

PeaceBuilders®:

A scientifically designed, practical model to reduce youth violence in schools and communities among elementary (K-5) school-aged children.

All children can be helped to become more resilient if adults in their lives encourage their independence, teach them appropriate communication and self-help skills, and model, as well as reward acts of helpfulness and caring.

Abstract

This quote from Emmy Werner's research on resilient children growing up in extreme adversity is the foundation to the PeaceBuilders approach to violence prevention. Conflict will not be resolved in schools, community and homes until adults and children alike dramatically reduce their use of insults and put-downs, which often cause hurt feelings, resentment, anger, resulting in conflict and violence.

Emerging research from the U.S. Centers for Disease Control and Prevention and previous research identify several important keys to reduce youth violence. First communities need to start very early teaching children and the adults who love them to be PeaceBuilders. A sense of belonging must occur at multiple levels in order to unite children, families and the broader community. Practical tools are needed that will increase teacher empowerment ('helpless' behavior by adults in the school ultimately escalates to conflict among students and between staff) and decrease the frustrating experience that most 'programs' wash out over time because they leave the issue of generalization across settings and time to chance.¹

PeaceBuilders tools and procedures aim to reinforce positive behavior throughout the whole community – at school, at home, in after school settings, in peer interactions and even in the mass media. The PeaceBuilders model is an explicit attempt to systematically arrange circumstances to provide a culture that models and reinforces prosocial behavior, reduces sources of adult attention to inappropriate behavior, and increases peer attention to displays of positive behaviors and competencies.

¹ Embry, D., et al., Investigators of the PeaceBuilders Cooperative Research Project, *Synopsis of key findings from CDC results to date & continuing research*, 10/5/96.

Narrative

I. Intended Population

Intended Population: The PeaceBuilders vision is for all schools to become peaceful learning environments for all children where everyone increases the peace through positive, respectful behaviors and students are achieving academic success.

Program Characteristics, Needs and Setting: Our communities are beset by no end of markers of violence related problems such as child abuse, domestic violence, expulsions, fighting, gangs, homicides, substance abuse, suspensions, vandalism, etc. Companionship, protection, and excitement, as well as peer pressure, were the most frequently cited reasons for joining gangs, according to intensive interviews in Los Angeles. But these initial motivations were not fulfilled. Youth felt little gang loyalty and expressed desires to quit, and their relationships with all but a few members were superficial and cautious. While youth opposed violence individually, they submitted to peer-pressure by participating in violent and illegal activities.²

Additionally research tells us that the problem of gangs in schools is limited to neither urban areas nor minority students³ and the amount of violent and aggressive acts committed by young people do not vary so much from one culture to another⁴. Furthermore, effective intervention and prevention programs need to be culturally appropriate, family-supported, implemented over time, and consistently receive input from the child, the family and appropriate professionals.⁵

Sociological studies⁶ show the clear impact of schools on reducing juvenile delinquency and other indices of developmental psychopathology, regardless of socioeconomic conditions of the students or neighborhoods. For example:

- Praise for work in the classroom and frequent public praise for good work and/or conduct lead to better student behavior.
- More decorations in classrooms and hallways are associated with better behavior.
- Better behavior and work occur when greater proportions of students have a chance to hold positions of responsibility.
- Widely publicized and implemented standards of behavior are effective in maintaining a positive school climate.

² Hochhaus C, Sousa, F. (1987-88). *Why children belong to gangs: A comparison of expectations and reality*. High School Journal. 71(2) 74-77.

³ National Center for Education Statistics, *Gangs and Victimization at School, Education Policy Issues: Statistical Perspectives*, July 28, 1995.

⁴ Schwartz, Don, M.D., pediatrician and professor of child advocacy at Children's Hospital, Philadelphia, 18th Annual Interfaith Service for Peace, Princeton University, November 21, 1997.

⁵ National Institute of Justice, (1998), *Annual Report on School Safety*.

⁶ Rutter, M. et al, (1979) *Family, area and school influences in the genesis of conduct disorders*. Pergamon Press: Gottfredson (1988). *An evaluation of an organizational development approach to reducing school disorder*. Evaluation Review; Mayer et al. (1983); *Preventing school vandalism and improving discipline; a three-year study*. Journal of Applied Behavior Analysis, Murphy et al. (1983), *Behavioral school psychology goes outdoors: The effects of organized games on playground aggression*. Journal of Applied Behavior Analysis.

- Children's environments can become powerful opportunities to coach resiliency or self-efficacy.
- Positive school climates can reduce juvenile delinquency.
- Hourly and daily structured praise systems in a school, targeted at students, staff, administrators and families, improve school discipline and achievement, as well as significantly reduce vandalism costs.
- Simple, organized games can reduce playground aggression by more than half.

A label or a name channels thought and action. Not surprisingly, the name "substance abuse prevention" and "violence prevention" channel both thought and action in contemporary society. Laws, programs and publications flow from these names. The trajectory of action increases the distance between the two names, eventually to the point that many who walk in one path holding up the banner of substance abuse prevention or violence prevention, no longer know the common starting point.⁷

The competencies and differences that push children toward social rejection and violent offenses also set the stage for substances abuse. In 1991, a landmark study was published from the Block Longitudinal Project reporting that the cognitive-behavior attributes that predict substance abuse at age 18 are patterns of parent and child behavior at age 7.⁸ How do these patterns of cognition and behavior by children interact with peers and adults in elementary school settings, where the development of behavioral pathology (substance abuse and juvenile anti-social behavior) takes place over a period of about six years? Following are major predictors:

- Peer Rejection: This social rejection 'drives' children away from positive socialization with normative peers, and typically results in at risk children socializing with other socially rejected and socially-incompetent children – creating a 'normative' peer group around anti-social behavior and academic failure.⁹
- Adult Rejection: Other adults at school tend to replicate the same set of behaviors as parents at home, which tends to elicit and reinforce aggressive-anti-social behavior. Thus, 'at-risk' children have fewer "wise adults" in their lives that might model, reward and guide positive behavior.¹⁰
- "Normal" Peer Reinforcement: It is well established that peer attention of aggressive, negative behavior maintains and increases the frequency of anti-social, aggressive behavior among at-risk elementary students. This effect is as powerful as negative adult attention.¹¹

Over the past 20 years, a literal explosion of studies has occurred on brain physiology. It is quite clear now that violence and substance abuse are as much interpersonal events as biochemical-physiological events inside the brain. What is also becoming clear is that the social

⁷ Embry, D. A Publication of Heartsprings, Inc. TM, *How school climate can prevent or increase substance abuse and violent crime*. From keynote address at Illinois Safe and Drug-Free Schools Conference, February, 1997.

⁸ Ibid.

⁹ Ibid.

¹⁰ Walker HM, Colvin G, Ramsey E. (1995). *Anti-social behavior in school: strategies and best practices*. Pacific Grove (CA): Brooks/Cole. Carr, et al., (1991) *The effects of severe behavior problems in children on teaching behavior by adults*. *Journal of Applied Behavior Analysis*, 24, 523-535.

