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An analysis of the relationship between school safety and social integration

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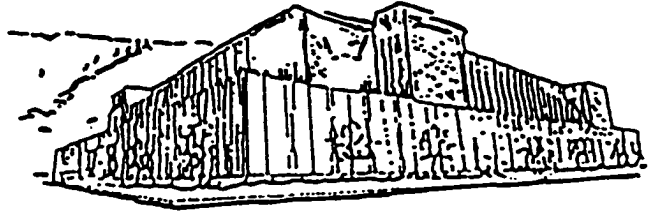
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AN ANALYSIS

OF THE RELATIONSHIP BETWEEN

SCHOOL SAFETY AND SOCIAL INTEGRATION

By

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M.Ed., The University of Montana, 1979

Presented in partial fulfillment of the requirements

for the degree of

Doctor of Education

The University of Montana

1998

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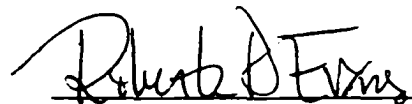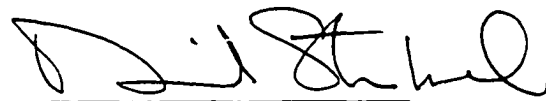Date

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An Analysis of the Relationship between School Safety and Social Integration

Adviser: Roberta D. Evans, Ed.D. ~~PDF~~

This study investigated the relationship between pro-social programming and intervention strategies for at-risk behavior in Class A and AA high schools in Montana participating in the 1997 Montana Youth Risk Behavior Survey. As a descriptive correlational study, student's behaviors were the dependent variables and the programming and intervention strategies outlined by the schools' principals were the independent variables. The sample consists of 30 schools representing approximately 64% of the students enrolled in Montana high schools. Thirty-six principals returned surveys, for a return rate of 97%. Approximately 48 percent of the sample population is male and 52 percent is female. Ninth-graders account for the majority of the sample (35%), ranging to a low of 19% in grade 12. White students comprise 85% of the sample, 7% American Indian, 2 % Hispanic, 1% Asian, .5 % Black, and 4 % self-identified as "other."

The study determined the existence of a statistically significant relationship between the school pro-social programming/intervention programming/policy strategies and the behaviors exhibited by the students in the sample. It further determined that students whose schools provide pro-social programming, intervention programming and policies promoting social integration experience less violence than students from schools which do not provide such programming and structure. Students whose schools provided pro-social programming, intervention programming and policies promoting social integration experienced less crime, tobacco use, drug use, sexual behavior, driving when drinking alcohol, and suicide ideation than students from schools which do not provide such programming and structure.

Pro-social programs were determined to be diverse in their levels of effectiveness. The "Programming Power Score" was developed to illuminate the difference in effect and may provide administrators concerned with school safety a means to assess their efforts, enabling them to select programs that have the greatest impact. Results from this study revealed that schools with programs in conflict resolution, problem-solving skills, peer mediation and in-school suspension—combined with a resource officer at their disposal—provided the safest environments.

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CHAPTER ONE

INTRODUCTION

America has become a perilous place for children. Increasingly, the violence viewed from afar on television has spilled over into our neighborhoods. Worst of all, it has encroached upon the one place children should be safe: their schools. This violence is present across the United States and strikes in every community, from urban centers through the suburbs to our most remote rural communities. Statistics indicate that violent crime is increasing dramatically, to the point that homicide is the single greatest cause of death among selected segments of our population between the ages of 12 and 25. Such tragedy strikes at the heart of all professional educators. In many school districts, boards of education continue to debate whether to deal directly with the issue or continue to ignore it in a futile attempt to foster a belief that their own communities and schools will remain immune from these "external" problems.

In reality, however, this is not a story of violence somewhere else. It is a story about the youth in every community in America, and these children have names and faces. Each is someone's son or daughter, brother or sister, grandson or granddaughter. For professional educators, each is a very precious person. Indeed, inherent in the social fabric of public schooling is the expectation that schools have both a moral and a legal obligation to protect the children entrusted in their care.

Americans are besieged with reports of crimes committed by children. Images of violent incidents occurring on school premises are infused into our collective consciousness through all the vehicles of the news media as well as by professional journals, national reports, and in the anecdotes of political rhetoric. Some samples include the following:

- Thousand Oaks, California: "Counselors were called in to help students cope today with the memories of a 12-year-old boy, often taunted as 'Chubby,' pulling a gun from a bag, fatally wounding a classmate and killing himself. . .[Reports indicated that] nobody really had anything against him. He was just someone to pick on" (News Chronicle, March 3, 1987).

- Approximately 282,000 students are physically attacked in America's secondary schools each month. Almost 8 percent of urban junior and senior high school students missed at least one day of school a month because they were afraid to go to school. Approximately 5,200 of the nation's one million secondary school teachers are physically attacked at school in a month's time (Greenbaum and Turner, 1990).

- Drug traffic and abuse are serious concerns for educators. Teens see drug abuse as the number one problem among their peers (Gallup, 1987). In fact, the American public considers the use of drugs the biggest problem facing public schools today (Gallup, 1990).

- With homicide arrests of juveniles rising 170 percent nationwide in the past decade, the question of whether minors should be sentenced to death presents a growing dilemma for prosecutors, judges and juries. The 47 death row inmates awaiting execution for crimes they committed as minors reflect a 39 percent increase since 1983 (Saul, S., 1997).

- California Gunman Kills 6 and Injures 30 at school. "In less than five minutes, the automatic-fire volleys of the lone gunman took a terrible toll: 5 pupils and the assailant himself were dead, 29 other pupils and one teacher were wounded, 15 seriously" (Education Week, 1989).

- "We even see that today's criminals and the crimes they commit have changed, often into an awful, senseless unspeakable kind of violence and often committed by those we once

thought of as imbued with innocence and incapable of such depravity, our young people"

(Racicot, 1997).

• From 1959 to 1993, murder rates have tripled and suicide rates have quadrupled among

U.S. children under age 15. . .73 percent of the 1995 homicides were among U.S. children

(Meyer, 1997). DiIulio (1996) says, "homicide is now far and away the leading cause of death

among African-American teenagers."

• The spread of youth violence is "a major public health crisis" asserted H.E.W. Secretary

Donna Shalala at a conference entitled Safeguarding Our Youth: Violence Prevention for Our

Nation's Children (Lawton, 1993).

• In her Newsweek article, "Wild in the Streets," Kantrowitz (1993) described youth

violence as a virtual "epidemic" to the point that in some cases it is becoming a way of life.

"Some experts project that violence is devastating this generation as surely as polio did some 40

years ago," she noted.

Statement of the Problem

Americans have a strong desire to rid their schools of crime. The sixth goal of Goals 2000

(United States Department of Education, 1991) expresses this desire by asserting boldly, "By the

year 2000, every school in America will be free of drugs and violence and will offer a disciplined

environment conducive to learning." Unfortunately, in terms of reform, schools have been

accused of merely making the "additive fix" or the adoption of yet another program as a cure to

each new ill. Given the fiscal constraints of the future, however, it is increasingly important that

educators better understand the impacts of their existent programs before adopting new, improved

ones. Perhaps this is nowhere more crucial than in the area of school violence. Here schools

seeking to improve are faced with a serious void in research investigating the efficacy of the programs they currently have in place. Further, little has been done to explain the interactions between students' violent or at-risk behaviors and their school environments. An investigation of the relationship between current programs and the level of school violence is fundamental to our understanding of the factors associated with improved school safety. Such information could assist schools in employing a more systemic approach to change in the area of decreasing school violence and improving safety. Educators and the public need accurate and reliable data on school violence in order to develop programs and strategies addressing this issue. Violence in America's schools threatens an entire generation of students, yet to date there has been little effort to evaluate the many existing programs aimed at reducing it.

Schools often adopt prevention programs in an ad-hoc manner. A new problem raises its head, and soon new programs surface to combat the new evil. Many schools have adopted information-oriented, single-issue programs that lack research evidence to support their effectiveness (Elias et al., 1997). Schools often unthinkingly define themselves through their fears by installing programs that seek to control what they fear (e.g., anti-gang, anti-drugs, anti-theft, anti-sexual harassment campaigns). There is a growing body of literature that suggests a better way of providing safe school environments. Schools should define themselves by what they promote and what they represent --positive involvement in active learning, engaging extra- and co-curricular activities, esteem-building within a meaningful context, nurturing classrooms, students who show concern for others through service to the school and their community. Hawkins' (1992) longitudinal research relates student health and safety to the teaching of pro-social behaviors; others are researching the relationship between students' social and emotional

health and their cognitive and behavioral development. "A growing body of evidence indicates that systematic, ongoing education to enhance the social and emotional skills of children provides a firm foundation for their successful cognitive and behavioral development (Elias et al., 1997, p. vii).

Purpose of the Study

The purpose of this study is to determine what relationship exists between the safety of students in high school and the kind of program shaping students' experiences at school. More specifically, the study will elucidate the specific level of behavioral risk factors experienced by students in Montana high schools and determine how such factors as pro-social school activities and prevention/intervention practices are associated with students' risk behaviors.

Research Questions

The following research questions will frame this inquiry:

1. What is the level of crime and violence reported by students?

2. What is the relationship between specific high school pro-social programs and students' reports of violent incidents in schools?

3. What is the relationship between high school pro-social programs and students' reports of high-risk behaviors?

4. What is the relationship between high school violence/high-risk behavior intervention/prevention programs and students' behaviors?

Each question will be investigated utilizing the hypotheses discussed in Chapter Three.

<u>Definitions of Terms</u>

For the purposes of this study and analysis of its foundational literature, the following terms are defined:

<u>Alternative education</u>. Schooling to be called Alternative Education must meet at least two criteria: 1) a significant increase in the proportion of a youth's experiences of success over failure; and 2) provision of a warm, accepting relationship with one or more adults (Gold, 1978).

<u>Amphetamine, speed, meth,</u> or <u>ice</u>. Drugs that stimulates the central nervous system, alleviates fatigue, and produces a feeling of alertness and well being. Although it has been used for weight control, repeated use of the drug can cause restlessness and insomnia (Kusinitz, 1988).

<u>Anger management</u>. Anger is part of the human condition, and it is important for children to learn to acknowledge anger and express it in an appropriate manner. Anger management teaches children to recognize their anger and express it in an appropriate manner and minimize its influence on personal behavior (Miller, Brodine & Miller, 1996).

<u>Assault with a weapon</u>. An assault with a weapon is the threatening of another person with physical violence or physically hurting someone, using an instrument calculated to do harm or cause death (Nolan, 1990).

<u>Assault</u>. An assault is the threatening or the unlawful touching of another without justification or excuse (Nolan, 1990).

<u>Barbiturates</u>. A category of drugs that cause depression of the central nervous system and respiration. The drugs have toxic side effects and when used excessively, can lead to tolerance, dependence, and death (Kusinitz, 1988).

Bullying. Bullying is a form of aggressive behavior combining power and aggression. The power differential between bullies and victims can be a function of physical size and strength, reputation within the peer group, and/or an imbalance in numbers of children, as in group bullying. It can be either physically or verbally aggressive behavior. It can be direct (face-to-face) or indirect, such as gossip or exclusion. Occasionally bullying can be identified by the distress that it elicits in the victim (Miller, Brodine, & Miller, 1996). Bullying, according to Olweus (1991) occurs when a victim is exposed, repeatedly and over time, to negative actions on the part of one or more others.

Character and values education. A school program whose design is "clarify(ing) one's own personal values and adopting society's moral values" (Merrill, & Harmin, 1988, p.25).

Cocaine, powder, crack or freebase. Drugs whose primary psychoactive ingredient is derived from the coca plant and acts as a behavioral stimulant (Kusinitz, 1988).

Colors. Unique or distinctive dress worn by gang members (Trump, 1993).

Conflict resolution programs. Model conflict resolution programs contain three components: 1) creating a cooperative context, 2) instituting conflict resolution/peer mediation training 3) using academic controversy to improve instruction (Johnson, 1995).

Dysfunctional families. The majority (of people) learn aggression in the home. The process begins with interactions described as coercive parenting. This is parental behavior that is frequently irritable and inconsistent. At times, the parents' supervision of the child is overly lax or nonexistent, at other times harsh and severe. The coercion takes the form of threats, reprimands, and corporal punishment. Families characterized by these behaviors are labeled dysfunctional

(Goldstein, 1996).) Families which operate in "chaos" could be added to this definition (Kohn, 1996).

Ecstasy or MDMA. A drug made with both LSD and amphetamines. In addition to hallucinations, ecstasy may cause depression, nervousness, nausea and vomiting.

Fight. Two or more persons involved in a hostile encounter or altercation (Nolan, 1990).

Gang fight. A fight between two or more members of an identified, organized gang.

Gang. A group of adolescents and young adults who spend time with one another, engage in violent, criminal behavior, and share turf concerns, symbols, special dress, and colors (Miller, Brodine, & Miller, 1996).

Hallucinogens. Drugs that change the user's feelings, sense of sight, sense of hearing, sense of smell and/or process of "thinking." Hallucinogens cause users to hallucinate, to hear and see things that are not there. They change a user's perception of reality (Hurwitz, 1996).

Hate Crime. Any act, or attempted act, to cause physical injury, emotional suffering, or property damage through intimidation, harassment, racial or ethnic slurs and bigoted epithets, vandalism, force, or the threat of force, motivated all or in part by hostility to the victim's real or perceived race, ethnicity, religion, or sexual orientation (Bodinger-deUriarte. 1991).

Illicit drug use: The illegal use of prescription or non-prescription drugs.

Inhalants. A variation of drug abuse that got started in the late 1950's. The inhalants include vapors of contact cements, paints, lacquers, dry cleaning fluids, transmission fluids, liquid waxes, shoe polish, lighter fluids, nail polish removers, degreasers, nitrous oxide, butyl nitrite, and refrigerants (Hecht, 1980).

