2.03	0.78	
Thought problems	61.88	2.20	60.38	1.86	2.03	0.61	
Attention problems	65.41	2.11	64.62	2.35	2.03	0.04	
Delinquent	68.41	2.09	59.57	3.45	2.04	0.04*	SFS>C
Aggressive behavior	69.06	3.60	61.81	2.32	2.04	0.10	
Externalizing Scale	68.00	2.51	60.48	2.52	2.03	0.04*	SFS>C
Internalizing Scale	66.47	2.81	58.81	4.07	2.03	0.13	
Total Scale	67.53	2.21	63.43	2.54	2.03	0.23	

[a] df (1,36). Note: $p < 0.05$. CBCL = Child Behavior Checklist. SFS = Skills for Success Group. C = Comparison Group.

Skills for Success Alternative Education Research Design

The authors used a quasi-experimental non-equivalent control group design to investigate the impact of the SFS program upon students assigned to the SFS intervention. The independent variable for this study was

group membership i.e. SFS treatment or comparison group. For this investigation, the treatment school was the middle school that implemented both universal school procedures and the SFS alternative education program. The comparison school was the middle school that implemented universal procedures only.

Measure

The Oregon Youth Authority has designed a statewide juvenile offender tracking systems that records juvenile arrest and conviction information across the state. This database, *Oregon Juvenile Justice Information System* (JJIS), records the (a) description of the juvenile crime, (b) location of the incident, (c) date and time of the incident, (d) attending school of the juvenile offender. Inaccurate information regarding school assignment for adjudicated youth prevents accurate comparisons of juvenile arrest data between whole schools. However, juvenile arrest information for specific youth is complete and reliable.

Juvenile arrests. This study compared the juvenile arrest rate for students assigned to the SFS alternative program or treatment group with an equivalent comparison group to determine differences in both frequency of arrests and severity of crimes committed. Prior to placement, the students selected for the SFS group had over twice as many students with juvenile arrest histories and, as a whole, committed more crime than the Comparison Group. However, post placement arrest data indicates little relative percentage change in the frequency and severity of arrests for the SFS group as opposed to a substantial increase in the relative percentage change for the Comparison group. Table 6 summarizes the frequency, severity, and relative percentage change in juvenile arrests at pre-placement or the date for implementation of the SFS alternative program and post-placement for the SFS and Comparison groups.

Table 6. Relative percentage change in frequency and severity of juvenile arrests for the SFS and Comparison Groups

Group	Number of students with arrests	Change in Juvenile Arrests	
		Frequency	Severity
SFS Group (n = 26)			
Pre-placement	6 students	20	140
Total students	10 students	22	130
Relative change (percent)		10	7
Comparison Group (n = 25)			
Pre-placement	3 students	11	88
Total students	8 students	40	203
Relative change (percent)		264	131

Table 7 shows the types of juvenile offenses committed by each group.

Table 7. Types of juvenile covert, overt, and authority conflict developmental pathways offenses for SFS and Comparison Groups

Type of Offense	Types of Juvenile Crime	
	SFS Group	Comparison Group
Covert	Theft Burglary Unauthorized use of motor vehicle Conspiracy to commit a C Felony Criminal Mischief	Criminal mischief Robbery Theft
Overt Pathway	Arson Harassment Menacing Assault Unlawful mfg. of destructive device	Assault Arson Harassment Menacing
Authority Conflict	Traffic violations Interfering with police officer False information to police Resisting arrest Runaway Curfew violations Disorderly conduct	Criminal trespass False information to police officer Traffic violations Disorderly conduct Curfew offense
Drug/alcohol	MIP of liquor MIP of 1 oz. marijuana	MIP of liquor MIP of tobacco MIP of 1 oz marijuana

Note. Juvenile offense patterns modeled after the *Developmental Pathways* model (Loeber and Hay, 1997).

Skills for Success **Results**

The difference in the relative percentage change for both frequency and severity of juvenile arrest rates between students placed in the SFS program and those assigned to the non-intervention Comparison Group are promising. The trend in juvenile arrest data for the SFS group remained relatively the same as opposed to the Comparison Group that demonstrated an upward trend in number of students arrested, frequency of juvenile arrests, and severity of juvenile crimes committed. This result is especially encouraging given the clinical significant CBCL/4-18 T-scores across the delinquent, aggressive, internalizing, externalizing, and total scales for the SFS group. These CBCL/4-18 results often predict a high likelihood for continued escalation in antisocial behaviors and adjustment problems for children and youth. Further investigation is needed to determine the internal and external validity of these research findings. Additionally, continued research that examines differences between students who require school-based as opposed to more intensive and costly parent and/or service coordination services would assist implementation and refinement of the SFS model.

Discussion

Skills for Success is an intervention designed to address the diverse needs of students at risk for violence and school failure. An important feature of this violence prevention program is the integration of three components critical to building safe and caring schools: (a) universal strategies i.e., *School Wide Positive Behavior Supports* and the *Second Step Violence Prevention Curriculum* implemented at on a school-wide

basis to build and maintain a positive learning environment that teaches both academic and positive social behaviors, (b) universal screening procedures to identify students at risk and high risk for antisocial behavior, and (c) a "school within a school" alternative program that provides proactive assessment, increased academic support, alternative discipline, and case management for at-risk students. Embedded in this middle school violence prevention program is an on-going assessment and feedback system that allows schools to continuously evaluate the effectiveness of their school discipline procedures. This continuous assessment allows the school to plan systematic and strategic changes in response to the identified needs of their individual school.