¹¹ Northup, J., et al., (1995). *The differential effects of teacher and peer attention on the disruptive classroom behavior of three children with diagnosis of attention/deficit hyperactivity disorder*. *Journal of Applied Behavior Analysis*, 28, 227-228.

environment and the physiological 'equipment' interact in ways that have roots in evolutionary, adaptive responses. Research on post-traumatic stress and the physiology of reinforcement has been instrumental in understanding changes in the brain as an adaptive response. Brain chemistry changes in response to social events. The bulk of the human brain is designed to detect and alter the meaning of social events as a way to avoid threats and enhance 'success.' When young people experience praise and rewards for competence, models of competence and contribution and constancy across the community, then sobriety, safety and accomplishment follow across all walks of life and socio-economic conditions.¹²

The causal factors related to substance abuse and anti-social behavior are highly related, weaving together to create either resiliency or adversity for children as they mature. Exposure to social events alters the chemistry and structure of children's brains. Effective prevention strategies to foster resiliency among children and adolescents appear to be the same for both violence prevention and substance abuse. Effective prevention strategies increase cognitive/emotional, social and imitative competencies in children and adolescents. Only when such strategies are used widely across communities can the practical, scientific and mathematical probabilities and conditions be met so that people of all ages can live in peaceful, healthy and productive communities.¹³

II. Program Goals and Rationale

The PeaceBuilders' goal is simple yet momentous -- ALL SCHOOLS WILL BECOME PEACEFUL LEARNING ENVIRONMENTS WHERE EVERYONE LEARNS, PRACTICES AND ACQUIRES THE SKILLS TO ENSURE POSITIVE AND RESPECTFUL BEHAVIORS IN ORDER FOR STUDENTS TO ACHIEVE ACADEMIC, AS-WELL-AS PERSONAL AND INTERPERSONAL SUCCESS.

The rationale behind PeaceBuilders is that it is an inclusive school-climate program creating peaceful learning environments, decreasing violent and disruptive behaviors and increasing positive, respectful, thoughtful behaviors. A common language and high expectations become school norms. In order to achieve a significant probability of reducing youth violence, PeaceBuilders objectives are organized in a scrupulously planned, large-scale strategy to reach thousands of homes, children, teachers, schools and community settings quickly and effectively.¹⁴

Program Process, Outcomes and Documentation of Goals and Rationale: PeaceBuilders is an established school-based violence prevention program based on more than twenty years of government funded research in search of techniques that will reduce the growing trend of youth violence in the United States. PeaceBuilders has incorporated much of that research, particularly from the US Department of Education, the National Institute for Mental Health, Centers For

¹² Embry, D. A Publication of Heartsprings, Inc.™, *How school climate can prevent or increase substance abuse and violent crime*. From keynote address at Illinois Safe and Drug-Free Schools Conference, February, 1997.

¹³ Ibid.

¹⁴ National Institute of Mental Health, *Putting Knowledge to Use: A Distillation of the Literature Regarding Knowledge Transfer and Change*. Washington D.C.: National Institute of Mental Health, Mental Health Services Development Branch, 1976

Disease Control, and current brain research and resiliency studies into a program with confirmed results demonstrating increased protective factors and decreased risk factors in student populations. PeaceBuilders was recently selected by the nation's top violence prevention experts as one of ten model programs¹⁵ demonstrating its effectiveness for students in grades K-5.¹⁶

PeaceBuilders has been built on key findings about the brain – particularly the development of a child's brain. The brain is now known to be a significant producer and receptor of hormones and neurotransmitters that transfer information from one part of the brain to another. Some areas of the brain are more affected than others and social and environmental events trigger levels of hormones and neurotransmitters. Negative social interactions alter the levels of key neurotransmitters (e.g., serotonin, dopamine, norepinephrine) and steroids which increases the risk for violence. Positive social interactions alter the levels of these neurotransmitters for the better, increasing peaceful, cooperative behavior. If children have too little serotonin – *brought about by social rejection*, they tend to fight a lot or hurt themselves. If they have too much norepinephrine – *induced by negative gestures, words and perceived threats*, they tend to be suspicious and hypersensitive. If children have high levels of serotonin, they will learn better and be more intrinsically motivated and if they have high levels of dopamine – *effected by frequent, daily rewards for work and behavior* – *increased dopamine triggers the conversion of serotonin*, they will be more socially skilled, more insightful and equipped to learn.¹⁷

Program Characteristics Are Age-Appropriate, Change Behavior, and Increase Protective Factors: The following PeaceBuilders policies, practices, and process objectives have been validated through recent scientific research and program specific studies¹⁸.

- ✓ **Start Early** – *The underlying theory of PEACEBUILDERS is that youth violence can be reduced by initiating prevention early in childhood, increasing children's resilience, and reinforcing positive behaviors.* Temper tantrums, getting into trouble in elementary school and fighting with teachers and other students significantly predict serious antisocial behavior in the teen years and through age 30.¹⁹
- ✓ **Enhance Everyday Parenting Competence prior to a Child's Adolescence** – *Once PEACEBUILDERS is integrated as part of the behavioral norm inside the school building, and the staff agrees it's appropriate to spread the norm farther then is the time to incorporate materials from the reproducible binder SPREADING PEACEBUILDERS HOME.* When parents are given very specific tools and techniques to improve daily

¹⁵ Substance Abuse and Mental Health Services Administration, The National Clearinghouse of Alcohol and Drug Information, June 24, 1998. See Appendix 1-1

¹⁶ Annual Report on School Safety, Departments of Education and Justice, Model Programs, 1998, 39.

¹⁷ Embry, D.D. et al., *PeaceBuilders: A theoretically driven, school-based model for early violence prevention.* American Journal of Preventive Medicine. Supp. Volume 12, Number 5, Sept./Oct. 1996, 91-100. (Copy included in Appendix.

¹⁸ *Longitudinal Evaluations of Youth Violence Intervention Projects*, National Center for Injury Prevention and Control, 5/7/99; Drug Strategies Study, *Safe Schools, Safe Students, A Guide to Violence Prevention Strategies*, Washington D.C., 1998, 26-31; American Journal of Preventive Medicine, Supplement to Volume 12, Number 5, September/October 1996, 91-100

¹⁹ Walker, H.M., Colvin, G., & Ramsey, E. *Anti-social behavior in schools; strategies and best practices.* New York: Brooks/Cole, 1995

family routines, there is a significant reduction in aggressive acts leading to youth crime.²⁰

- ✓ **Increase rewards and praise for positive, daily, prosocial behavior –**
*PEACEBUILDERS is presented to educators as a portable package designed to provide students, teachers, administrators, staff, bus drivers, cafeteria workers, school volunteers, parents and the community with adaptable tools to create an environment for reducing youth violence. A systematic plan to increase daily praise and reward for positive behavior in schools and other places in the community significantly reduces the risk of youth crime.*²¹

- ✓ **Reduce children's use of insults and other acts of aggression –** *PEACEBUILDERS is based on four basic principles:*
 - *PeaceBuilders praise people™*
 - *PeaceBuilders give up put-downs™*
 - *PeaceBuilders notice hurts and right wrongs™*
 - *PeaceBuilders seek wise people™*

These principles are learned, practiced and acquired in the classroom through teacher directed infusion in the Language Arts, Social Studies and other instructional programs such as class meetings, student story writing, art, drama, assemblies, celebrations, and playground activities. The entire school staff uses strategies such as PraiseBoards, PeaceCircles, Peer PeaceCoaches, PeaceCertificates, PeaceNotes, PeacePostcards, PeaceBuilders Pledge, PeaceBuilders Cheer, PeaceGames and more.