In-school suspension. An administrative disciplinary action removing a student from regular classes for a specified period of time (usually five days or less) and placing the student in an isolated, highly structured environment.

Intervention Strategies. The people, programs or acts undertaken by a school to interrupt the cycle of violence. Specifically, these include: a) peer mediation, b) other dispute mediation, in-school suspension education, d) alternative education, e) human relations groups, parent/community involvement, g) social service agencies, and h) pupil personnel services.

Judicial or consequence-oriented punishments. The consequences meted out by schools, youth court, or law enforcers as a result of misbehavior or law breaking. These consequences range from notifying the parent/guardian to expulsion from school or other punishments determined by a court.

LSD or lysergide. A hallucinogenic compound whose side effects include bizarre behavior and reportedly, psychosis and chromosomal damage (Friel, 1974).

Marijuana, pot, cannabis. A substance that contains tetrahydrocannabinol, which is a hallucinogen (Hurwitz, 1996). Hashish is a psychoactive substance derived from hemp that has a high concentration of THC (Kusinitz, 1988).

Memorandum of agreement. A written protocol for the integration of services between community human service agencies (Guthrie & Guthrie, 1991).

Mentor. Jacobi (1991) observed that the definitions for mentors were "so diverse that one wonders if they have anything at all in common beyond a sincere desire to help students succeed" (Jacobi, 1991, p505). Others defined mentors as "adults who assume quasi-parental roles as advisors and role models for young people to whom they are unrelated" (Hamilton & Hamilton,

1992, p. 546). The level of mentoring may vary from mentors rarely meeting with their mentees and simply developing a relationship with the youth to mentors developing character and competence (social and academic) among their mentees.

Mescaline. A chemical found in the button of the peyote cactus that causes hallucinations when ingested (Hurwitz, 1996).

Montana Youth Risk Behavior Survey. A survey administered by the Montana Office of Public Instruction as part of its Safe and Drug Free Schools grant.

Morphine, heroin, opium and codeine. Compounds derived from the poppy plant. Methadone is a synthetic form of morphine (Kusinitz, 1988). The United Nations (The United Nations and Drug Abuse Control, 1995) lists heroin as "the greatest public health hazard".

Mushrooms. Fungi containing psilocybin, a naturally occurring hallucinogen (Hurwitz, 1996).

Out-of-school suspension. An administrative disciplinary action removing a student from the school for a specified period of time. Short-term suspensions refer to those of five days' duration or less; long-term suspensions refer to those exceeding five days in length (Zantal-Wiener, 1995).

PCP, angel dust, killer weed or phencyclidine. A dangerous hallucinogen originally developed to block pain or as a sleep aid but whose side effects include confusion, hallucinations, anxiety and seizures (Hurwitz, 1996).

Peer mediation. The use of students as mediators. Mediators are neutral people who help others resolve a conflict by assisting them through the negotiation process to reach an agreement that the participants believe is fair and workable. Mediators do not tell disputants what to do,

decide who is right or wrong, or discuss what they would do in such a situation. Mediators are

facilitators, with no formal power over the disputants. Mediation produces these results: 1) a

resolution benefiting all disputants, 2) the relationship between the disputants is as good as or

better than before the conflict, 3) the disputants' negotiating skills or self-confidence in using

them increases (Johnson & Johnson, 1996).

Policy Strategies. Published statements, written on behalf of the school, designed to set

standards of behavior and conduct or establish processes for addressing misbehavior or

misconduct. Such policies may consist of the following: a) code of conduct/expectations of

behavior, and b) memoranda of agreement with law enforcement officials.

Possession of a weapon. Having on one's person or immediate access to an instrument

readily capable of causing a serious or fatal wound or injury (Nolan, 1990).

Problem solving/decision making skills. Programming which: 1) teaches an ordered

sequence of skills which underlies a competent interpersonal behavior, 2) focuses on decision-

making situations which are relevant to the student, 3) provides a cognitive strategy for

thoughtful problem-solving (Elias, & Clabby, 1988).

Pro-Social Programming. Those programs or activities in a school designed to teach

proper behavior within the school or community. Some programs include: a) conflict

resolution/peer mediation, b) anger management, c) mentoring, d) law-related education, e) police

officer visits to school, g) character and values education, h) prejudice education, i) theater/arts

expression programs, j) advisory groups, k) parent education (Hawkins, 1992; Minnesota

Statutes, sec. 126.77, 1996).

Pupil personnel services. Services schools provide students in addition to instructional

services. Examples include guidance, nursing, job placement, mental health, speech and hearing

services.

Racial/ethnic conflict. A conflict that has racial or ethnicity as the base cause.

Robbery. The use of force or fear to take money or an article of value from another

(Nolan, 1990).

Sex offense (assault). Subjecting another to any sexual contact without consent

(Montana Code Annotated, 1995, Sec. 45-5-502).

Social services agencies. The collection of federal, state and local agencies which provide

human services.

Steroids or anabolic steroids. Chemicals that alter production of hormones. Steroids are

normally ingested, either orally or injected, to improve athletic performance. The wide-spread

misuse and corresponding health risks have resulted in federal laws prohibiting trafficking,

possession and use. Users subject themselves to more than seventy side effects ranging in severity

from liver cancer to acne and including psychological as well as physical reactions (Goldman,

1992).

Theft. The taking of another's property without the owner's consent with the intent to

deprive the owner of value (Nolan, 1990).

Violence. Physical harm or the threat of physical harm directed at a person by one or

more others (Olweus, 1986, 1991).

Weapon. An instrument that can reasonably be used in defeating, threatening or injuring

another (Nolan, 1990).

Limitations of the Study

The following limitations are inherent in this investigation:

1. The sample is comprised of Montana high school students and principals; therefore, generalizablity is expressly limited to high school environments whose school populations are similar to the study group.

2. The data for this study will be drawn from Class AA and A schools representing 74% of the student population in Montana.

Significance of the Study

To date, no one has comprehensively studied safety in secondary schools in a contextual manner. It is crucial that research be conducted which examines the impacts of specific school programs insofar as they are associated with risk behaviors and violence on campus. Establishing a base line against which to compare profiles of schools' behavioral patterns and programmatic interventions has the potential of influencing the decision-making of professional educators everywhere. The American public believes crime and violence to be associated with urban blight, yet this study challenges that stereotype by reporting the level of crime and violence experienced by students in predominantly rural secondary schools.

This study will influence the decision-making process regarding the support for specific pro-social activities. First, it will determine the relationship between prevention and intervention school programming and the risk factors exhibited by Montana youth. If there are significantly better approaches to curbing violence and risk factors across Montana, their identification could lead policy makers to create safer schools for students. Second, this study will determine the relative effects of prevention programming, intervention strategies, policy strategies and punitive

consequences upon risk behaviors reportedly taking place on school property. Ultimately,

decision-makers may be able to use these findings to create the safe high school environments that

are the foundation for learning.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The crimes committed by youth and potential solutions for reducing them have been

studied at several levels-- through the perspectives of the individual, the school, the family, and

society at large. The first section of this chapter presents theoretical models of juvenile

delinquency and youth crime as a function of the individual in order to lay the foundation for the

area of study. The second section examines youth crime as a function of the school environment.

The third section views crime and violence from a social development perspective as well as the

traditional judicial view. Specifically, social development theory views the rising crime and

violence in our schools as a flaw in social development rather than as unpredictable delinquent

behavior. The fourth section in this chapter involves a review of the major national and local

studies of school crime and violence and the factors identified in the literature as making

significant contributions to crime and violence in our schools. This section also reviews

recommendations that have been set forth as potential solutions for diminishing violence in our

schools and society. Finally, the fifth section reviews current research related to social

development and social-cognitive development theories within a health risk and resiliency

framework since these may provide the greatest hope for improvement in the school environment.

<u>Theories of Youth Crime as a Function of Individual Responsibility</u>

Sociologists and psychologists have developed key research-based theories to explain the phenomenon of crimes committed by youth. This section will first examine research based upon an individual's deviance from society's norms, then progress to an analysis of deviance within the school setting, and finally consider deviance in the context of social-learning and social-cognitive theories.

McPartland and McDill (1977) identified five major themes of youth crime, beginning with psychological aspects wherein individual differences in personality development and self-perception of youthful offenders are contrasted to the general population. Their additional themes are rooted in sociology and seek to explain the individual youth's reactions to environmental conditions of poverty, crime-filled neighborhoods, and alienation, resulting in differential development and varying degrees of socialization. Goldstein, Apter, and Harootunian (1984) augment the work by McPartland and McDill, arguing that the five themes should be viewed as a psychodynamic process and that deviant human behavior is the result of a faulty personal control system. Earlier, Rich (1981) tentatively advanced a similar position in applying the theory to the school setting. He believed that viewing social deviance within the school context and focusing prevention measures on the school environment could reduce school violence.

Violence, conflict, gangs, and other physical and psychological threats to student success abound within American society and schools. Yet despite these threats, some schools are able to create and maintain a physically and psychologically safe environment that nurtures the future's

adults. Hawkins (1992) said that bonding to school is a protective factor for violence and criminal activity. Schools that provide opportunities for active engagement of students provide the first element of the student's bonding; the second element consists of social, emotional and cognitive skill development. Hawkins views social and emotional skill development as linked to cognitive skill development. In fact, as the Perry Preschool Project illustrated, social, emotional and cognitive skills are developed in concert and serve as an effective, long-term protector against criminal and anti-social behavior as adults (Mulvey, Arthur & Reppucci, 1993). Students develop these skills through their school experience, and they represent another level of preventive measures against violence and crime. Additionally, schools that provide students with meaningful recognition for their school achievement are providing a supportive structure. It is within this context, weighing risk factor against protective factor programming, that this study seeks to examine school safety.

Finally, Allen, Nairne, and Majcher (1996) offer divergent views of adolescent deviance based in social-learning theory and social-cognitive theories. They postulate that social-learning and social-cognitive theories are complementary and can set the framework for interventions that allow improvement of protective factors and elimination of risk factors. They view the physical and emotional health of the child within the social and cognitive school environment as part of the child's integrated social environment.

Seriously Damaged Personalities

The theory of seriously damaged personalities views offenders as having faulty personality structures or major mental and emotional disorders which leave them unwilling or incapable of controlling their destructively aggressive drives and antisocial behavior. This theory holds that

criminal or deviant behavior is a symptom or manifestation of a personal maladjustment or character disorder, and children who commit violent criminal acts are likely to be seriously emotionally disturbed (McPartland & McDill, 1977; Goldstein et al., 1984).

Mednick studied 14,427 non-familial adoptions in Denmark between 1927 and 1947 in order to test the hypothesis of genetic factors as a cause of criminal behavior. The study found that men whose biological and adoptive fathers were both non-criminals, only ten percent had criminal records. If the adoptees' adoptive fathers had criminal records, "the rate was scarcely higher then adoptees whose biological and adoptive fathers both were non-criminals." However, "adoptees whose biological father was a criminal but who were adopted and raised by non-criminals were twice as likely to become criminals then the other two groups" (Mayner & Wheeler, 1982, p. 168). Concurrent with these theorists, some biologists speculated that the most severe offenders may carry an extra Y chromosome, XYY, or super-male syndrome. A study conducted on the effects of the extra chromosome showed that 80% of those arrested for any crime and 90% or more arrested for violent crime possessed an extra Y chromosome (Johnson, 1972). Johnson further noted, "individuals with the XYY anomaly have not been found to be more aggressive than matched offenders with normal chromosome constitutions." He concluded that "aggression is a complex rather than a unitary process, and it is under multi-factored control. Aggression may be influenced by both genetic and learned factors."

Labeling and Stereotyping

Eric Berne (1973) and his followers initially developed the theory of Transactional Analysis. Concerned with the process of labeling and stereotyping, this view holds that after a period of time and feedback from significant others, an individual comes to see him or herself as

"bad" or as part of a delinquent lifestyle. Such self-definition occurs when others communicate expectations of negative behavior to the individual. The person then internalizes this image, seeking to associate with people in the same category, who reinforce the image. This process may be viewed as a self-fulfilling prophecy in that the stigma of a label sets in motion a chain of events which reinforces and ultimately validates the stereotype (Berne, 1964; Goldstein et al., 1984; Harris, 1967; McPartland & McDill, 1977; Steiner, 1974).

Restricted Opportunities

The theory of restricted opportunities is seemingly that the most often stated sociological theory applied to crimes committed by adolescents, juvenile delinquency, and youth gangs. This theory maintains that although most young people aspire for the American dream of the middle-class way of life, many children from disadvantaged backgrounds find that legitimate avenues for achieving this way of life are either impossible or difficult for them to attain; thus, they are more likely to engage in criminal acts. Some assert that these acts are representative of a deep frustration directed at the system holding them back (McPartland & McDill, 1977; Goldstein et al., 1984). Others contend that these young people still value the goals of the dominant society or majority culture but lack the means to attain them. By making poor choices in a world of limited opportunities, their behavior often falls into the categories of deviant and illegal acts.

Subcultural Differences

A second sociological theory involves the existence of subcultures within the total population. These subcultures support differing values and attitudes, and certain groups do not subscribe to the majority culture's goals of the American dream. Contrary to the restricted opportunities approach, this view rejects the notion that the aforementioned goals serve as the

source of frustration. Insteac this model promotes a belief in different-valued subcultures

exhibiting their preferred behaviors (McPartland & McDill, 1977) in an attempt to achieve

culturally specific goals.

A second interpretation of the subcultural differences theory contends that some families,

neighborhoods, and communities are so devastated by poverty, crime and/or violence that a

different tolerance for violence evolve in such subcultures as the underclass (Webb & Sherman,

1990). Here, violence is an ever-present fact of life, and individuals within such a subculture

grow to accept violent actions as normal behavior.