Two middle schools located in the highest crime area of their county implemented the Universal prevention procedures. The whole school results from this two-year study indicate that both middle schools decreased the number and severity of school discipline referrals for aggression, fighting, weapons, intimidation, and harassment. Similarly, both schools reported a decrease in covert school discipline referrals for theft, property damage, and vandalism. It is important to note that differences in relative percentage of change in the number of discipline referrals existed between the two middle schools. The SFS School implemented universal procedures along with actively identifying and placing at-risk students in the on-site *Skills for Success* alternative program demonstrated higher reduction in school discipline referrals than the Comparison School that implemented only universal procedures. Although more study is needed, this finding provides suggests that school violence prevention programs that combine whole school interventions with individual interventions for at-risk students may have more success in reducing aggression and juvenile crime.

The increase in authority conflict discipline referrals for disruptive, defiant, and attendance infractions at both middle schools was an unexpected outcome of this research. Schools often increase the number of discipline referrals following implementation of an electronic discipline referral tracking system. A suspected cause for this increase is the higher level of fidelity and accuracy in data collection and entry electronic data collection systems provide. Both the SFS and Comparison Schools adopted the SWIS (http://www.swis.org) electronic data collection system during the Formative School year so this may explain, in part, the increase in referrals. However, a more likely explanation is the high percentage of authority conflict referrals generated in classroom as opposed to general school settings. At the end of this project, both schools had implemented the SWPBS principals at the school-wide level; however, implementation of positive behavior support at the classroom level was not complete. These results suggest that universal procedures at the whole school level may be effective in decreasing specific types of school discipline problems and have less impact on others.

The intent of the *Skills for Success* intervention was to reduce the antisocial behavior of enrolled students. The initial results of this project indicate a reduction in the frequency and severity of juvenile arrests for the SFS students. In contrast, the students who did not receive SFS services and placed in the Comparison Group increased both the number and severity of their criminal behavior. The SFS program staff identified students in the 6th or 7th grade or between 12 and 13 years of age. Consequently, this study followed these students throughout their pre-adolescent middle school experience–a developmental period that often is the onset of increased school difficulty and police involvement for at-risk students. Given this, *Skills for Success* may be an effective approach to prevent or decrease an escalation in antisocial behavior for identified youth thus increasing their chance for school and community success.

The results of this study call for additional research. First, the replication and refinement of the *Skills for Success* model in other school districts is essential for confirming the internal and external validity of this violence prevention program model. Second, research that examines the causal factors for the dissimilar effects upon aggression as opposed to non-compliant behavior in schools would help to explain the important features for implementation of a comprehensive school discipline system. For example, were these

differences a function of location in which specific behavior occur in the school, an overlooked social skill training need, or do they suggest the need for different school and classroom correction procedures for compliance as opposed to aggressive behaviors?

This study provides promising results that support the combined use of universal, school-wide interventions with individual student interventions for at-risk students to build positive school climates and reduce school violence. Further, the application of universal screening procedure to middle school programs may assist in early identification and, in turn, increased school services for students who are the most likely to engage in antisocial behavior. This focus of this multi-level violence prevention program is early identification and intervention to avoid the costly consequences of antisocial behavior and school failure for the student and our communities.

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Biography

Jeffrey R, Sprague, Ph.D., is an Associate Professor of Special Education and Co-Director of the University of Oregon Institute on Violence and Destructive Behavior. He has been a classroom teacher, teacher supervisor, behavioral consultant, researcher, and university teacher. Jeff was the Director of the Center for School and Community Integration at the Indiana University Institute for the Study of Developmental Disabilities. He has directed federal and state research and demonstration projects related to school-wide discipline, youth violence prevention, school inclusion, school-to-work transition and employment, systems change, self-advocacy, and severe behavior disorders. His research activities include applied behavior analysis, severe behavioral disorders, school safety, school violence prevention, special education teacher training, school-to-work transition, and social integration.

Vicki M. Nishioka, Ph.D., is a Research Associate at the Institute on Violence and Destructive Behavior in the College of Education at the University of Oregon. She has director residential, family support, behavioral classrooms, and vocation programs for children and youth with emotional and behavioral disorders. She has also coordinated federal in-service training programs for regular and special education teachers in the areas of behavior support, curriculum development, and classroom management. Her research activities include universal screening procedures for middle school students, alternative education, school-based mental health, systems change, and school violence prevention.

Steve Stieber, Ph.D., is a statistical analyst at the Institute on Violence and Destructive Behavior. Dr. Stieber specializes in SAS, SPSS, large longitudinal databases, test development, and web-based learning projects. Dr. Stieber received his Ph.D. in Educational Psychology/Research and Measurement from the University of Oregon in 1993. He consults with state and local agencies including the Oregon Department of Education and Oregon Research Institute.