PeaceBuilders reproducible materials and cue strategies emphasize problem solving for resolving disagreements and arguments. Everyone on the campus models and is recognized for practicing these principles. Parents become active participants and the entire school- community is motivated to become involved.

*Using stories, activities, games, role-playing, and colorful thought provoking illustrations, PEACEBUILDERS helps young people learn, practice, and acquire basic skills for managing conflict in their own lives by understanding what creates opposition and how to solve problems without violence. Learning selected positive social or PeaceBuilding skills reduce violent behavior and referrals to juvenile court.*²²

- ✓ **Increase live and symbolic models of positive behaviors --** *For optimum results, PEACEBUILDERS is implemented school-wide. It is the logical setting for a comprehensive program with transference across people, places and time. PeaceBuilders becomes a WAY OF LIFE not just a time or subject-limited curriculum. Frequently presented printed, video and live models of adult-child interactions and use*

²⁰ Psychological Bulletin, vol. 102 (1987), 187-203

²¹ Journal of Applied Behavior Analysis, vol. 16 (1983), 355-369; Aggression and anti-social behavior in childhood and adolescence. Oxford: Pergamon Press, 1979.

²² American Psychologist, vol. 48 (1993), 142-154; Behavior Modification, vol. 17 (1993), 287-313; Journal of Applied Behavior Analysis, vol. 11 (1978), 503-512; School Psychology Review, vol. 15 (1986), 289-295.

of PeaceBuilding skills increase cooperative behavior, which reduces the risk that young people will engage in aggression and violence.²³

- ✓ **Distribute practical tools to improve school climate** – *PEACEBUILDERS* provides its teachers with materials and resources which present the concepts, background and suggested activities. Included are supportive and reproducible materials for daily use in the classroom, as well as for parent training and community out-reach. Students receive a booklet (available in English and Spanish) to share and experience with their families. Both long- and short-term behavior changes by students, teachers and families that will reduce youth crime are much more likely to occur if interventions are packaged, disseminated and promoted in a user-friendly way.²⁴ There are also resources for the administrators and out of classroom personnel, which reinforce strategies and tools taught to students in the classrooms.

- ✓ **Promote the adherence of PeaceBuilding skills across many areas of the community** -- Skilled professional *PEACEBUILDERS* trainers work with teachers and school staffs to design individualized and comprehensive school-wide plans to implement and infuse PeaceBuilders concepts, strategies and lessons into the regular curriculum, instructional program, classroom management practices, and school activities. Relationships are also formed with community businesses, agencies, after school programs, and Boys and Girls clubs, which spread PeaceBuilding throughout the community. Parent involvement and parent education enable families to become PeaceBuilders. Repeated scientific studies show that limited interventions often fail to sustain their effects, and that very specific actions must be taken to ensure that positive benefits last.²⁵

Participating schools view PeaceBuilders as a way of life – by improving students' social competence, changing aggressive characteristics of the school, and increasing the availability of pro-social role models.²⁶ The program has been tested in urban and suburban elementary schools and is currently being field tested with middle school age students along with research and development for a high school program.

III. Program Description

Program Is Age-Appropriate, Educationally Significant, and Effective: PeaceBuilders is a research-based program that is simple yet extraordinarily effective, that results in more cooperation, collaboration and teamwork (for both adults and children), while reducing acts of aggression and negative behaviors. It is especially effective and necessary to implement this knowledge with young children before they have developed maladaptive ways of surviving a

²³ Journal of Social Issues, vol. 42 (1986), 155-169; Journal of Consulting and Clinical Psychology, vol. 48 (1990), 718-729; American Journal of Community Psychology, vol. 10 (1982), 317-329.

²⁴ Project LIFE (Living in Family Environments): Final Report of USDOE Grant #G008303002, National Institute for Handicapped Research of the United States Department of Education; Education & Treatment of Children (1986), 0, 307-319.

²⁵ Journal of Applied Behavior Analysis, vol. 5 (1972), 209-224, vol. 12 (1977) 285-310

²⁶ Ibid.

use positive cues, Socratic questioning, use language that projects high expectations for both academic accomplishment and behavior.

- **Students** recite together the PeaceBuilders Pledge at the start of the day and use PeaceBuilder language and principles daily, such as writing compliments to one another for acts of helpfulness, friendship, and accomplishment. Children take turns being PeaceCoaches during recess, others become FunMasters who set up activities that reduce aggressive playground behavior. PeacePals mentor younger children and PeaceTreaties are written by children to curb inappropriate behavior. Children begin to recognize when they and others are and are not using PeaceBuilders behaviors and language --- PeaceBuilding children begin to incorporate as a part of their regular vocabulary and interpersonal skills such words as *thank you, excuse me, I'm sorry, may I help, are you OK*. Children also begin to use problem-solving strategies as they recognize conflicts and disagreement.
- **The Principal and assistant principal** promote PeaceBuilders throughout the day by reading the PeaceBuilder nominations, give Principal's Preferrals, call or send a post-card home for individual student and group PeaceBuilding, and begin school meetings by noticing PeaceBuilding successes. Principals also model PeaceBuilding principles as they support and encourage team-work among their teachers.
- **Support staff** also coach PeaceBuilding in many ways each day – bus-drivers award Principal Preferrals, custodians work with students to keep their building clean, counselors and school resource personnel design intensive PeaceBuilding strategies for more seriously troubled and/or special needs students, and community volunteers all help to make PeaceBuilders a “way of life” at the school. The five basic PeaceBuilders principles or building blocks – PRAISE PEOPLE, GIVE UP PUT-DOWNS, SEEK WISE PEOPLE, NOTICE HURTS, RIGHT WRONGS – are always depicted being used in a way that increases children's competence, efficacy and power in the world with good results for the child and the broader community.
- **Parents and family members** learn about PeaceBuilding from students who make a PeaceBuilders Praise Board for home and teach the adults at home how to use PeaceCards and Praise Notes. Parents use the ‘fight-free coupons’ from PeaceBuilders to control television viewing and sibling fighting. Parents may elect to become volunteer PeaceBuilders at the school or broaden the concepts into their church, neighborhood, and workplace. PeaceBuilders parents may attend parent education workshops where they learn strategies for PeaceBuilding at home.