Prolonged Adolescent Dependence

As the third sociological theory, prolonged adolescent dependence postulates that our

modern industrial society has created a new stage in the life cycle between childhood and

adulthood, known as adolescence. Specifically, McPartland & McDill (1977) argue that

adolescence is extended "when individuals have the talents and energies to assume adult

responsibilities but there is little for them to contribute and no way for them to earn their

independence from their parents." Aimless adolescents become stressors upon society in that

young people unable to satisfy their needs for independence through socially acceptable means

may resort to delinquent or criminal behavior as a method of asserting their adulthood.

Each of these five theoretical perspectives has also been viewed in terms of a

psychodynamic process. In the psychodynamic view, we best understand human behavior

through an analysis of the internal processes and forces that are assumed to be the basis for our

behavior and choices. Thus, deviant behavior is seen as a symptom of underlying personality

disturbances, and it occurs when the individual's control system is underdeveloped or improperly

developed, resulting in an inability to control his or her impulses (Goldstein et al., 1984). Further, the lack of internal control may be situationally specific. For example, a youngster may do well in the home where he or she has been raised and be very capable of functioning within this familiar environment. Yet, when thrust into the school environment with its multiplicity of demands, this same child may find that his or her system of self-control is confused and taxed beyond capability. The resulting conflict and frustration may lead to violent or unacceptable behavior.

Theoretical Models of Youth Crime as a Function of School Environment

James Rich (1981), rather than focusing upon the individual's seeming maladjustment, suggests that examining social deviance within the school or societal context can best reduce school violence. His work outlines four theories: a) social disorganization approach, (b) conflict approach, c) labeling, and (d) differential association. Additional research has augmented several of these.

Social Disorganization Approach

Rich believes a social system is organized through a consistent set of norms and values that foster orderly and predictable social interaction among its members. Some of these norms cut across nearly all organized societies and may include such things as upholding honesty or viewing incest as taboo. Others are society-specific, as in the case of cars being driven on the right side of the road, for example. Social disorganization results from a state of normlessness. Whenever social disorganization occurs, destructive and deviant behavior will result. Social disorganization may result from an inadequate institutionalization of goals, inappropriate procedures for achieving those goals, weakened social control, and deficient socialization practices (Rich, 1981).

As applied to schools, this approach suggests that a planned and purposeful inculcation of positive goals and behaviors for students may be beneficial. It is underscored by the philosophy that all members of the school community can succeed in such an environment. However, if some parts of the school programs fail to function as planned, social disorganization theory would suggest that those deficient parts (e.g., deviant students) need repair. Specifically, the students' goals, processes, or behaviors need "fixing." In this process, there is no implication that the student, individually, should be excluded from the environment.

Conflict Approach

The Conflict Approach views society as engaged in a struggle between contrasting and opposing groups. Each group pursues its own values, which may conflict with the values of other groups. Any group whose values are outside the majority culture can be viewed as deviant. Thus, deviance in public schools is usually defined in terms of deviance from white middle-class values and is largely a matter of determining whose values will prevail (Rich, 1981). The Oakland, California, discussion of teaching Ebonics, the dialect of some inner-city African-American students, is a recent example of such conflict (USA Today, 1997).

Labeling Approach

Whereas Berne (1973) believed that it was parents who give damaging labels to their children, Rich extended this notion to include all authority figures. In claiming that deviance can be explained by the interaction with an authority figure that imposes a label on the student, this approach is tested regularly in schools. Teachers and principals may classify a student and attribute negative status to the label, referring to children as truants, juvenile delinquents, and

problems. Although deviance is identified by the label, once again it is the act of labeling which

may make it self-fulfilling (Berne, 1964; Rich, 1981; Steiner, 1973).

Differential Association

Differential association postulates that both deviant and unlawful behaviors are learned in

the same manner as socially acceptable and lawful behaviors. Specifically, deviant behavior is

learned through a process of social interaction within social groups. Learned behaviors include

techniques, attitudes, and rationalizations needed to violate the prevailing society's norms. The

deviant's primary group associations encourage the violation of norms, and the deviant is often

isolated or has insufficient association with positively-normed people to counteract these

tendencies (Rich, 1981).

Cernkovich and Denisoff (1978) advanced their argument that "value orientations are the

most significant determinants of behavior in general and of juvenile delinquency in particular." In

their model, Cernkovich and Denisoff believe that "social-class position affects the individual's

perception of the opportunities available to him for reaching certain goals, and this view of the

opportunity structure in turn affects degree of commitment to conventional values"(p. 126).

Thus, a strong attachment to conventional values will tend to inhibit delinquency involvement, but

weak commitment will tend to make delinquency a predictable outcome. Few adolescents will

maintain a strong attachment to conventional values if they believe they cannot achieve them. To

prevent delinquency, this approach recommends that school personnel support and assist students

in seeking rewarding experiences by enabling them to achieve goals that are important to them.

Theories of Youth Violence as a Function of Social Learning and Cognition

Pepler and Slaby (1994) offer additional views of the ways in which adolescents develop

violent and criminal traits. They assert that social-learning and social-cognitive theories are

particularly instructive because they focus on long-term continuity and change regarding criminal

and violent behavior. Each has greatly expanded our understanding of how humans acquire,

develop, and maintain aggressive behavior traits, as well as how to control aggression. These two

key theoretical areas are helpful in understanding how the potential for criminality and violence

develops in children as well as how interventions should be planned and implemented. To that

end, social learning and social cognitive theories have been crucial to our understanding of how

interpersonal violence and criminality can be reduced or prevented. These theories are often seen

as complimentary and viewed within the developmental framework already presented.

Social-Learning Theory

Bandura (1983) defined social learning as the framework within which criminal and violent

behaviors are learned and sustained through environmental experiences. Further, he asserted that

criminal and violent behavior can be learned responses to frustration and may even be experienced

as successful ways of achieving goals. According to social learning theory, criminal and violent

behavior can also be learned vicariously by observation or through direct experience whereby the

individual has received positive or negative reinforcement for these behaviors. Finally, he asserts

that it is the individual's own cognitive processes which guide and regulate his or her behavior.

Bandura (1983) and Pepler and Slaby (1994) contend that violent and criminal behavior is learned

in the same way that pro-social behavior is learned: via modeling, direct experience, and cognitive

processing.

Social-Cognitive Theories

Pepler and Slaby (1994), in reviewing social-cognitive models, found that each focuses upon the many ways in which cognitive factors are related to aggression. Cognitive factors, in their view, are hypothesized to: a) be acquired through learning and development; b) contribute to an individual's own proactive exposure to and interpretation of social experiences that foster aggression; c) mediate an individual's aggressive response to particular social experiences; d) account for individual continuities and consistencies in patterns of aggression, victimization and bystander support for violence; and e) be amenable to change in ways that prevent or reduce aggression (Pepler & Slaby, 1994).

Huesmann and Eron (1989), as well as Steiner (1973), served to ground the theories of Pepler and Slaby with their earlier work in developing a cognitive-script model, suggesting that aggressive behavior is controlled by "scripts" learned in early childhood. These scripts act as behavioral guides for each individual and establish a pattern of predicting how the person will react and what the outcome will be in certain situations. According to this model, a child who repeatedly behaves in an aggressive manner is constantly retrieving and replaying his or her learned aggressive script. These scripts become stable over time simply because each individual repeatedly rehearses them through fantasizing, observing or acting out (Steiner, 1973, Huesmann and Eron, 1989). Interventions proposed in this model target the children's beliefs about crime, violence, and aggression. Because children's thought processes are influenced by their parents' or guardians' behaviors, parents who believe that the world is hostile and threatening will model that behavior and reinforce their children's negative world views (Huesmann and Eron, 1989). The

interventions seek to test the belief against the reality. If children can experience some cognitive dissonance, then they may begin to re-invent the negative behaviors learned at home.

The social information-processing model theoretically combines cognitive tasks with predetermined biological capabilities. The social information-processing model is similar to social cognitive theory in that it examines the different cognitive tasks involved when a child encounters a social situation. This model asserts that children meet each new social situation with a set of biologically pre-determined capabilities (similar to scripts), along with a collection of memories of past experiences. The child receives an array of cues, and his or her responsive behavior is a function of processing those cues (Crick and Dodge, 1994). Crick and Dodge's research regarding the social information-processing mechanisms in children's social adjustment demonstrates that cognitive deficiencies in any one of the processing steps will result in aggressive behavior. For some children, aggression is the immediate response to all situations. Therefore, interventions aimed at increasing a child's repertoire of social responses decrease the chances that the child will react aggressively. For many, such re-learning may require lifelong process, so ingrained are the parent-driven lessons.

Dodge (1991) conducted earlier research on aggressive children. He found differences between children who use proactive aggression and those who use reactive aggression. The proactively aggressive children irritate others, using aggressive behavior to meet their desired goals. Ironically, the children who are proactively aggressive are not only considered to be bothersome and disruptive, but are also viewed by their peers as having a better sense of humor and exhibiting more leadership qualities than their reactive counterparts. Dodge also determined that children who react aggressively are themselves the targets of aggression or teasing. These

are the children who seemingly invite aggression from others and react in angry, volatile ways. Unlike the proactively aggressive children, those who are reactively aggressive are not accorded such positive attributes as humor and leadership (Dodge, 1991). Proper diagnosis of the offending child, involving an assessment of his or her aggression orientation, would suggest utilizing differing intervention strategies in responding.

In 1993, the American Psychological Association's Commission on Violence and Youth issued a report that concluded that there is no definitive research that determines how people become violent. Instead, the problem is complex and multi-faceted. The report found that many factors have been identified as contributing to a child's potential for violent behavior. They include biological factors, child rearing conditions, ineffective parenting, emotional and cognitive development, gender differences, sex role socialization, relationship with peers, cultural milieu, economic inequality, and media influences. However, the APA Commission determined that the strongest developmental predictor of a child's involvement in violence is a history of previous violence (Olweus, 1991; Smith, 1993).

Subculture of Violence

Wolfgang (in McPartland and McDill, 1977) was the first to refer to "a subculture of violence." He argued that since most Americans belong to the dominant culture, individuals who commit acts of violence are considered undesirable and are subsequently punished for their acts. Therefore, Wolfgang defined a subculture of violence as a set of values, attitudes, and beliefs congealed in pockets of populations characterized by aggression as a major mode of personal interaction and a device for solving problems (1977). In this subculture, generated primarily in the lower socioeconomic class, the use of violence is either passively tolerated or actively

encouraged in children from infancy through their passage into adulthood. Within this subculture, violence is positively identified with power, strength, and masculinity; therefore, it is greatly esteemed and admired. Male members of this violent subculture are far more likely to carry guns or other weapons as a matter of course than are males in the dominant nonviolent culture (Goode, 1984).

A number of demographers and sociologists observed massive changes in American society over the course of the last fifty years. They cited trends of women moving into the workforce as a potential problem for children. Coleman (cited in O'Neil, 1991) has advanced the theory that today's children are affected by the gradual loss of what he terms "social capital," or the norms, values, and human resources that parents and adults in the community must make available to children for their educational and social development. Coleman believes that social capital is eroding due to the growing number of families where the resources of the adults are not available to aid in the psychological health (social and educational development) of children (O'Neil, 1991).

Theories attempting to explain how or why children develop criminal and/or violent tendencies are numerous and diverse. Each has a unique and, simultaneously universal application. Despite their varied nature, it is important to note that none of the theorists or researchers believes that children are born criminals. Therefore, it remains for schools to utilize a sound knowledge of these theories in developing ways of mitigating adolescents' violent tendencies and promoting their re-entry into positive school environments.

Studies of School Crime

Public concern regarding violence in the American schools emerged in the late 1960's.

The House Subcommittee on General Education commissioned a national survey of schools,

releasing the results in 1970. In most cases, school policy issues, typically consisting of arbitrary

administrative decisions or stifling students' attempts at asserting their "rights" caused disruptions

and violent incidents in high schools. Because of these findings, public hearings were convened

in 1975 to receive input regarding concerns about violence in schools. Concurrent with this

initiative, the amendments to the 1974 Elementary and Secondary Education Act (ESEA)

mandated that a major study be conducted on violence in schools. Published in 1978, Violent

Schools-Safe Schools: The Safe School Study Report to Congress, was a study which went far

beyond the mere documentation of school violence. Discussed in the following section, this study

served as the basis for numerous post-hoc analyses of violence. In 1985, Gottfredson and

Gottfredson stated that "The Safe School Study's data base provides social scientists and policy

makers with the best source of information about school characteristics and school disruption

currently available." This landmark three-phase study was conducted between February 1976 and

January 1977. The initial segment consisted of a survey mailed to the principals of 4,014 public

elementary and secondary schools nationwide. Phase II involved on-site assessments of 642

public junior and senior high schools, including interviews of principals, teachers, and students.

Phase III was a qualitative study of ten schools chosen because their previously high levels of

crime and violence had been dramatically decreased in a short period of time (Califano, 1977).

This early research grew from a spring to a watershed of additional studies and recommendations,

a discussion of which follows.

Factors Contributing to School Violence

Schools as Institutions

Schools are significant assets to American culture, as well as powerful transmitters of American problems. As Albert Cohen concluded in his 1955 study, delinquent subcultures are a response to status deprivation among working-class boys, and schools play a major role in creating and aggravating this problem. There is strong empirical support for the contention that public schools, as institutions, promote juvenile crime by fostering association with deviant subcultures (Elliott and Voss 1974; Levine and Harighurst, 1992). The deviant teen subculture congregates at school where these students have little adult supervision outside class. This subculture promotes risk behaviors and violent tendencies on the part of its adolescent members. While other factors may stimulate crime and violence in school settings, the impact of a deviant subculture combined with a relative lack of adult supervision appears to be a common element within all schools experiencing violence.

Dan Olweus has studied bullying in Western Europe for the past thirty years, concurring with Cohen that the lack of adult supervision played a primary role in the high level of bullying experienced in some schools. Olweus noted in 1993 that

> "We found a clear negative association between the relative 'teacher density' during break time and amount of bully/victim problems. This result indicates that it is of great importance to have a sufficient number of adults present among the students during break times (probably on condition that the adults are willing and prepared to interfere with incipient bullying episodes) (p.26)".

This finding suggests that the attitudes of the teachers toward bully/victim problems and their behaviors in bullying situations are of major significance for the extent of bullying/victim problems in the school or class. Further, he noted that "the school is without doubt where most of the

bullying occurs." In addition to bullying, other school violence is perpetrated under the same conditions. Like Olweus, the National Institute for Education report entitled <u>Violent Schools-Safe Schools</u> (Califano, 1977) also suggested that the extent of the adolescent subculture phenomenon and the presence or lack of nurturing adult supervision are the primary variables in school crime and violence.

<u>Violence and School Size/Class Size</u>

The pioneering research conducted in Sweden generated findings which conflict with conventional wisdom regarding school size. Asserted Olweus,

> "Another popular view is that these problems increase roughly in proportion to the size of the school and the class. The problems are assumed to be more frequent in large schools and large classes. Data from ten schools in greater Stockholm that I presented in the beginning of the 1970s gave no support at all to these hypotheses. The data from Finland also failed to show any relationship between percentage of bullied or bullying students on one hand and school or class size on the other (Lagerspetz in Olweus, 1993). The results are clear-cut: there were no positive associations between these problems. Accordingly, one must look for other factors to find the origins of these problems" (Olweus, 1993).

Olweus, who conducted most of his research in the Scandinavian countries, generated conclusions which appear to be in stark contrast to Goldstein's (1984). For example, Goldstein found that the larger the school size, the more likely violence is to occur. He also found that the anonymity provided by a larger school was associated with more violence than were smaller schools, where the students were better known by the staff. Crowding was deemed a school violence correlate, since aggressive behavior occurs more frequently in more crowded school locations (stairways, hallways, cafeterias, lavatories, entrances and exits, and locker rooms) than it does in classrooms. Olweus determined that there was a correlation between school violence and the size of the community in which the school was located, with schools in large cities reporting

15%, in suburban areas 6%, and in rural areas 4%. These associations had been determined earlier by the National Institute for Education (NIE) data which concluded that "not only is size a variable for violence, but the 'crowding factor' is often mentioned as contributing to unsafe or more violent schools." Within the school, anonymity continues to be a factor in jeopardizing school safety levels in larger schools. "One frequently-heard comment was that control of students, once they were in the classroom and could be identified as individuals, was a relief from the chaos and disorder on the halls and stairs during change of classes" (Califano, 1977).

Some theorists have sought to determine whether or not the school population sets up negative competition among students, which then results in violent acts. Despite these speculations, the NIE results did not suggest that the behavior of aggressive boys was a consequence of competition, poor grades, or failure at school. Rather, both bullies and victims appeared to earn somewhat lower-than-average marks (Olweus 1978; Olweus, 1993). Indeed, the empirical research on grades has shown--as in the case of the National Safe School Study (Califano, 1977)--that schools where grades tended to be higher experienced less violence. Pepler and Slaby (1994) and Hawkins (1997) supported this claim. These studies examined grades across the school population and used them as one measurement of the environment. Simply put, environments characterized by higher grades also maintained higher levels of safety and experienced less violence.

Conversely, low grades were associated with serious problems. "There was general agreement among respondents in many of the schools that a small percentage of students--the figure 10% was frequently cited--form a hard core of disruptive students who are responsible for most of the vandalism and violence in schools. While this troublesome group did not seem to be

identifiable in terms of any specific racial, ethnic, or socioeconomic background, school staff commonly described them as students who were also having difficulty academically, were frequently in trouble in the community, and tended to come from troubled homes" (Califano, 1977). It might be said that overall grades frame at least a part of the profile which predict, the absence or the occurrence of school violence.

The Juvenile Justice System

School personnel continually assert that the juvenile justice system is not helpful in creating safe schools. Indeed, principals have overwhelmingly reported "no confidence" in the juvenile justice system. Forty-five percent of the principals surveyed by NIE said they received "little or no support" from the courts. Recidivism rates and the juvenile justice court backlogs have left school disciplinary officials cynical about the effectiveness of such judicial solutions. Joan Curico and Patricia First addressed these concerns in their book, Violence in the Schools (1993): "The court must recognize that in order to fulfill their duty to maintain an orderly learning environment, teachers and administrators must have broad supervisory and disciplinary powers." In effect, school violence must be addressed primarily in and by the schools themselves.

Teachers' Roles

The National Gallop Poll annually and historically ranks teachers high in public respect, and there is little doubt that teachers often serve as children's primary protectors. Curcio and First (1993) argued that "teachers stand in loco parentis to students and are entrusted with their care during the time that they are in school." Nonetheless, teachers appear unable or unwilling to stop violence in their schools. Olweus noted that roughly 40 percent of the bullied students in

the primary grades and almost 60 percent in secondary/junior high school reported that teachers tried to put a stop to it only "once in a while or almost never" (1993).

Peer Associations

Paetsch and Bertrand (1997) reported a strong correlation between the level of students' delinquent behavior and their involvement with delinquent peers. They asserted that "students who reported never or only occasionally engaging in activities with peers were more likely to report no delinquency themselves." Such findings further buttress social learning approaches by adding empirical support for the theory.

Some violent acts occur far outside the influence of a peer group and appear to be independent in nature. Specifically, Olweus believed that aggressive behavior is a fairly stable individual characteristic and this belief was confirmed in his review of a number of American and English studies. The research results justify concluding that being a bully or a victim is something that can last for a long time, often several years (1993). Hence, we see that while strong in influence, peer groups do not explain all the violent choices made by students.

Media Influence

Foundational to a discussion of media influence was the work pioneered by Bandura (1973), who spoke of aggression as being learned vicariously, by observing the behavior being modeled. Later, Huesmann and Eron (1989) developed their "script" metaphor to explain how aggressive behaviors are learned in childhood. Similarly, Olweus found that "many studies have shown that both children and adults may behave more aggressively after having observed someone else, a 'model', acting aggressively. The effect will be stronger if the observer has a positive evaluation of the model, perceiving the model as admirable, tough, fearless and strong."

Media images may cause a weakening of an individual's control or inhibitions against aggressive tendencies. Seeing a model getting rewarded for aggressive behavior tends to decrease the observer's own inhibitions against being aggressive (Albee, et al., 1992). Further, extensive international research indicates that children and teenagers who view violence in the media may become more aggressive and have less empathy with victims (Eron & Huesmann 1986; Olweus, 1993; Albee et al., 1992). There is little doubt that media play a strong role in the lives—both fantasy and real—of adolescents. Such impacts cannot be over looked in American public schools.

Family Influences

Bullies, nearly always male, according to Olweus (1993), are determined by four factors. First, there exists a basic emotional attitude of the parents, mainly that of the primary caretaker (usually the mother), toward a boy. It may be that particular attention must be devoted to expressing a positive emotional attitude during his earlier years. A negative basic attitude, characterized by a lack of warmth and involvement, clearly increases the risk that a boy will later become aggressive and hostile toward others. Second, if the caretaker is generally permissive and tolerant without setting clear limits to aggressive behavior, the child's level of aggression is likely to increase. Too little love and care and too much freedom in childhood are conditions Olweus found to contribute to the development of an aggressive reaction pattern. The third factor is the parents' use of power-assertive child-rearing methods such as physical punishment and violent emotional outbursts. While it is important to set clear limits and impose certain rules on a child's behavior, most agree that this should be done without the use of physical punishment.

Firearms Availability

Some would have us believe that firearms are an integral part of the American fabric. Certainly they are present and part of many homes, but their toll of death and injury is a unique tragedy. According to a report by the Centers for Disease Control's National Center for Health statistics, 11% of youth deaths caused by gun-related injury (Education Week, Nov. 8, 1989). In 1993, 39,595 firearm-related fatalities occurred in the United States. Of these, 18,571 were homicides, 18,940 were suicides, approximately 2000 were unintentional or of unknown intent (National Center for Health Statistics, 1997). In 1990, 86% of the 1,107 deaths caused by guns were among U.S. children (U.S. Dept. of Health and Human Services, 1990). Further, it has been reported that "American children are five times more likely to be killed than those in the rest of the industrialized world. The homicide rate is 2.57 out of every 100,000 children under age 15. That compares with an overall rate of .51 in the 25 other countries surveyed" (Meyer, 1997). "The growth in juvenile homicide victimization from the mid-1980s through 1994 was completely firearm-related. Juvenile homicides involving firearms nearly tripled from 1984 to 1994, while those not involving firearms remained constant" (Snyder, Sickmund & Poe, 1996). Additionally, between 1976 and 1986, homicide victimization rate among black youth varied between 7 and 10 murders per 100,000, then increased steadily to about 14/100,000 and in 1991 is 20/100,000. Concludes DiIulio (1994), "Homicide is far and away the leading cause of death among African-American teenagers."

Potential Solutions to School Crime and Violence

Schools are charged with providing a safe environment within which students are nurtured. The rising tide of crime and violence has caused schools to adopt a myriad of solutions

in the struggle to provide the necessary security for students and staff. The need for solutions is echoed by society, and amid ever-growing concerns for the welfare of students, schools nationwide are utilizing a multiple-response approach. The difficulty in evaluating the success of the purported solutions, then, lies in their complexity. Sorting "the wheat from the chaff" will be critical as professional educators demand program evaluation data to guide their decision-making.

Educators, schools and society often confront problems directly and tend to prescribe a specific solution to a specific problem. A whole litany of various programs have been created to correct specific problems: Chapter 1 reading and math are to correct reading and math deficiencies. Head Start is designed to give at-risk elementary school students the skills necessary for school success, and DARE is designed to prevent drug use by adolescents. While each of these individual programs meet its objectives with varying degrees of success, none of them has succeeded in providing safe schools and communities with socially competent, healthy young people.

The objective of schools, then, is to provide a safe environment for students and staff and to graduate socially competent, healthy young people. The evaluation of each approach or program should be founded upon this standard. Siggraph (in Allen, 1996) believes making crime and violence problems analogous to problems associated with widespread infection will lead to better preventative measures. Certain factors contribute to the risk of disease; other factors contribute to preventing disease. Similarly, some factors contribute to violence and crimes, while other factors prevent violence and crime and support students' successful social integration.

Student-Oriented Solutions

Olweus' work in Scandinavian countries, England, United States and Canada allows his findings to generalize internationally to these cultures. Olweus recommended that actions be taken on the individual student level. He writes that serious talks with bullies and victims by school personnel and serious talks with parents of involved students by school personnel can reduce bullying behavior. He suggests that teachers hold parent meetings to seek creative solutions to student conflict and that help from "neutral" students via group input can also diminish bullying. In the larger school environment, he suggests schools help and provide support for parents through teaching parenting; discussion groups for parents of bullies and victims are also helpful. Finally, a change of class or school for individual students is warranted if the other interventions prove unsuccessful.

Olweus' observations and recommendations respond to violence after the fact. Mulvey, Arthur and Reppucci (1993) reviewed a number of programs designed to prevent the need for these interventions. They found that Head Start programs produce short-lived improvements in children's IQ and academic performance and long-term improvements in school functioning, including less need for special education placement, less likelihood of grade retention, and greater likelihood of graduation. The Perry Preschool Project has produced longitudinal data that include evidence of reductions in delinquency, teen pregnancy, and crime. "The study compared 3- and 4-year olds from predominantly black neighborhood in Ypsilanti, Michigan, with a matched, randomly selected no-preschool control group. The pre-school program actively involved the children in planning classroom activities, was held for 2.5 hours each weekday morning, and lasted for 30 weeks per year. Teachers also made home visits (p. 139)." Children in the

preschool program, in contrast to the control group, were less likely to have been arrested at age

19, less likely to have had five or more arrests, less likely to have had special education, less likely

to have dropped out of high school or to have been on welfare. "Participants had lower rates of

teenage pregnancy and adult arrests, and higher rates of adult employment and post secondary

enrollment. Surprisingly, the program appeared to have greater impact on adult arrests than on

juvenile arrests (p.139)."

Teacher-Oriented Solutions

Recognizing the close proximity of teachers to their students, the NIE Safe School Study

(1978) and Olweus have concluded their work with recommendations for teachers. These

recommendations include creating class rules against violence (clarification, praise, and sanctions),

holding regular class meetings to check group impressions and role playing activities to delve into

students' concerns and reinforce positive behaviors. Both recommend cooperative learning

activities should be utilized to foster connections between students and positive class activities

should be held with other teachers. Finally, class meetings between teachers, parents and children

should be held (Olweus, 1993) on an on-going basis.

Additionally, David and Roger Johnson (1990) have developed cooperative learning

models as a means for teachers to positively change behavior and promote interactions between

children. Their most recent work, Conflict Resolution (1997), has recommended teaching

students conflict resolution skills as part of their classroom requirements. In-class programs such

as these could serve as powerful reinforcers of anti-violence school programming.

The VSSS (Califano, 1977) research states unequivocally that a majority of the violent

incidents in schools are committed in common areas such as the hallways, stairwells, bathrooms

and locker rooms. Most teachers feel little responsibility or ability to intervene in such areas and are very often reluctant to supervise them. Given this prevailing attitude, the most viable teacher-oriented solution is using the cooperative learning model in their classrooms. Hawkins (1997) showed that students who have larger repertoires of positive behaviors resort to violence less frequently than do students with knowledge of fewer appropriate responses. Cooperative learning is powerful here in that it particularly emphasizes mutual interdependence.

Hawkins and Catalano (1990) have viewed certain characteristics of school environments as contributing to or discouraging drug use, crime, and victimization. Academic achievement and development of a bond of commitment to education and attachment to school have been shown to reduce risk of involvement in drug use and delinquent behavior. For this reason, the more nurturing the classroom and teacher, the greater the protective factors. The greater the student achievement within the academic setting, the greater the protective factor against delinquency and drug use. Jensen has written about the neurological changes that occur in nurturing and threatening environments, urging teachers to "work on the following three variable: threats from outside of class, threats from other students, and threats from yourself." He has asserted that "threats activate defense mechanisms and behaviors that are great for survival but lousy for learning" (1998, p. 57). In the larger school environment, schools that provide smoking areas on campus have significantly more students smoking (Crow, 1984). School policies that discourage smoking, combined with curricular components that warn against the dangers of smoking, further increase the protective factors for all students. Hawkins (1990) has also cited evidence that participatory governance on student behavior suggests policy-setting processes should include student representation.