When school climate is positive and focused on academics and community, scientific studies show that the rate of juvenile delinquency and youth violence decline 40% or more – regardless of socio-economic conditions of the children or their neighborhoods. High frequency, daily and hourly, recognition creates the social norm and reduces a very serious problem in the scientific literature called “implicit extinction” in which high-risk children or youth perceive themselves as never recognized for their good behavior, which tends to produce revenge against those who more naturally give and more customarily receive recognition. Additionally, aerobic activity and cooperative games reduce aggression during recess or leisure time and afterwards in

seemingly hostile world – ways that tend to lead to violent and criminal behavior later in their lives. Thus, PeaceBuilders is a proactive intervention for children in K-5 schools (now evolving into the middle school), where PeaceBuilding is applied to make a difference.

The underlying uniqueness of PeaceBuilders is in its design – PeaceBuilding activities and strategies are intended to permeate every nook and cranny of the school. The application of PeaceBuilders cuts across all programmatic and membership boundaries of the school. When PeaceBuilders is integrated into the school’s educational vision and mission – creating a peaceful learning environment -- then positive behavior is more likely to flow from everyday routines, without requiring ongoing, minute by minute intervention. PeaceBuilding easily becomes as intrinsic as breathing for students, staff, parents, and community volunteers.

Among the unique features of PeaceBuilders’ schools is that there is decreased stress and frustration among staff as well as a greater sense of calmness. Among children there is much less aggression and increased enjoyment of learning.

The PeaceBuilders model emerged from work on pediatric injury control, development of self-help materials promoting behavior change, and tests of intervention ideas for reducing effects of childhood exposure to violence.²⁷ The development of violent behavior exists within a broad social context of risk or protective factors such as schools, families, neighborhood, community, and media. PeaceBuilders, therefore, includes other components that address all of these areas besides the school-based elements as a part of the model.

PeaceBuilders makes the proverb “it takes a whole village to raise a child” real through common language, common tools, and common behavior roles for people close to a child’s life. In sum, PeaceBuilders focuses on individual behavior change in proximal, interpersonal, and social settings.²⁸

Program Elements, Implementation Methods, and School Infusion: PeaceBuilders uses nine broad behavior-change techniques: 1) common language for “community norms;” 2) story and live models for positive behavior; 3) environmental cues and feedback to signal desired behavior; 4) role plays to increase range of responses; 5) rehearsals of positive solutions after negative events (“new way replays”) and response cost as “punishment” for negative behavior; 6) group and individual rewards to strengthen positive behavior; 7) threat reduction to reduce reactivity; 8) self- and peer-monitoring for positive behavior; and 9) generalization promotion to increase maintenance of change across time, places and people. The idea of PeaceBuilders as “a way of life” can be illustrated by a description of a day in a well-run PeaceBuilders school, broken down by behaviors of different people who work at, learn in, or visit the building.

- **Teachers** coach PeaceBuilding using multiple approaches throughout the day – not as a formal or stand-alone program. Teachers arrange transitions and activities that reduce common sources of conflict, link school activities and lessons to the umbrella of PeaceBuilding – such as the founding of the country, current events, children’s literature, group projects and games. Teachers praise and acknowledge students’ strengths and accomplishments. Teachers model positive interpersonal relationship interactions. Teachers

²⁷ Embry, et al, PeaceBuilders: A theoretical Driven, School-based Model for Early Violence Prevention, *American Journal of Preventive Medicine*, Supp. Volume 12, Number 5, Sept./Oct. 1996, 91-100.

²⁸ Tolan PH, Guerra NG. What works in reducing adolescent violence: an empirical review of the field. Boulder, Colorado: Center for the Study and Prevention of Violence; 1994.

class. Student work and accomplishments extensively displayed outside of classrooms and in public areas is another tool to encourage praise and recognition from adults and family.²⁹

A major component of PeaceBuilders in schools is the use of self-monitoring, a scientifically proven tool when used on a daily basis, for improving academic success and positive self-discipline. Such self-monitoring is also linked to higher levels of achievement and is useful for all students.

PeaceBuilders provides staff with simple tools that dramatically reduce disruptions in the classroom and allows time for more learning.³⁰ PeaceBuilders schools emphasize the use of group activity rewards for both academic accomplishments and citizenship. Group activity rewards are especially useful for children with social difficulties. PeaceBuilders offers teachers tips and procedures to help with everyday transitions between classes, during lunch, bus rides, assemblies, classroom guests and volunteers. Special PeaceBuilders packages have been developed for 'guest teachers' – substitutes -- and all visitors to the building with instructions about praising students and staff for PeaceBuilding.

In Summary, PeaceBuilders is a school-wide violence prevention program for elementary schools (K-5). Schools are the logical setting for changing the cognitive, social, and imitative characteristics of children at risk for violence. PeaceBuilders attempts to change characteristics of the setting (antecedents) that trigger aggressive, hostile behavior. PeaceBuilders increases the daily frequency and salience of live and symbolic prosocial models, enhances social competence, decreases the frequency and intensity of aggressive behaviors, rewards prosocial behaviors, and provides strategies to avoid the differential or accidental reinforcement of negative behaviors and conflict. School-wide implementation of PeaceBuilders by all staff ensures that a child who enters kindergarten learns how to be a PeaceBuilder and continues to improve his or her pro-social skills throughout the elementary years. The program incorporates a strategy to change the school climate implemented by staff and students and is designed to promote prosocial behavior among students and adults. Children learn, practice, and acquire and adults reinforce and model five simple principles:

- PRAISE PEOPLE,
- AVOID PUT-DOWNS,
- SEEK WISE PEOPLE AS ADVISORS AND FRIENDS,
- NOTICE AND CORRECT HURTS WE CAUSE, and
- RIGHT WRONGS.

IV. Evaluation Outcomes

Description of Evaluation Studies, Design, and Outcome Data: PeaceBuilders was launched as a scientifically designed, practical program to reduce youth violence using a school-based model to spread into the broader community. PeaceBuilders is a part of a study funded by the U.S. Centers for Disease Control and Prevention (CDC).³¹ Eight schools from two school districts with high rates of juvenile arrests and histories of suspensions and expulsions were

²⁹ Embry, et al, PeaceBuilders: A theoretical Driven, School-based Model for Early Violence Prevention, *American Journal of Preventive Medicine*, Supp. Volume 12, Number 5, Sept./Oct. 1996, 91-100.

³⁰ Ibid.

³¹ *PeaceBuilders: Evaluating the impact of a social-cognitive competence program for K-5 children on youth violence*. See appendix 1-2

grouped into four matched pairs. Within the four matched pairs, schools were randomly assigned as intervention or control schools.

The outcome evaluation has and is still assessing aggressive and delinquent behavior, social competence at home and school, parent-child relationships, school discipline, and Peace Building behaviors. Process assessments include school observations and surveys of teacher practices and satisfaction. Assessment surveys were administered at baseline and then every six months (in the spring and fall) for two years. Outcome assessments include student self-reports (individual interviews for the younger children and group surveys for children in grades 3 to 5); teachers' reports, including a 37-item Discipline Survey for their classroom and school and a 45-item questionnaire assessing the PeaceBuilders intervention; playground observations, conducted one to two times each school semester by observers trained to rate aggressive behavior of children and positive and negative behavior of playground supervisors; parents' self-reports (mailed surveys); and school and law enforcement records.