Peer influences have also been shown to be a major predictor of initiation of tobacco, alcohol, and marijuana use. Schools need to answer the question of how to harness peer influences in developing protective factors. Hawkins (1990) and others have spoken out against tracking. He has said that "tracking and ability grouping in secondary school promotes the development of certain subgroups of students who articulate counter-norms that insulate them from the prosocial influence of others (p. 179)." Johnson (1990) and Hawkins (1990) have both viewed cooperative learning as supporting prosocial development. Klepp, Halper and Perry (1986) have also suggested using peer leaders as role models. They found that using student leaders with teachers was more effective than exclusive reliance on teachers in preventing and delaying the onset of smoking, alcohol, and marijuana use.

Organizational/Administrative Solutions

Principals reporting in VSSS (Califano, 1977) have recommended training and organizational change as a means of reducing problems. They also focused upon increased security, school discipline, and improving school climate as possible solutions. The VSSS research would suggest that many of the solutions to school violence are administrative in nature. Specifically, conclusions drawn from the Safe Schools Study state that misbehavior can be reduced by reducing the size of schools (thereby reducing their impersonal nature); making student discipline systematic and fair, as viewed by the student; and eliminating arbitrary school rules. The report also suggested buttressing the school's reward structure and recognition program, increasing the relevance of curriculum, decreasing students' sense of powerlessness and alienation by giving them voice, and providing small classes where teachers interact with a

manageable number of students each day. Finally,, the study suggested creating systems for increasing student achievement and improving grades.

The principal's style of leadership and the structure of order imposed upon schools seemed to differentiate safe schools from those having problems. That is, the role of the principal appears to be a critical factor in itself. Visibility and availability to students and staff characterize the principal in those schools which seem to have made a dramatic turnaround from a violent period. Conversely, schools with high levels of violence had principals who were described as "unavailable and ineffective" (VSSS, 1977). While the principal's personal leadership style is important, it was also found that maintaining order in a school was equally important. In every successful school, the structure of order was described as "firm, fair, and most of all consistent" (VSSS, 1977).

The principal's leadership extends into other areas as well. For example, it requires strict oversight of security personnel. As noted in the report, "The duties of daytime security personnel are typically to maintain safety and order in schools. It means, further that their job requires higher levels of skill than guarding and involves the ability to work effectively in complex interpersonal situations. It means, finally, that the recruitment and training of professional daytime security personnel are matters of considerable importance. Personnel quickly recruited or inadequately trained may cause more problems than they solve" (VSSS, 1977).

The VSSS report stressed consistency and fairness in disciplining students. However, this approach requires an explicit code of behavior for the school. The National School Safety Center lists the following as the number–one item under prevention strategies: "written school policies should be distributed to students, parents and community members so it is clear that any assault or

violent action (as defined by state penal codes or local ordinances) is a crime and will result in arrest, as well as vigorous school efforts to help prosecute the offender" (NSSC Resource Paper, 1993).

Parent-Oriented Solutions

Of particular value in the multitude of partial solutions to violence attempted in schools has been an effort to educate parents. Many of these attempts at the secondary level have been directed merely toward helping parents to identify warning signs which may be indicative of adolescents' high–risk behaviors. Nonetheless, some experts in the field have addressed the factors in parenting patterns which contribute to children's development of violent tendencies. Others identify guidelines for parents desirous of promoting positive home environments. It should be noted that parent–oriented solutions are outside the span of high schools' control and are therefore not integral to this investigation.

Olweus (1993) outlined the parenting factors that support the development of bullies; chaotic parenting, abusive parent–child relationships, and lack of nurturing all make their contribution. Bandura (1973) noted that aggression can be learned vicariously by observing the behavior being modeled within the family and later (1983) expanded the framework to include learning criminal and violent behaviors. Since the family is the primary socializing environment within which children learn, it is necessary that parents provide the protective factors for proper development and eliminate as many risk factors as possible. Richard Catalano (1991) sees parents as change agents for providing protective factors for their children. He recommends parent education programs that teach families techniques to strengthen bonding and communicate norms against violence, substance abuse and crime. He believes both high- and low-risk families should

interact in a similar manner, schools should support high- and low-achieving students working together. He recommends that the parenting program be culturally sensitive and relevant across educational and social class. All programs should work to strengthen family ties: "the programs should bring parents and children together around the program material. [This will increase] the likelihood that the program will increase family bonding (p. 13)." He also acknowledges that this is a tremendous challenge that "demands nothing less than changing the social norms about parent education (p. 13)."

If prevention failed, Baker (1980) and Hawkins (1985) suggested an intervention program for offending students built around a limited set of key principles derived chiefly from research on the development and modification of the implicated problem behaviors, in particular aggressive behavior. They considered it important to attempt to create a school environment characterized by warmth, positive interest, and involvement from adults, as well as firm limits on unacceptable behavior.

The National Association of Secondary School Principals developed The Hidden Curriculum of Success (1988) for parents. It lists seven principles to reinforce effective parenting strategies which combat violent behavior. According to the NASSP:

1) Parents must help their children develop internal security and personal self-acceptance;

2) Children must learn a sense of personal accountability;

3) Parents must help children learn healthy achievement motivation;

4) Children must develop a positive relationship to the work world;

5) Parents must teach children that good manners and social sensitivity are critical;

6) Children must be taught sound money management skills beginning early in life; and

7) Parents must foster a well-developed ability to relax and play on the part of their children.

Households where these principles are understood and implemented are likely to contribute to

students overall development.

Security Solutions

Generally, teachers and students recommend an improvement in "discipline" as a way of

improving the security and safety of a school, while principals place more importance upon

"parent involvement and community relations" and "improving school climate" as ways to bring

about positive change (VSSS, 1977). "Throughout all of our schools," it asserts, "there was a

strong preference for 'more people than things' to increase the security of schools."

Security of students within our schools is just one part of the security issue. There exists

an entire industry devoted to school safety. Security, a publication devoted to this industry,

conducted a nationwide telephone survey of a random sample of people who provide expertise via

consulting in school security. The objectives of the survey were to determine the security

practices of primary and secondary schools, as well as to better understand and use various

security systems and products. The findings revealed that schools prioritize security issues in

terms of property, not violence toward students. Computer security was the chief area of concern

among 44.4% of the respondents, and vandalism ranked as the primary concern for 40.4%

The NIE report (1979) and Goldstein (1984) found large schools to be more dangerous

than small schools, partly because of the anonymity provided by larger settings. In identification

measures, over half (55%) of the respondents said their staff members have ID badges and/or

access cards, with instant photo ID cards used most often (49%). Almost three-quarters (74%) of

the schools surveyed used an in-house central security console to monitor alarms, while 47% of

the respondents use CCTV (closed-circuit television) surveillance, and of these, 76.6% said their monitoring was used most often to cover exterior doors. The NIE reported that schools prefer people over equipment: 68% of the respondents said they have security officers in-house, 75.8% are unarmed. Almost all (98%) of the respondents believed that their staff members, students, and parents find security to be "excellent" or "good" in their schools.

As Hawkins (1997) will explain later, these measures may provide good security in the immediate environment, but may not in fact contribute to the bonding necessary for long-term societal success.

State and Federal Programs as Solutions

The final model of violence prevention is drawn from public health, making crime and violence problems analogous to problems associated with widespread infection. Certain factors contribute to the risk of disease; other factors contribute to preventing disease. Similarly, some factors contribute to violence and crimes, while other factors prevent violence and crime. Analogous to the health model, programs have been developed which educate students about the risks of violence, guns, drugs and gangs. These programs attempt to introduce or reinforce more moderate conflict resolution skills and give children an opportunity to safely discuss the stories of violence in their lives. However, as yet no significant positive outcome has been demonstrated from these programs (Siggraph in Allen, 1996).

Health Risk Behaviors

The United States Department of Education has established a political agenda linking school safety and health, asserting that "by the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning" (Goals 2000,

1991). Further, the U.S. Health Service demanded that educators "increase the high school completion rate to at least 90 percent, thereby reducing risks for multiple problem behaviors and poor mental and physical health" (U.S. Public Health Service, 1990).

The social development model seeks to explain why both healthy and health risk behaviors emerge over the course of adolescent development (Hawkins, 1997). Catalano and Hawkins (1996) have established a link between school success and health, promoted through the same theoretical model. Given that behavior is the product of an individual's interaction with his or her environment, schools are a major social development institution in American society (Hawkins and Weis, 1985). Children who develop a commitment to succeed in school feel a sense of attachment to school and to their teachers and therefore are more successful academically than other children (Hirschi et al., 1996). Ultimately, then, commitment and attachment are the principal elements of a social bond to school.

CHAPTER THREE

METHODS AND PROCEDURES

Research Design

This is a descriptive correlational study wherein students' behaviors reported on the Montana Youth Risk Behavior Survey will constitute the dependent variable, and school profiles of prevention, intervention and policy strategies as reported by principals will be the independent variables. The Youth Risk Behavior Survey data was made available by the Montana Office of Public Instruction, which strictly guards the confidentiality of the MYRBS. The Class A and AA high school principals completed the Montana Assessment of School Violence.

Hypotheses

The following hypotheses will be tested via the data:

1) H_1: There will be a significant relationship between the pro-social programming within high schools and the risk factors exhibited by Montana youth.

   H_0: There will be no significant relationship existing between pro-social programming and the risk factors exhibited by Montana youth.

2) H_1: There will be a significant relationship between violence reported on the Youth Risk Behavior Survey for students who attend schools with violence prevention and intervention programming in comparison to students that attend schools without this programming. H_0: There will be no significant relationship between violence reported on the Youth Risk Behavior Survey for students who attend schools with violence prevention

and intervention programming in comparison to students that attend schools without this

programming.

3) H_1:   There will be a significant relationship between the responses on the Youth Risk

Behavior Survey for students in schools that practice pro-social programming compared

to responses by students from school which do not practice such programming.

H_0: There will be no significant relationship between the responses on the Youth Risk

Behavior Survey for students in schools that practice pro-social programming compared

to responses by students from school which do not practice such programming.

<u>Sample</u>

<u>Students</u>

The Montana Office of Public Instruction has administered the <u>Montana Youth Risk</u>

<u>Behavior Survey</u> (MYRBS) in 1991, 1995 and again 1997 to a sample population described as

follows:

> All public and private schools in Montana with students in grades 9
> through 12 were eligible to be selected for inclusion in the sample.
> Fifty-four schools were randomly selected with probability
> proportional to enrollment. Thirty-eight schools elected to
> participate in the random sample and 89 percent of the students in
> these schools volunteered to participate in the survey. A Total of
> 2,535 students participated in the random 1995 Montana Youth
> Risk Behavior Survey. The weighted results presented in this
> report are based on the behavior and opinion of the participants in
> the random sample.

> In addition to the random survey, 57 high schools and 91 middle
> schools (grades 7 and 8) in Montana volunteered to participate in
> the statewide survey in order to obtain survey results related to
> their individual schools. A total of 10,589 students participated in

the volunteer YRBS survey. Statewide participation in both the random and volunteer surveys involved 13,124 students.

The estimated error rate, using a normal approximation, is plus-or-minus 3 percent. In addition, respondents in self-reported surveys may have a tendency to under-report behaviors that are socially undesirable, unhealthy, or illegal (alcohol consumption, drug use, seat belt non-usage, etc.) And over-report behaviors which are socially desirable (amount of exercise, etc.) (MYRBS, p. 4).

Principals

The Montana Assessment of School Violence was administered to all Class A and AA

principals of the schools which participated in the Montana Youth Risk Behavior Survey and was

coded by the Office of Public Instruction to match their schools, although anonymity was

preserved as a condition of this research (see Appendix C).

The sample consisted of 37 schools that represent approximately 74% of the students

enrolled in Montana high school. Thirty-six principals returned surveys, for a return rate of 97%;

only 30 of the 36 schools participated in the YRBS. The 2676 students from these 30 schools are

the sample population. The students ranged in age from 12 to 21 years. Approximately 48% of

the sample population were male and 52% is female. Ninth-graders account for the majority of

the sample (35%), ranging to a low of 19% in grade 12. White students comprise 85% of the

sample, 7% American Indian, 2% Hispanic, 1% Asian, .5% Black, and 4% self-classified as

"other."

<div align="center">Procedures</div>

All principal participants were sent surveys concurrent with the MYRBS assessments

conducted by the Office of Public Instruction. A letter of instructions accompanied the survey to

stress the importance of the investigation. The researcher attended the principals' end of year

meetings to reiterate the need for completion of the surveys.

This research viewed each school-community as a population. Each population was analyzed for each set of variables. If a population exhibited a significantly higher or lower level of crime or violence, it was be studied to determine why such differences existed. Comparisons between and within groups were generated.

Instrumentation

The Montana OPI receives the Risk Survey as part of the Title IV grant. It is a national survey prepared and administered annually by the U.S. Center for Disease Control, Division of Adolescent and School Health, Surveillance Research Section.

Development of Youth Risk Behavior Survey

For the purposes of this study, questions 10 through 63 from the Youth Risk Behavior Survey served as the basis for the investigation. The questions and possible responses are listed in appendix A.

The YRBS was designed to focus the nation on and systematically track the prevalence of unprotected sexual intercourse, cigarette smoking, weapon carrying, and other behaviors that have the greatest impact on the health status of adolescents and the adults they will become. Many adolescent risk behaviors are interrelated; a particular behavior may be both a cause and an effect of adolescent developmental turbulence. To be effective, health promotion programs for youth should be comprehensive and formative. All programs—school-based, community-based, and mass media—rest on assumptions that must be tested with the population for whom they are developed. Young people can be a remarkable resource for their own wellbeing (McGinnis, 1993).

The Center for Disease Control began designing the surveillance system in 1988 by reviewing the leading cause of mortality and morbidity among youth and adults. The review showed nearly all contributing behaviors could be categorized within six areas: behaviors that result in unintentional and intentional injuries; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and STD, including HIV infection; dietary behaviors that result in disease; and physical inactivity. In August 1989, the CDC convened a 2-day workshop to determine and measure priority behaviors and developing questions to measure them. A panel was set up for each categorical area with scientific experts from multi-agencies. The design was to have students complete the questionnaire at school, covering all six categories of behavior, within a 45-minute class period. Each panel was asked to identify only the highest priority behaviors from its area and to suggest a limited number of questions to measure the prevalence of those behaviors (Kolbe, Kann & Collins, 1993).

Each panel prepared a paper documenting the reasons for selecting each priority behavior. The paper identified the most important health outcomes that result from risk behaviors in each area. How these questions related to the national health objectives presented in Healthy People 2000. It ranked the importance of health behaviors during youth that should reduce the most important health risks and those questions needed to measure priority behavior most effectively (Kolbe, Kann & Collins, 1993).

The first version of the questionnaire was completed in October 1989 and was reviewed at a national conference by representatives of each state's department of education and 16 local departments of education. A second version was developed in November 1989 and field-tested the following spring. That version was also sent to the Questionnaire Design Research

Laboratory at the National Center for Health Statistics for additional laboratory and field testing with high school students. After additional adjustment of wording, the core questionnaire was completed in October 1990. The core questionnaire is self-administered, contains 75 multiple-choice questions, and has a 7th-grade reading level. Skip patterns are not included in the questionnaire to help ensure students do not lose their place on the answer sheet (Kolbe, Kann & Collins, 1993).

Reliability and Validity Study Summary

Brener, Collins, Kann, Warren & Williams (1995) present the results from a test-retest reliability study of the YRBS, conducted by administering the YRBS questionnaire to 1,679 students in grades 7 through 12 on two occasions 14 days apart in five states. The authors computed a kappa statistic for each of the 53 self-report items and compared group prevalence estimates across the two testing occasions. Kappas ranged from 14.5% to 91.1%, with 71.7% of the items were rated as having "substantial or higher reliability (kappa = 61-100%)." No significant differences were found between the prevalence estimates at time 1 and time 2. Responses of seventh grade students were less consistent than those of students in higher grades, indicating that the YRBS is best suited for students in grade 8 and above. Except for a few suspect items, students appeared to report personal health risk behaviors reliably over time.

Reliability is a necessary characteristic of validity but does not ensure validity. Researchers in the past have included fictitious drug use (Needle, 1983) or random response technique (Warner, 1965) to determine whether self-report measures are externally valid. Brener (1995) concluded that "Most have found that measures of illicit drug use, alcohol use, or tobacco use are fairly accurate. Meanwhile, this report adds to the growing literature on the reliability of

self-reported health behavior data and provides evidence that a widely used adolescent survey has adequate reliability"(p. 580).

Principal's Survey

The Montana Assessment of School Violence is a replication of the New Jersey Assessment Survey of School Violence developed in 1993, modified slightly to fit the structure of Montana schools. The principal's survey requested responses that assess each of the prevention, intervention and policy strategies used in the school for promoting safety. The survey also requested an assessment of some community factors that either support or discourage constructive socialization, the risk or protective factors present within a community. It also identifies a school's use of other factors, identified by research, as significant for teaching socialization as well as an assessment of the crime and violence within the school environment.

OPI required that principals sign a release concerning the reporting of the findings. Permission to use the principal's survey was received from Tom Collins, Evaluation Specialist, Division of Academic Programs and Standards, in Trenton, NJ. A copy of the instrument is provided in Appendix B.

Anticipated Treatment of the Data

Each school represents a population. The student's responses on the YRBS served as the dependent variable of school safety and the school's programs were the independent variables. The assessment of school safety was determined using YRBS data. The principal's survey determined the use of prevention and intervention programming as well as policy strategies used within the school. The school's programming was linked with each of that school's student responses.

Hypothesis 1: There will be a significant relationship between the pro-social programming within high schools and the risk factors exhibited by Montana youth.

The questions on the YRBS, used in this study, provide a method of scoring both an individual student's risk behavior and a school's safety level, computed by summing the scores of all the students tested in one school. This level, the School Safety Score, is the mean of the relevant student responses on questions 10 through 63. Additionally, the YRBS questions used in this study are separated into seven behavior risk categories, which have been labeled Alcohol Driving, Violence, Suicide, Tobacco Use, Drug Use, and Sexual Behavior. By determining the mean of the student scores for the questions in each section, a school score relative to each of these sections was obtained.

The principals completed two questions in the first portion of the study. The first question asked them to identify, from a list, all programs or policies their schools used in prevention or control of violence and risk behaviors. The second question asked them to assess which of these programs or policies worked best in their schools. By using step-wise regression, the relationship between the programming variables and the School Safety Score was determined.

Step-wise regression computed the relationship and strength of the program variables with respect to the school's safety score. The School Safety Score was the dependent variable and the school programming as the independent variables. This regression equation enables predicting the School Safety Score from the programming variables.

Hypothesis 2: There is a significant relationship between violence reported on the Youth Risk Behavior Survey for students who attend schools with violence prevention and intervention programming in comparison to students who attend schools without this programming.

The magnitude of the prevention, intervention and policy programming in each of the 30 schools in the sample was identified through the following process: all possible cross-tabulations were conducted, using the programming variables with behavior variables of the YRBS. There are 46 program variables and 56 behavior questions on the YRBS related to this study, yielding 2,576 possible interactions. The individual programs received a score based upon the number of significant interactions on cross-tabulation between the program variables and the risk-behavior questions on the YRBS. Table 3, Chapter 4 illustrates the interaction between the program variables and YRBS questions on the violence section. The Program Power Score is the sum of the number of statistically significant interactions ($P< .05$) between the program variable and the YRBS questions. The School Programming Power Score is the sum of the values for each of the programs operating at a school. The School Violence Score is the average of the school's student responses on that portion of the YRBS. Regression was computed using the School Programming Power Score as the independent variable and the School Violence Score as the dependent variable.

Hypothesis 3: There is a significant relationship between the responses on the Youth Risk

Behavior Survey for students in schools that practice pro-social programming compared to

responses by students from schools which do not practice such programming.

The prevention and intervention programming present at the 30 separate schools in the

sample was identified previously from corresponding subsets of the principal's questionnaire. To

test the third hypothesis, regression analysis was used to determine the relationship between the

School Programming Power Score and the seven behavioral risk categories. The categories are

alcohol driving, suicide, tobacco use, drug use and sex.

CHAPTER FOUR

RESULTS

This study investigated the relationship between pro-social programming and intervention strategies for at-risk behavior offered in those Class A and AA high schools in Montana participating in the Montana Youth Risk Behavior Survey (YRBS). As a descriptive correlational study, student's behaviors, as reported on the Montana Youth Risk Behavior Survey were the dependent variables and the programming and intervention strategies named by the schools' principals were the independent variables.

The three hypotheses tested in the study determined: 1) the relationship between the programming and intervention strategies and the behaviors exhibited by the students in their respective schools' 2) the relationship between violence reported by the students on the YRBS and the programming and intervention strategies offered by the school which these students attend; and 3) whether or not students in schools which practice pro-social programming and intervention strategies experienced less crime, violence and bullying than students from schools without such programming.

Demographic Characteristics

Description of the Sample

The sample consists of 37 schools that represent approximately 74% of the students enrolled in Montana high schools. Thirty-six principals returned surveys, for a return rate of 97%. The student sample consists of 2676 students from schools that range is size from three hundred to almost two thousand. The students range in age from 12 to 21 years. Approximately 48 percent of the sample population is male and 52 percent is female. Ninth-graders account for the majority of the sample (35%), ranging to a low of 19% in grade 12.

White students comprise 85% of the sample, 7% American Indian, 2 % Hispanic, 1% Asian, .5 % Black, and 4 % self-classified as "other."

Hypothesis #1

H_1: There will be a significant relationship between the pro-social programming within high schools and the risk factors exhibited by Montana youth.

H_0: There will be no significant relationship existing between pro-social programming and the risk factors exhibited by Montana youth.

The 66 questions on the YRBS used in this study provide a method of scoring both an individual student's risk behavior and a school's safety level, computed by summing the scores of all the students tested in one site. This level, the School Safety Score, is the mean of the relevant student responses on questions 10 through 63. Additionally, the YRBS questions used in this study are separated into seven behavior risk categories, which have been labeled Alcohol Driving, Violence, Suicide, Tobacco Use, Drug Use, and Sexual Behavior. By determining the mean of the student scores for the questions in each section, a school score relative to each of these sections was obtained (see Table 1).

TABLE 1

CATEGORICAL SCHOOL AVERAGES

ENROLLMT	alcoh drive	viol score	suicide score	tobacco score	drug score	sex score	school safety s
565	3.53	13.91	4.61	18.97	29.98	16.31	2.01
425	4.28	15.39	4.79	22.29	35.21	22.36	2.39
1773	2.88	13.84	4.64	17.04	27.26	16.05	1.88
552	4.01	15.74	4.74	21.26	32.69	18.71	2.23
576	3.31	15.43	4.76	20.29	31.22	18.62	2.12
400	2.99	14.35	4.66	17.43	29.42	16.60	1.94
664	3.77	14.65	4.51	19.83	32.71	18.29	2.13
1697	3.04	14.53	4.53	18.55	29.86	16.74	1.97
1700	3.05	14.97	4.63	16.74	29.82	17.07	1.96
625	2.99	15.22	4.78	17.23	27.29	15.02	1.90
490	3.67	15.27	4.67	24.11	35.30	24.21	2.40
430	4.40	16.08	5.07	22.43	36.07	21.85	2.43
1550	3.05	13.53	4.70	17.70	26.86	16.58	1.92
540	3.39	14.33	4.47	18.51	32.13	17.10	2.02
630	2.95	13.08	4.55	18.59	28.56	18.38	1.97
555	3.61	15.60	4.81	20.89	33.96	18.05	2.18
411	3.11	13.88	4.86	18.15	29.32	16.68	1.98
370	3.41	14.40	4.64	19.04	30.90	18.24	2.07
490	3.39	14.95	4.63	19.85	33.03	18.45	2.11
1689	3.31	15.82	4.97	18.99	27.45	17.59	2.06
1983	3.45	14.84	4.81	20.91	32.88	18.89	2.16
1850	3.44	14.04	4.73	17.93	30.97	19.14	2.07
640	3.32	15.79	5.18	21.17	31.54	17.89	2.16
1244	3.26	15.22	4.47	17.24	30.73	17.61	2.00
1220	3.57	14.99	4.85	20.10	33.69	17.13	2.13
783	3.73	15.12	4.96	18.79	30.83	17.20	2.11
1840	2.99	13.88	4.68	16.01	28.33	15.25	1.86
1362	3.32	14.34	4.83	17.99	27.18	16.91	1.98
1350	3.05	14.16	4.57	17.72	28.57	15.19	1.90
1430	3.80	13.94	4.63	19.93	31.05	17.09	2.09

Average of category	994	3.40 ave	14.71 ave	4.72 ave	19.19 ave	30.83 ave	17.84 ave	2.07 ave

Category Min.		2.00	10.00	4	9	17	9	
Max.		10.00	65.00	12.00	51	107	40	

alcohol drive score is school average of Q10N and Q11N
viol score is the school average. of Q12N:20N
suicide score is the school average of Q22:25N
tobacco score is the school average of Q26N:32N
drug score is the school average of Q36N:53N
sex score is the school average of Q54:63N
school safety score is the school total of the individual category scores

The principals completed two questions in the first portion of the study. The first question asked them to identify, from a list, all programs or policies their schools used in prevention or control of violence. The second question asked them to assess which of these programs or policies worked best in their schools. By using step-wise regression, the relationship between the programming variables and the School Safety Score was determined. The school programming variables were:

Preventative Programming

      Conflict resolution
      Anger management
      Mentoring
      Law-related education
      Problem solving/decision making skills
      Police officer visits to school
      Character and values education
      Prejudice education
      Theater/art
      Other (specify)

Intervention Programming

      Peer mediation
      Other dispute mediation
      In-school suspension
      Alternative education
      Human relations group
      Parent/community involvement
      Social service agencies
      Pupil personnel services
      Other (specify)

Policy Strategies

      Code of conduct
      Behavior expectations
      Memoranda of agreement with law enforcement
      Other (police interventions)

Table 2 shows the step-wise regression using the twenty-three programs as the independent variables and the School Safety Score as the dependent variable.

TABLE 2

STEP-WISE REGRESSION

Variable(s) Entered on Step Number
1. MENTORING

Multiple R .07059
R Square .00498

Variable(s) Entered on Step Number
2. CONFLICT RESOLUTION

Multiple R .10205
R Square .01041

Variable(s) Entered on Step Number
3. SOCIAL SERVICES

Multiple R .12471
R Square .01555

Variable(s) Entered on Step Number
4. OTHER PREVENTION

Multiple R .13478
R Square .01817

Variable(s) Entered on Step Number
5. PUPIL PERSONAL SERVICES

Multiple R .14341
R Square .02057

Variable(s) Entered on Step Number
6. OTHER POLICE (resource officers)

Multiple R .14902
R Square .02221

Variable(s) Entered on Step Number
7. VALUES EDUCATION

Multiple R .15505
R Square .02404

Variable(s) Entered on Step Number
  8. DISPUTE MEDIATION
Multiple R   .16099
R Square   .02592

Analysis of Variance
            DF   Sum of Squares   Mean Square
Regression   8   30.72636   3.84080
Residual   2314   1154.75043   .49903

F =   7.69656   Signif F = .0000
---------------- Variables in the Equation Ranked by Coefficient T-------------

Independent Variable	T	Sig T
CONFLICT RESOLUTION	-3.679	.0002
OTHER PREVENT	-3.655	.0003
MENTORING	-3.129	.0018
OTHER POLICE	-2.744	.0061
VALUES EDUC	-2.469	.0136
PUPIL PERSONNEL SERV	-2.246	.0248
DISPUTE MEDIATION	2.113	.0347
SOCIAL SERV	2.947	.0032
Y intercept	58.827	.0000

Total R^2 accounted for by these variables equals 14.185. This is the proportion of School

Safety which is dependent upon the school programming variables. The remaining 86% can be

attributed to other, unknown, variables.