Two thousand seven hundred and thirty-six students completed baseline surveys, of whom 55% were Hispanic, 26% Caucasian, 4% were African American, 14% were Native American, and 1% were other or unknown. The number of boys and girls in the sample were nearly equal. Twelve percent of children in grades 3-5 reported that during the 'past week' at school they had been threatened with a gun or knife and 42% reported seeing gang activity. Thirty-three percent of fifth graders reported trying to hit someone in the 'past week.'³²

Outcome data from the CDC-funded study will provide an assessment of the replicability of these reports of reduced aggression and hostility.³³ Researchers are continuing to study data and developing progress reports. We are hoping to have an updated progress report in the next few days. We will forward to you to attach to this document as soon as we receive. See appendix 1-3.

Program Reports Relevant Evidence of Efficacy and Measurable Outcomes. Evaluation Design and Analysis Used Adequate Controls, Is Reliable and Valid, and Used Analysis Appropriate to Data: As a part of the CDC study, an evaluation of nine elementary schools from two school districts in Tucson, Arizona was conducted to evaluate whether children were visiting school nurses less often after an elementary school-based violence prevention program was implemented during the 1994-95 school year.³⁴

For the school years 1993-94 and 1994-95, the weekly rates of nurse visits for all reasons, all injuries, and injuries caused by fights in each of the four intervention schools were compared with those of three control schools (Two control schools were excluded from the analysis because the nurses' logs from an entire school year were missing). A nurse or other health professional recorded data (e.g. time in and out, student name, grade, reason for visit, treatment plan, illness or injury, parent notification) in a log for the year preceding the intervention and for the school year during which the project was implemented. Nurses did not know their records would be used for evaluation as the records were not a part of the initial CDC

³² Embry, D.D., Flannery, D.J., Vazsonyi, A.T., Powell, K.E., and Atha, H. (1996). PeaceBuilders: A theoretically driven, school-based model for early violence prevention. *American Journal of Preventive Medicine. Youth Violence Prevention: Description and Baseline Data from 13 Evaluation Projects*, 12, 91-100. See appendix 1-3

³³ Ibid.

³⁴ Krug, et al., *An Evaluation of an Elementary School-Based Violence Prevention Program Using Nurses' Logs as a Preliminary Indicator of Effectiveness*. See appendix 1-4

evaluation plan. A team of researchers, using a standard protocol, visited the study schools and analyzed data using SAS software.³⁵

The results of this study include:

- Between 1993-94 and 1994-95, the rate of visits/1,000 student days decreased 12.6% in the intervention schools while remaining unchanged in the comparison schools.
- The same trend was detected for injury-related visits to the nurse.
- Rates of fighting-related injuries changed little in the intervention schools but increased 56% in the control schools.
- Analysis of covariance (ANCOVA) confirmed that injuries and visits to nurses decreased in intervention schools relative to control schools.

Conclusions drawn from this data indicate that in the intervention schools, injuries and visits to the school nurse decreased over the two-year period and that the intervention may have contributed to this change

Ideally, nurses' logs should be used in conjunction with other data sources (e.g., student self-reports, playground observations, disciplinary records – all components of the broader CDC study – however, when no resources are available for evaluation, nurses' records could serve as a simple and inexpensive assessment tool.³⁶

California sites that implemented PeaceBuilders have reported a reduction in such market variables as teachers' estimates of aggressive behavior/social skills, referrals to the principal, school transfers, and aggression on the playground. For example: (see appendix 1-5)

- As families moved out of neighborhoods in which PeaceBuilders had been implemented, 66 asked to keep their children in the school instead of transferring to another school. Suspensions decreased by 65%.
- One school reported that playground fights dropped from 125 to 23; another school reported a decrease from 180 to 24.
- Decrease in classroom disruptions.
- Referrals to principal decreased by 50%.

Of most significance to individual PeaceBuilder schools is the ability to monitor and market their own success stories of violence prevention along with increased incidents of PeaceBuilding behaviors within their school communities. When a school staff feels discouraged because they don't see the payoffs of their PeaceBuilding efforts, a few statistics can act as a shot in the arm. Furthermore, positive peace building evidence is the essential key to growing broad-community support of and involvement in the program.

Schools are provided reproducible, evaluation materials³⁷ along with technical assistance about how to use existing school reporting data (e.g. homework completion, student and faculty absentee reports, school vandalism, discipline referrals, parent involvement, and other anecdotal evidence) to demonstrate program success.

In 1999, the El Hogar de la Paz Collaborative surveyed teachers, students and staff at participating schools in Tucson, Arizona to determine effectiveness of four violence prevention programs targeting preschool children, K-5 students (PeaceBuilders), children in grades 6-12, and students in alternative school settings. Teachers rated PeaceBuilders curriculum as useful (highest category on evaluation survey) and reported that the program was effective in reducing

³⁵ SAS/STAT User's Guide: Volume 1, Version 6 Edition. Cary, NC: SAS Institute; 1990.

³⁶ Krug, et al

³⁷ PeaceBuilders Evaluation Tools. See appendix 1-6

aggression in their school. Student surveys strongly supported that students felt better at school because of the PeaceBuilders program.³⁸

During school year 1995-96, the Alisal Union School District conducted an evaluation of the PeaceBuilders program to provide information on its effectiveness as-well-as guidance for district-wide implementation. The City of Salinas, California, through the Community Development Block Grant Program, and the Salinas Valley Memorial Hospital Foundation, funded the study. Four methods were employed and results demonstrated a significant and positive change in every outcome indicator along with positive survey results from each population.

- Collection of eight outcome indicators (disciplinary actions, violent episodes, tardiness, absences, vandalism, volunteerism, and community donations).
- Teacher's Survey.
- Principal's Survey.
- Support Staff's Survey.³⁹

All communities would benefit from what has happened in Salinas, California – a community wrought by divisions – where the whole community has become a PeaceBuilders community. Now, the local governments, social services, the churches, businesses, and schools are all involved in a partnership of becoming PeaceBuilders. The secret is readily available through PeaceBuilders -- a common language and tools that decrease risk factors and increase protective factors in children.

V. Program Features Lending to Ease of Replication

Conditions Required to Replicate Program: PeaceBuilders is purposely designed to be flexible in order to meet individual school circumstances. All schools weave PeaceBuilding into their everyday routines to make it a “way of life,” not just a time- or subject-limited curriculum.

The training and materials provided to schools is the key to replication.