Table 2 shows that for all A and AA schools in Montana, the school's safety (as

measured by the YRBS) is significantly correlated (sig T < .05) with conflict resolution,

mentoring , values education, dispute mediation, social services, pupil personnel services, and

other police involvement in the form of resource officers. The correlation with other

independent (program) variables was not statistically significant.

T is the coefficient of the variable in the regression equation and this is a measure of the

strength of the variable in the equation. The sign (+ or -) of the coefficient determines the

direction of that independent (program) variables with respect to the dependent variable, School Safety Score. In this equation, a negative coefficient means an increase in School Safety Score and a positive coefficient means a decrease in the School Safety Score. Again in this example, improved school safety is associated with increased programming of: conflict resolution, other preventative measures, mentoring, other police (resource officers), values education, and pupil personnel services. Dispute mediation and social services have a positive coefficient and therefore are associated with decreasing School Safety Score. Schools that do dispute mediation and involve social services actually have a decreased School Safety Score.

<div align="center">

Hypothesis #2

</div>

H_2: There is a significant relationship between violence reported on the Youth Risk Behavior Survey for students who attend schools with violence prevention and intervention programming in comparison to students who attend schools without this programming.

H_0: There is no significant relationship between violence reported on the Youth Risk Behavior Survey for students who attend schools with violence prevention and intervention programming in comparison to students that attend schools without this programming.

The magnitude of the violence prevention programming in each of the 30 schools in the sample was identified through the following process: all possible cross-tabulations were conducted, using the programming variables with behavior variables of the YRBS. There are 46 program variables and 56 behavior questions on the YRBS related to this study, yielding 2,576 possible interactions. The individual programs received a score based upon the number of

significant interactions on cross-tabulation between the program variables and the risk-behavior

questions on the YRBS. Table 3 illustrates the interaction between the program variables and

YRBS questions on the violence section. The numbers in the cells represent the statistical

significance of the interaction.

TABLE 3

INTERACTION BETWEEN PROGRAMMING VARIABLES AND YRBS VIOLENCE

QUESTIONS

	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19
Conflict Resolution	0.05947	0.00848		0.02139				
Anger Management				0.03885				
Mentoring			0.03472		0.02173			
Law Education	0.01856							0.03101
Problem Solving Skills								
Police Visitation								
Values Ed.								
Prejudice Ed.								0.00033
Theater and Art Ed.								
Other preventative prog.								
Peer Mediation								
Dispute/Otr Mediation								
Inschool Suspension Ed.		0.00048						
Alternative Education		0.04713						
Human Relations Group	0.00357	0.01175						
Parent Involvement								
Community Involvement								
Social Services								
Pupil Personnel Serv.								
Other Interventions								
Code of Conduct								
Behavior Expectations		0.0304		0.01788				
Memo of Agreement (w/law enforcement)								0.04284
Other Police envolvement			0.0022					

Table 3 lists the programming variables (independent variables) on the left side of the

chart; The YRBS questions are listed at the top. The numbers in the cells are the statistical

significance of these interactions. A violence programming power score for conflict resolution

would be 3. Three because there are three statistically significant interaction between conflict

resolution and the violence section questions. Anger management would record a score of 1.

Programming Power Scores were computed for all independent variables across each

section. Further a School Programming Power Score was computed, using the sum of the scores

of the school's individual program scores. Table 4 indicates these results.

TABLE 4

PROGRAM VARIABLES AND RELATIVE POWER

Pro-social programming	Number of significant intersections between programming and questions of the YRBS.							
	Q10-11 aldrv	Q12-20 violence	Q22-25 suicide	Q26-35 tobacco	Q36-53 drug	Q54-63 sex	Total	Relative Power
Conflict Resolution	1	3	1	1	8	4	18	35
Problem Solving Skills	0	0	1	4	7	4	16	31
Mentoring	0	2	0	2	3	2	9	17
Values Education	0	0	0	5	3	1	9	17
Police Visitations	0	0	0	1	0	7	8	15
Anger Management	1	1	0	2	3	0	7	13
Law Education	0	3	0	2	0	0	5	10
Other preventative prog.	0	0	0	2	2	0	4	8
Prejudice Ed.	0	1	1	0	0	1	3	6
Theater and Art Ed.	0	0	1	0	0	0	1	2
Peer Mediation	1	0	1	2	9	7	20	38
Inschool Suspension Ed.	0	1	0	2	4	5	12	23
Human Relations Group	0	2	1	3	4	0	10	19
Other Interventions	0	0	1	1	6	2	10	19
Alternative Eduaction	0	1	0	1	6	1	9	17
Pupil Personnel Serv.	0	0	1	2	0	6	9	17
Parent Involvement	1	0	0	1	2	3	7	13
Dispute/Otr Mediation	1	0	1	0	1	0	3	6
Social Services	0	0	0	1	2	0	3	6
Community Invlvement	0	0	0	0	0	0	0	0
Other Police involvement	0	1	0	9	8	8	26	50
Memo of Agreement(w/law enforc	0	1	0	9	1	9	20	38
Behavior Expectations	0	2	1	1	1	2	7	13
Code of Conduct	0	0	0	0	2	0	2	4

Relative power = total/max. possible   max. possible = 52

From Table 4, the relative power of each programming variable, by category, can readily

be seen. There are a 52 total questions used in this section. The program variable (other police

involvement-resource officers) was statistically significant with 26 of the questions, yielding a

Relative Power Score of 50.

The School Programming Power Score is the summation of all programming variables for a given school; it is the strength of a school's programming. The School Violence Score is the sum of the scores in the Violence section of the YRBS (questions 12-20) for a school. Regression analysis was used to determine the relationship between the School Programming Power Score and the School Violence Score. Regression is a statistical process for determining the relationships, in this case the relationship between the School Programming Power Score and the Violence Score reported by students, between independent variable (school programs) and dependent variables (student responses on the YRBS). Table 5 displays the results of this analysis.

TABLE 5

SCHOOL PROGRAMMING POWER SCORE BY VIOLENCE SCORE

**** M U L T I P L E   R E G R E S S I O N ****

List-wise Deletion of Missing Data

Equation Number 1   Dependent Variable..   VIOLENCE SCORE

Block Number 1. Method: Enter   SCHOOL PROGRAMMING POWER SCORE

Variable(s) Entered on Step Number
  1.. POWER SCORE

Multiple R   .03471
R Square   .00120

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	73.62903	73.62903
Residual	2322	61048.68938	26.29143

F =   2.80050   Signif F = .0944

———————— Variables in the Equation ————————

Variable	T	Sig T
POWER SCORE	-1.673	.0944
(Constant)	32.677	.0000

The significant negative correlation between the School Programming Power Score and the Violence Score indicates that higher programming scores are associated with lower levels of violence. This relationship demonstrates an important association. Furthermore, the three schools whose students experience the least amount of violence all have multiple proactive programs designed to reduce it, including formalized conflict resolution programs. Additionally, each has at least four of the following: memorandum of agreement with law enforcement, mentoring, anger management, peer mediation, and police visits/resource officers. Conversely, the three least safe schools have fewer programs in place, and only one of them uses conflict resolution, although each uses police visits. Finally, none of the three least safe schools have a protocol provided by a memorandum of agreement.

<u>Hypothesis #3</u>

H_3: There is a significant relationship between the responses on the Youth Risk Behavior Survey for students in schools that practice pro-social programming compared to responses by students from schools which do not practice such programming.

H_0: There is no significant relationship between the responses on the Youth Risk Behavior Survey for students in schools that practice pro-social programming compared to responses by students from school which do not practice such programming.

The prevention and intervention programming present at the 30 separate schools in the sample was identified previously from corresponding subsets of the principal's questionnaire.

The individual programming efforts received a score based upon the number of significant interactions between the program variables and the risk-behavior questions on the YRBS. The sum of the individual programming scores present in a school yield a programming power score for that school. These scores were derived in the previous section. To test the third hypothesis, regression analysis is used to determine the relationship between the School Programming Power Score (a measure of programming effectiveness) and the seven behavioral risk categories listed earlier in Table 1. The categories are: alcohol driving, suicide, tobacco, drugs and sex.

Tables 6 through 16 display these results. Having been analyzed under Hypothesis 2, Violence is excluded in this section.

TABLE 6

SCHOOL PROGRAMMING POWER SCORE BY ALCOHOL DRIVING SCORE

**** MULTIPLE REGRESSION ****

Listwise Deletion of Missing Data

Equation Number 1   Dependent Variable.   ALCOHOL DRIVING SCORE

Block Number 1. Method: Enter   SCHOOL PROGRAMMING POWER SCORE

Variable(s) Entered on Step Number
 1.. POWERSC

Multiple R   .05375
R Square   .00289
Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	28.91291	28.91291
Residual	2360	9979.49183	4.22860

F =   6.83747   Signif F = .0090

Variable	T	Sig T
POWER SCORE	-2.615	.0090
(Constant)	25.181	.0000

Table 6 indicates a significant relationship between school programming and alcohol driving. The negative correlation illustrates that as programming increase in effectiveness, students' driving under the influence of alcohol and being driven by someone who has been drinking decreases.

Table 7 illustrates the statistically significant interactions between the programming variables and the YRBS questions, in this case, question 10 and 11. The actual YRBS questions are listed below the table.

TABLE 7

PROGRAM VARIABLES AND ALCOHOL DRIVING

Interaction between program variables and YRBS questions related to drinking and driving; the number inside the cell represents the statistical significance of the interaction.

	Q10	Q11
Conflict Resolution	0.00217	
Anger Management		0.00564
Mentoring		
Law Education		
Problem Solving Skills		
Police Visitation		
Values Ed.		
Prejudice Ed.		
Theater and Art Ed.		
Other preventative prog.		
Peer Mediation	0.00809	
Dispute/Otr Mediation	0.025	
Inschool Suspension Ed.		
Alternative Education		
Human Relations Group		
Parent Involvement	0.0395	
Community Involvement		
Social Services		
Pupil Personnel Serv.		
Other Interventions		
Code of Conduct		
Behavior Expectations		
Memo of Agreement (w/law enforcement)		
Other Police envolvement		

Q10. During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?
Q11. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

Few programming variables interact with these questions but the pattern of analysis is apparent.

Table 8 illustrates the relationship between the School Programming Power and the YRBS questions related to suicide.

TABLE 8

SCHOOL PROGRAMMING POWER SCORE BY SUICIDE SCORE

**** M U L T I P L E   R E G R E S S I O N ****

List-wise Deletion of Missing Data

Equation Number 1   Dependent Variable.. SUICIDE SCORE

Block Number 1. Method: Enter   SCHOOL PROGRAMMING POWER SCORE

Variable(s) Entered on Step Number
1.   SCHOOL PROGRAMMING POWER SCORE

Multiple R   .04332
R Square   .00188
Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	29.31405	29.31405
Residual	2343	15592.93072	6.65511

F =   4.40474   Signif F = .0359

--------------- Variables in the Equation ------------------

Variable	T	Sig T
POWER SC ORE	-2.099	.0359
(Constant)	40.703	.0000

Table 8 indicates a significant relationship between school programming and suicide. The negative correlation illustrates that as the School Programming Power increases, suicide ideation and suicide attempts decrease.

Table 9 illustrates the interaction between program variables and the YRBS questions related to suicide; the numbers inside the cells represent the statistical significance of the interaction.

TABLE 9

PROGRAM VARIABLES AND SUICIDE

		Q22	Q23	Q24	Q25	
Conflict Resolution				0.00035		
Anger Management						
Mentoring						
Law Education						
Problem Solving Skills					0.00473	
Police Visitation						
Values Ed.						
Prejudice Ed.					0.01387	
Theater and Art Ed.		0.00083				
Other preventative prog.						
Peer Mediation				0.00915		
Dispute/Otr Mediation				0.02577		
Inschool Suspension Ed.						
Alternative Education						
Human Relations Group		0.03561				
Parent Involvement						
Community Involvement						
Social Services						
Pupil Personnel Serv.				0.04598		
Other Interventions		0.00022		0.03406		
Code of Conduct						
Behavior Expectations		<.00000				
Memo of Agreement (w/law enforcement)						
Other Police envolvement						

Q22. During the past 12 months, did you ever seriously consider attempting suicide?
Q23. During the past 12 months, did you make a plan about how you would attempt suicide?
Q24. During the past 12 months, how many times did you actually attempt suicide?
Q25. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

The numbers inside the cells on Table 9 represent the statistical significance of the Interaction between the programming variable and the suicide questions. On the original principal's survey, Other Interventions was a category and the principals were asked what intervention was used. The principals specifying this category listed community mental health services.

Table 10 illustrates the regression equation of the School Programming Power Score

(independent variable) with the Tobacco Score (dependent variable).

TABLE 10

SCHOOL PROGRAMMING POWER SCORE BY TOBACCO SCORE

**** MULTIPLE REGRESSION ****

Listwise Deletion of Missing Data

Equation Number 1   Dependent Variable.. TOBSCR

Block Number 1. Method: Enter   POWERSC

Variable(s) Entered on Step Number
1. POWERSC
Multiple R   .04225
R Square   .00179
Analysis of Variance
            DF   Sum of Squares   Mean Square
Regression   1   348.52587   348.52587
Residual   2249   194874.48079   86.64939

F =   4.02225   Signif F = .0450
---------------- Variables in the Equation ----------------
Variable   T   Sig T
POWERSC   -2.006   .0450
(Constant)   29.393   .0000

Table 10 indicates a significant relationship between school programming and tobacco use. The

negative correlation illustrates that as School Programming Power increases, reported tobacco

use decreases.