Program Guidelines and Materials for Training and Support:

A. Implementing PeaceBuilders with a multi-phase training process:

1. A Pre-intervention Orientation: Faculty receives an orientation about the overall program, materials provided, study results, and schedule. A videotape is made available which includes statements from teachers, students, counselors, and others. Questions are answered and benefits highlighted. The school leadership team works with staff in making the decision whether or not to become a PeaceBuilders School. All schools are encouraged to develop a school-wide structure for PeaceBuilding.
2. Training workshop. Staff receives a 4 hour implementation inservice on the basic PeaceBuilders model. Using a specially developed PeaceBuilders Implementation Plan as a guide, see appendix 2-2, staff is given time to work in small groups – e.g. grade-levels, job types – to design specific grade level activities related to curriculum,

³⁸ Powers, S, & John, C; Creative Research Associates, U.S. Department of Education Safe and Drug-Free Schools, El Hogar De La Paz, Tucson, Arizona. See appendix 1-7

³⁹ Evaluation Report, School Year 1995-96, Alisal Union School District, *PeaceBuilders Program*, May 31, 1996. See appendix 1-8

content, instruction, and classroom management. All adult personnel including support staff, cafeteria, clerical, custodial, bus drivers, and school volunteers design PeaceBuilder activities related to their specific job functions that reinforce students learning about, practicing and acquiring PeaceBuilding skills.

3. Ongoing Technical Assistance. PeaceBuilder consultants are available for on-site and telephone assistance on an as needed basis to individual school sites.
4. Study sessions are offered for specific issues identified by the schools.
5. Periodic forums are offered to schools to review and discuss success and challenges.
6. Occasional one-day institutes are offered focusing on applying and creating new materials and interventions (e.g. orientation of new teachers and students, special need students, classroom management, ideas for across the curriculum infusion).
7. School sites/districts are provided opportunities to send staff members to specialized 'train the trainers' workshops. This enables school site and district personnel to provide on-going support for implementing and expanding the PeaceBuilders program within their own schools/districts.
8. Administrators are provided tools for supporting, supervising, monitoring, and evaluating the progress of their PeaceBuilders program.

B. Implementing PeaceBuilders with easy to use materials and resources.⁴⁰

1. For the Student --*I Help Build Peace* story/workbook, (published in both English and Spanish) in which the child and adult are heroes (a self-modeling paradigm) using PeaceBuilding tools. This becomes a link between the schools and the homes.
2. For the teacher -- materials and resources that include activities and strategies to assist children develop PeaceBuilding skills -- ACTION GUIDE, ALL IN ONE BINDER, SPREADING PEACEBUILDERS TO HOME AND PLAYGROUND.
3. *Reproducible Binder* inclusive of master forms for PraiseNotes, Principal Preferrals, Peace Treaties, etc.
4. *Leadership Guide* assisting the Principal support PeaceBuilding throughout the school.
5. *Staff Manual* with strategies to involve all support staff in school peace building.
6. *The Intensive Guide* with additional strategies specifically developed for working with more 'at risk' students.
7. *Parent education* events and tools providing families with opportunities to use PeaceBuilding at home with their children.
8. *Students and adults use incentives as rewards such as pencils, stickers, erasers, and T-shirts.*
9. *Community Outreach Materials* to assist schools involve the entire community in peace building and to assist with grant writing and fundraising.
10. *Assessment and Evaluation Tools*, including surveys for Principals, Teachers, Support Staff, are provided to each school with technical assistance offered for data collection and subsequent and ongoing planning.

It is important to note that PeaceBuilders materials are dynamic and can be adapted to the specific needs of PeaceBuilders schools. PeaceBuilder materials have been revised over the years

⁴⁰ Sample PeaceBuilders materials have been included in the appendix.

with input from the users to ensure that they are compatible with on-going processes and procedures and easily infused into the instructional program. A PeaceBuilders National Advisory Council, including educators from the United States and Australia (where PeaceBuilders is also being used.) review and assist in the development of materials.

There are no 'specialized' skills required to become a PeaceBuilder or a PeaceBuilding School – only earnest commitment. Everyone can be a PeaceBuilder.

The process of enrollment has been by word of mouth – from educators, parents and community members. Schools calling Heartsprings, the home of PeaceBuilders, receive packets of information which describe the materials and components of the program. School personnel may visit demonstration sites and communicate with principals and school staffs in PeaceBuilders schools. Educational consultants with PeaceBuilders are often requested to make a presentation to a school staff and/or leadership team to assist in their decision making process. The entire process is about induction into a positive community norm and set of expectations that allows everyone to build peace within their schools, homes and communities. See appendix 2-3

In calculating cost-effectiveness, it is important to look at benefits as well as costs. An initial implementation of PeaceBuilders costs approximately \$11.85 per student. Cost-effectiveness analysis suggests that schools will recoup about \$3.87 for each dollar spent for PeaceBuilders through reduced vandalism, suspensions, expulsions, reduced injuries due to fighting, increased days of attendance, and other costs associated with aggressive, violent and anti-social behavior. Costs for maintaining the program after the first year are substantially lower. New technology, packaging, and production processes are being considered which would substantially lower costs to the schools.

ATTACHMENT A: Claims of Program Efficacy

Program Claims

1. PeaceBuilders Students in grades K-5 (intervention schools) demonstrated overall decline in student aggressive behavior and an increase in student prosocial behavior compared to a comparison group (wait-list schools) over a two-year period as measured by teacher rated social competence.¹

Evaluation Methods

Comparison group design of 'intervention schools – Wave 1' and 'wait-list control schools – Wave 2' was based on a randomized nonequivalent control-group design with repeated measures
Intervention Schools = four [4] K-5 school sites – 2,736 students
Wait-list schools = four [4] K-5 school sites – 1,105 students
Assessments²

Evidence of Efficacy

Achenbach Teacher Report Form

At baseline, 46% of males were rated above clinical cutoff score ($T=70$, $>98\%$) on aggression. After increasing to 49% at Time 2, teacher reports of boys' at high risk for aggressive behavior declined to 41% at Time 3 and 43% at Time 4. At baseline 16.1% of boys were rated by teachers to be poor in social competence. Teachers rated 35% of girls at baseline to be at high risk for aggressive behavior that remained stable at Time 2, before declining to 29% at Time 3 and 31% at Time 4. At baseline teachers rated 17.8% of girls to be low in social competence. These data illustrate both the high-risk status of the sample and overall declines in teacher rated aggressive behavior from baseline to Time 4.

Walker-McConnel teacher report

Child prosocial competence consistently improve from baseline ($X=69.21$) to Time 4 ($X= 75.85$), $t(5) = 3.30$, $p < .05$. This trend held for each of the three subscales on the W-M, school adjustment, peer accepted behaviors, and teacher preferred behaviors, all at $p < .05$. Teacher reports of child aggressive behavior decline from baseline to Time 4, although the decline is not statistically significant. Even though they reflect a slight increase from Time 3 to 4, Time 4 levels of aggression are still lower than baseline.
Time 4 ($X= 75.85$), $t(5) = 3.30$, $p < .05$. This trend held for each of the three subscales on the W-M, school adjustment, peer accepted behaviors, and teacher preferred behaviors, all at $p < .05$. Teacher reports of child aggressive behavior decline from baseline to Time 4, although the decline is not statistically significant. Even though they reflect a slight increase from Time 3 to 4, Time 4 levels of aggression

¹ 1996 American Journal of Preventive Medicine. *Youth Violence Prevention: Descriptions and Baseline Data from 13 Evaluation Projects*, Supplement to *American Journal Of Preventive Medicine* Volume 12, Number 5, 91-100. See appendix 1-3

² Teachers received outcome data-collection packets at the time of the student survey data collection. Twice each year teachers and school staff completed the 37-item Discipline Survey for their classroom and school and a 45-item questionnaire assessing the PeaceBuilders intervention in their school and classroom. For each child in their classroom, teachers also completed the 19-item Walker-McConnell Scale of Social Competence-SF, and the aggressive behavior subscale of the Teacher Report Form, which has extensive validity and reliability including long-term score stability. At baseline the teacher measures demonstrated high reliability (alphas at least .93).

are still lower than baseline.

Summary: Studies show that PeaceBuilders-type techniques have external validity and histories of systematic replication with diverse children and settings.^{3, 4} and can be implemented effectively by aides and others in a school setting without extensive use of mental health professionals.^{5, 6}

Lessons Learned: Conducting an evaluation across developmental stages (e.g., primary school, middle school) complicates assessment, because each stage requires different measurement instruments. Changing the behavior of one child may involve changing the behavior of 10 or more other people.⁷

2. PeaceBuilders Students in grades K-5 (intervention schools) demonstrated overall decline in student aggressive behavior and an increase in student prosocial behavior compared to a comparison group (wait-list schools) over a two year period as measured by student self-reported peace building behavior.⁸

Comparison group design of 'intervention schools – Wave 1' and 'wait-list control schools – Wave 2' was based on a randomized nonequivalent control-group design with repeated measures
Intervention Schools = four [4] K-5 school sites – 2,736 students
Wait-list schools = four [4] K-5 school sites – 1,105 students

For students in grades K-2, data were collected through individual 20-item, one-to-one interviews. The 20-items were piloted tested with same-age children; individual interviews took about 5-8 minutes to complete. Data for children grades 3-5 was collected through classroom group surveys. At least two research assistants were present to provide instruction and answer questions. Surveys included 100 items and took about 30-40 minutes to complete. Students completed basic demographic items, relationship conflict with peers and teachers adapted from the Conflict Behavior Questionnaire (CBQ); the acceptance/rejection and firm/lax control subscales of the short form of the Child Report of Parental Behavior Inventory; items from the delinquency and aggressive behavior subscales of the Youth Self-Report; items assessing child report of parental monitoring originally

³ Harris KR. Self-monitoring of attentional behavior versus self-monitoring of productivity: effects on on-task behavior and academic response rate among learning disabled children. *Appl Behav Anal* 1986; 19; 417-23.

⁴ Fishbein JE, Wasik BH. Effect of the good behavior game on disruptive library behavior. *Appl Behav Anal* 1981; 14: 89-93.

⁵ MacPherson EM, Candee BI, Hohman R. A comparison of three methods of eliminating disruptive lunchroom behavior. *Appl Behav Anal* 1974; 7; 287-97.

⁶ Hogan S, Prater MA. The effects of peer tutoring and self-management training on on-task academic and disruptive behaviors. *Behav Disor* 1993; 18: 118-28.

⁷ 1996 American Journal of Preventive Medicine. *Youth Violence Prevention: Descriptions and Baseline Data from 13 Evaluation Projects*, Supplement to *American Journal Of Preventive Medicine* Volume 12, Number 5, 91-100. See appendix 1-3.

⁸ 1996 American Journal Of Preventive Medicine. See appendix 1-3.

Assessments⁹

developed by Patterson and Dishion and modified for use with elementary school children by Flannery et al.; and items developed specifically to assess PeaceBuilder concepts and behaviors at home and at school. Trained observers conducted observations of playground behavior one to two times each school semester on random days of the week until all grades were observed at each school.

RESULTS: Among children in grades K-2, more males reported getting into trouble with teachers, and getting into fights than did girls. Children in grades 3-5 reported high rates of violence-related experience and behavior. Overall, 12% said that during the past week someone had tried to hurt them with a gun or knife, 42% reported seeing gang activity at school, 27% hit someone else, 13% tried to start a fight, and 15% had been sent to the principal's office for disciplinary problems. All of these behaviors were reported more significantly by males, except seeing gang activity, which was similar for boys and girls. When compared with children in 4th and 5th grades, children in 3rd grade reported the highest frequency of being threatened with a weapon in the past week (17%) and of seeing gang activity in the past week (49%). Conversely, 33% of 5th graders reported trying to hit someone in the past week.

Initial findings show that over a two-year period student self-reports showed decreases in aggressive behavior from Baseline to Time 3, and a slight increase at Time 4, although Time 4 levels are still below baseline. An examination of individual items for student self-report show a decrease from baseline to Time 4 in the percentage of students reporting the highest rates of problem behavior. AT Time 4, 11% of 3rd graders reported being threatened with a weapon, and 39% said they saw gang activity in the past week, both declines from baseline. Across data collection points, the overall sample reported the following rates for selected behaviors:

⁹ The final number of student surveys collected represents an 85% participation rate for children in grades 3-5 and a 72% participation rate for K-2. At baseline, parents completed 658 surveys (14%).

	<u>Baseline</u>	<u>Time 2</u>	<u>Time 3</u>	<u>Time 4</u>
Hurt with gun/knife	12%	7.9%	8.8%	9.1%
Saw Gang Activity	42%	37.8%	35.8%	34.4%
Hit someone	27%	20.3%	23.0%	27.2%
Tried to start Fight	13%	12.5%	8.5%	10.5%
Sent to Principal's office	15%	16.5%	12.5%	14.2%

Similar to the examination of data on an item level, child self-reports of extreme aggressive behavior showed declines across time. An examination of children who endorsed the category "A lot" illustrates the decline from baseline in the frequency of problem behaviors. Children responded to the frequency of the behavior during the 'past week.'

<u>Item</u>	<u>Baseline % "A lot"</u>	<u>Time 4 % "A lot"</u>
Someone tried to hurt me with gun/knife	7.0	3.7
Saw kids doing gang activity	23.8	16.1
I said I would hurt/hit someone	9.0	5.6
Other kids tried to hurt me	12.3	7.5
I hit someone	13.8	11.5
Tried to get other students to fight	6.3	4.5
I got sent to office for trouble	7.9	7.0
I was mad each day	10.8	7.1

Teacher ratings demonstrate clear effect size (ES) improvements for social competence and more moderately for aggressive behavior. Child self reports with the exception of initial effects for PeaceBuilder behaviors, are less powerful discriminators between Wave 1 and Wave 2 groups. Overall females were rated by teachers to be more socially competent than males particularly with respect to school adjustment and teacher preferred behavior. Differences in gender were maintained across all four data collection points. Females rated themselves higher on PeaceBuilding behaviors while males rated themselves as being more aggressive. The sample was predominately Hispanic (51%) and Caucasian (28%) although we also have a significant number of Native Americans (13%). While none of the mean differences are significant (due to the large variance in scores), teachers rate Native American youth to be the most aggressive, followed by African-American and

Caucasian children. Hispanic and Asian youth were rated the least aggressive by teachers. Findings for observations of playground behavior are inconsistent across school sites, partly due to the practice of some schools having children of multiple grades on the playground at the same time, varying degrees of confinement of the playground observation area, and the need to average across two different raters who were scanning the same playground area. Nonetheless, there is some evidence that Time 4 ratings of playground child aggressive behavior are systematically and significantly lower than ratings at any of the other first three point of data collection.

Summary: If careful attention is paid to refining and pruning the strategies used in PeaceBuilders, there is a promise for reducing violence—a finding consistent with prior real-world research that led to the creation of the model.^{10, 11}

Lessons Learned: Children want to be PeaceBuilders – especially when we, as adults, encourage them to do so. Data from parents and families are difficult to obtain.¹²

In the fall of 1993 there were 2,393 students enrolled in the four intervention schools and 1,506 enrolled in the three control schools. In the seven schools analyzed, 51,373 visits to nurses were counted: 26,629 visits in the 1993-94 school year and 24,744 visits in the 1994-95 school year. The weekly rate of visits per school ranged from 10.6 to 73.5 visits per 1,000 student days. Injuries accounted for 43.16% of the total number of visits. The weekly rate of injuries per school ranged from 2.0 to 42.2 injuries per 1,000 student days. Among the sample of 6,768 injuries, 6% were classified as confirmed fighting episodes, 42.7% as possible fighting-related injuries and 51.3% as non fighting

3. As a result of PeaceBuilders, injuries and visits to the school nurse decreased over a two-year period in 'intervention schools' as compared to wait-list schools as measured by a review of nurse's logs.¹³

Comparison group design of 'intervention schools – Wave 1' and 'wait-list control schools – Wave 2' was based on a randomized nonequivalent control-group design with repeated measures
Intervention Schools = four
[4] K-5 school sites – 2,736

¹⁰ Walker HM, Colvin G, Ramsey E. Anti-social behavior in school: strategies and best practices. Pacific Grove, CA: Brooks/Cole; 1995.

¹¹ Mayer GR, Butterworth T, Nafpaktitis M, Sulzer-Azaroff B. Preventing school vandalism and improving discipline: a three-year study. Appl Behav Anal 1983; 16:355-69.

¹² 1996 American Journal of Preventive Medicine. *Youth Violence Prevention: Descriptions and Baseline Data from 13 Evaluation Projects*, Supplement to *American Journal Of Preventive Medicine* Volume 12, Number 5, 91-100. See appendix 1-3.

¹³ Krug E, Brener N, Dahlberg L, George R, Powel K, (1996), *Building Peace: A pilot evaluation of a school-based violence prevention program*. See appendix 1-4.

students
Wait-list schools = four [4]
K-5 school sites – 1,105
students

related injuries.

When data were aggregated across the intervention schools, the weekly rate of visits for all reasons per 1,000 students days decreased by 12.6% ($p < .001$) between 1993-94 and 1994-95. In the comparison schools, the overall rate remained unchanged. An analysis by school revealed that not all schools followed these overall trends. The rate of visits for all reasons decreased ($p = .002$) in one of the three control schools.

The patterns for injury related visits were the same as patterns for visits for all reason. Between 1993-94 and 1994-95, the rate of weekly injury-related visits per 1,000 student days decreased by 12.6% ($p < .001$) in the intervention schools, however, no significant change was observed in the control schools. Rates of confirmed injuries due to possible fighting or non fighting-related incidents did not differ significantly between 1993-94 and 1994-95.

The differences noted above could be due to differences in the baseline rates and to possible differences among schools. To control for these factors, we performed an analysis of covariance. The results of the ANCOVA confirmed that, relative to the control schools, the intervention schools had a significant reduction in the rates of visits to nurses for all reasons and the rates of visits due to injuries only. The results also indicated a significant reduction in the rates of injuries related to confirmed fighting and the rates of non fighting-related injuries. The rates of injuries due to possible fighting episodes did not differ significantly between intervention and control school.

The rates of visits for all reasons and visits for injuries per 1,000 student days decreased significantly in the intervention schools while remaining almost unchanged in the control schools. The major change in the control schools was an increase in the rate of confirmed fighting episodes.

¹⁴ Ibid.

¹⁵ 1996 American Journal of Preventive Medicine. *Youth Violence Prevention: Descriptions and Baseline Data from 13 Evaluation Projects*, Supplement to *American Journal Of Preventive Medicine* Volume 12, Number 5, 91-100. See appendix 1-3.

Summary: These findings confirm the impression of the school nurses that children were visiting their offices less frequently during the implementation of the PeaceBuilders program. Results of the ANCOVA suggest that the program may have contributed to the change in number of injuries and visits to school nurses over the two-year period and may have prevented an increase in the number of injuries caused by fighting in the intervention schools.¹⁴

Lessons Learned: Colleagues are good sources of information about how to deal with problems. Collect and graph data frequently to track program implementation and progress.¹⁵

Please Note: This chart – Attachment A – only reflects results and evidences of efficacy from evaluations meeting *Safe, Disciplined, and Drug-Free Schools* criteria:

1. Evaluations with pre-post comparison groups
2. Multiple assessments with randomized test and control groups

This chart does not reflect the results reported from several other evaluations which showed decreases in negative behaviors including fights on the playground, suspension, expulsions and other indicators of aggression as described in the narrative and included in the Appendices.

Appendix

1. Evaluation Studies

1. SAMHSA 6/24/98 Press Release.
2. *PeaceBuilders: Evaluating the impact of a social-cognitive competence program for K-5 children on youth violence.*
3. Embry, D.D. et al., *PeaceBuilders: A theoretically driven, school-based model for early violence prevention.* American Journal of Preventive Medicine. Supp. Volume 12, Number 5, Sept./Oct. 1996, 91-100.
National Center for Injury Prevention and Control-Longitudinal Evaluations of Youth Violence Intervention Projects. Wednesday, May 26, 1999.
Memo, October 5, 1996, Synopsis of key findings from CDC results to date & continuing research, to Friends of PeaceBuilders Research Project in Pima County, from Investigators of the PeaceBuilders Cooperative Research Project: Dennis D. Embry, Daniel J. Flannery, Alexander T. Vazsonyi & Hank Anth
4. Krug, et al., *An Evaluation of an Elementary School-Based Violence Prevention Program Using Nurses' Logs as a Preliminary Indicator of Effectiveness*
5. Flyer-- *Do you have any data on PeaceBuilders and how it works?*
6. PeaceBuilders Evaluation Tools
7. Powers, S, & John, C; Creative Research Associates, U.S. Department of Education Safe and Drug-Free Schools, El Hogar De La Paz, Tucson, Arizona. Pp. 6-15
8. Evaluation Report, School Year 1995-96, Alisal Union School District, *PeaceBuilders Program*, May 31, 1996.

2. Program Materials

1. Sample PeaceBuilders tools as described on flyer – all are available upon request. *Included are copies of the PeaceBuilders Action Guide, three of eight binders from the All-In-One Binders #1-8, Spreading PeaceBuilders to Home and Playground, and Story/Workbook.*
2. PeaceBuilders Implementation Plan.
3. PeaceBuilders Inquiry packet.