Table 11 illustrates the programming variables' interaction with the YRBS questions. The numbers in the cells represent the statistical significance of the interaction.

TABLE 11

PROGRAM VARIABLES AND TOBACCO USE

	Q26	Q27	Q28	Q29	Q31	Q32	Q33	Q34	Q35
Conflict Resolution		0.00912							
Anger Management								0.04553	0.04247
Mentoring							0.00007	0.03781	
Law Education					0.02455	0.00001			
Problem Solving Skills	0.03391	0.02343		0.01614	0.00147				
Police Visitation					0.02474				
Values Ed.	0.01694		0.01715		0.00503			0.00389	0.03116
Prejudice Ed.									
Theater and Art Ed.									
Other preventative prog.			0.03534				0.01737		
Peer Mediation					0.00708		0.00585		
Dispute/Otr Mediation									
Inschool Suspension Ed.								0.00002	0.00513
Alternative Education					0.00064				
Human Relations Group	0.05574				0.04326		0.00175		
Parent Involvement							0.01262		
Community Involvement									
Social Services							0.00747		
Pupil Personnel Serv.								0.04323	0.00307
Other Interventions							0.01605		
Code of Conduct									
Behavior Expectations							0.05082		
Memo of Agreement (w/law enforc	0.00088	0.0002	0.00121	0.00021	0.00019	0.00148	0.00102	<.00000	<.00000
Other Police envolvement	0.00006	<.00000	0.00353	0.01602	0.00645	0.03567	<.00000	0.00008	<.00000

Q26. Have you ever tried cigarette smoking, even one or two puffs?
Q27. How old were you when you smoked a whole cigarette for the first time?
Q28. During the past 30 days, on how many days did you smoke cigarettes?
Q29. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per days?
Q31. During the past 30 days, on how many days did you smoke cigarettes on school property?
Q32. Have you ever tried to quit smoking?
Q34. During the past 30 days, on how many days did you use chewing tobacco or snuff?
Q35. During the past 30 days, on how many days did you use chewing tobacco or snuff on school property?

The table illustrates a large number of significant interactions. One would expect several of these variables to impact on teen smoking, like police involvement. This table also illustrates variables not normally associated with a reduction in smoking like problem solving and values education as examples.

Table 12 illustrates the regression equation for the School Programming Power Score (independent variable) and the School Drug Score (dependent variable).

TABLE 12

SCHOOL PROGRAMMING POWER SCORE BY DRUG SCORE

**** MULTIPLE REGRESSION ****

List-wise Deletion of Missing Data

Equation Number 1   Dependent Variable.. DRUG SCORE

Block Number 1. Method: Enter   SCHOOL PROGRAMMING POWER SCORE

Variable(s) Entered on Step Number
  1. POWER SCORE

Multiple R   .07301
R Square   .00533
Analysis of Variance
                DF   Sum of Squares   Mean Square
Regression   1   2177.46306   2177.46306
Residual   2245   406343.54628   180.99935

F =   12.03023   Signif F = .0005

---------------- Variables in the Equation -----------------

Variable	T	Sig T
POWERSC	-3.468	.0005
(Constant)	35.008	.0000

Table 12 indicates a significant relationship between school programming and drug use. The

negative correlation illustrates that as School Programming Power increases, reported drug use

decreases. The T in this case suggests a relatively strong, negative relationship between

programming and drug use; the significant T would suggest a highly statistically significant

relationship. This relationship would imply that drug use would respond to programming.

Table 13 illustrates the programming variables and the questions on the YRBS. The numbers inside the cells represent the statistical significance of the interaction.

TABLE 13

PROGRAM VARIABLES AND DRUG USE

	Q36	Q37	Q38	Q39	Q40	Q41	Q42	Q43
Conflict Resolution	0.04274		0.00587		0.00014	0.01125		
Anger Management								
Mentoring				0.02023				
Law Education								
Problem Solving Skills						0.0061	0.01152	
Police Visitation								
Values Ed.			0.03842					
Prejudice Ed.								
Theater and Art Ed.								
Other preventative prog.		0.00167		0.02101				
Peer Mediation	0.01343	0.01438		0.02347		0.00066	0.00121	0.00931
Dispute/Otr Mediation					0.00713			
Inschool Suspension Ed.								
Alternative Education				0.02801		0.01449	0.03072	
Human Relations Group	0.00188	0.01005		0.03044				
Parent Involvement					0.00149			
Community Involvement								
Social Services	0.01169					0.04179		
Pupil Personnel Serv.								
Other Interventions	0.01218						0.00374	0.04071
Code of Conduct								
Behavior Expectations								
Memo of Agreement (w/law enforcement)						<.00000	<.00000	<.00000
Other Police envolvement	0.02723	0.00297				<.00000	0.00001	0.00084

Q36. How old were you when you had your first drink of alcohol other than a few sips?
Q37. During your life, on how many days have you had at least one drink of alcohol?
Q38. During the past 30 days, on how many days did you have at least one drink of alcohol?
Q39. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?
Q40. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?
Q41. How old were you when you tried marijuana for the first time?
Q42. During your life, how many times have you used marijuana?
Q43. During the past 30 days, how many times did you use marijuana?

TABLE 13 (CONTINUED)

	Q46	Q47	Q48	Q49	Q50	Q51	Q52	Q53
Conflict Resolution		0.00059		0.00187	0.0494			
Anger Management					0.01666		0.01904	
Mentoring				0.01636			0.01043	
Law Education								
Problem Solving Skills					0.01292		0.03856	0.03347
Police Visitation								
Values Ed.							0.00372	0.00222
Prejudice Ed.								
Theater and Art Ed.								
Other preventative prog.								
Peer Mediation		0.03162		0.03682				
Dispute/Otr Mediation								
Inschool Suspension Ed.		0.00037					0.00475	0.0002
Alternative Education		0.00258						0.01054
Human Relations Group								
Parent Involvement				0.02953				
Community Involvement								
Social Services								
Pupil Personnel Serv.								
Other Interventions				0.04822				
Code of Conduct		0.0245						0.02587
Behavior Expectations							0.0221	
Memo of Agreement			0.00005					
Other Police envolvement			0.00017					0.01142

Q46. During your life, how many times have you used any form of cocaine, including powder, crack or freebase?

Q47. During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?

Q48. During your life, how many times have you used the crack or freebase forms of cocaine?

Q49. During you life, how many times have you sniffed glue or breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?

Q50. During your life, how many times have you taken steroid pills or shots without a doctor's prescription?

Q51. During your life, how many times have you used any other type of illegal drug, such as LSD, PCP, ecstasy, mushrooms, speed, ice, or heroin?

Q52. During your life, how many times have you used a needle to inject any illegal drug into your body?

Q53. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

As expected, involvement with police and in-school suspension can be seen. However, the unexpected power of conflict resolution and peer mediation can also be readily observed.

Table 14 illustrates the relationship between School Programming Power Score and the questions on the YRBS survey questions about sexual behavior.

<div align="center">TABLE 14</div>

SCHOOL PROGRAMMING POWER SCORE BY SEX SCORE

**** MULTIPLE REGRESSION ****

Listwise Deletion of Missing Data

Equation Number 1   Dependent Variable..   SEXSCR

Block Number 1. Method: Enter   POWERSC

Variable(s) Entered on Step Number
  1..   POWERSC

Multiple R   .03980
R Square   .00158

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	226.31033	226.31033
Residual	2285	142648.57555	62.42826

F =   3.62513   Signif F = .0570

---------------- Variables in the Equation ----------------

Variable	T	Sig T
POWERSC	-1.904	.0570
(Constant)	30.031	.0000

Table 14 indicates a significant relationship between school programming and sexual

behavior. The negative correlation illustrates that as School Programming Power increases,

reported sexual behavior decreases.

Table 15 illustrates the interaction between program variables and the questions on the YRBS related to sexual behavior.

TABLE 15
PROGRAM VARIABLES AND SEXUAL BEHAVIOR

	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63
Conflict Resolution						0.00756	0.0002	0.03839	0.01004	
Anger Management										
Mentoring	<.00000	0.04681								
Law Education										
Problem Solving Skills		0.04905			0.00377		0.0391	0.02994		
Police Visitation			0.00013	0.03872	0.00337	0.04027	0.0017	0.00153	0.01023	
Values Ed.		0.00013								
Prejudice Ed.							0.0403			
Theater and Art Ed.										
Other preventative prog.										
Peer Mediation			0.00134	0.00076	0.00415	0.00782	0.00164	0.00415	0.00295	
Dispute/Otr Mediation										
Inschool Suspension Ed.			0.04887		0.03774		0.01055		0.01472	0.00038
Alternative Education		0.0086								
Human Relations Group										
Parent Involvement					0.00382		0.00197			0.0203
Community Involvement										
Social Services										
Pupil Personnel Serv.	0.04329		0.0073	0.03004		0.0263	0.00923		0.01559	
Other Interventions		0.03373								0.03574
Code of Conduct										
Behavior Expectations	0.03128									0.01986
Memo of Agreement	0.01334		<.00000	<.00000	<.00000	<.00000	<.00000	<.00000	<.00000	0.0067
Other Police envolvement		0.00452	0.0001	<.00000	0.00059	0.00019	0.00004	0.00046	0.00026	

Q54. Have you ever been taught about AIDS or HIV infection in school?

Q55. Have you ever talked about AIDS or HIV infection with your parents or other adults in your family?

Q56. Have you ever had sexual intercourse?

Q57. How old were you when you had sexual intercourse?

Q58. During your life, with how many people have you had sexual intercourse?

Q59. During the past 3 months, with how many people did you have sexual intercourse?

Q60. Did you drink alcohol or use drugs before you had sexual intercourse the last time?

Q61. The last time you had sexual intercourse, did you or your partner use a condom?

Q62. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?

Q63. How many times have you been pregnant or gotten someone pregnant?

The numbers inside the cells in Table 15 represent the statistical significance of the intersection between the program variable and the sexual behavior questions. This table illustrates that conflict resolution, police visits, peer mediation and pupil personnel services are all associated with reported decreased sexual behavior.

Table 16 displays the correlation coefficients between the School Programming Power

Score and the composite variables on the YRBS. The School Programming Power Score is the

value placed on the cumulative programming present at a school (refer to Table 4, Program

Variables and Relative Power). The composite variables are the sum of the question scores in

each section of the YRBS. The School Programming Power Score is compared to the summative

scores in each of the YRBS categories. This compares the school's programming across each of

the separate sections of the YRBS and allows a more specific analysis.

TABLE 16

PROGRAMMING POWER BY COMPOSITE VARIABLES

Variable	Cases	Mean	Std Dev
POWER SCORE	2364	113.0664	32.2748
SCHOOL SAFETY	2323	2.2451	.7145
ALCOHOL DRIVING SCORE	2674	3.5366	2.1100
VIOLENCE SCRORE	2626	12.1744	5.2610
SUICIDE SCRORE	2654	7.5320	2.6054
TOBACCO SCRORE	2542	20.0126	9.4466
DRUG SCRORE	2540	33.0201	13.5739
SEX SCRORE	2585	17.2217	8.0362

- - Correlation Coefficients - -

	POWERSC	SCHSAFE	ALDRVSCR	VIOLSCR	SUISCR	TOBSCR
POWERSC	1.0000	-.0648	-.0537	-.0347	-.0433	-.0423
	(2364)	(2069)	(2362)	(2324)	(2345)	(2251)
	P= .	P= .003	P= .009	P= .094	P= .036	P= .045
SCHSAFE	-.0648	1.0000	.7191	.5768	.6415	.7873
	(2069)	(2323)	(2323)	(2323)	(2323)	(2323)
	P= .003	P= .	P= .000	P= .000	P= .000	P= .000
ALDRVSCR	-.0537	.7191	1.0000	.3120	.2171	.4922
	(2362)	(2323)	(2674)	(2625)	(2653)	(2541)

	P= .009	P= .000	P= .	P= .000	P= .000	P= .000
VIOLSCR	-.0347	.5768	.3120	1.0000	.4432	.3683
	(2324)	(2323)	(2625)	(2626)	(2608)	(2497)
	P= .094	P= .000	P= .000	P= .	P= .000	P= .000
SUISCR	-.0433	.6415	.2171	.4432	1.0000	3516
	(2345)	(2323)	(2653)	(2608)	(2654)	(2526)
	P= .036	P= .000	P= .000	P= .000	P= .	P= .000
TOBSCR	-.0423	.7873	.4922	.3683	.3516	1.0000
	(2251)	(2323)	(2541)	(2497)	(2526)	(2542)
	P= .045	P= .000	P= .000	P= .000	P= .000	P= .
DRUGSCR	-.0730	.8517	.6259	.4627	.3970	.7152
	(2247)	(2323)	(2539)	(2499)	(2525)	(2428)
	P= .001	P= .000	P= .000	P= .000	P= .000	P= .000
SEXSCR	-.0398	.7423	.4039	.3579	.3053	.5173
	(2287)	(2323)	(2584)	(2542)	(2570)	(2469)
	P= .057	P= .000	P= .000	P= .000	P= .000	P= .000

-- Correlation Coefficients --

DRUGSCR   SEXSCR

	DRUGSCR	SEXSCR
POWERSC	-.0730 (2247) P= .001	-.0398 (2287) P= .057
SCHSAFE	.8517 (2323) P= .000	.7423 (2323) P= .000
ALDRVSCR	.6259 (2539) P= .000	.4039 (2584) P= .000
VIOLSCR	.4627 (2499) P= .000	.3579 (2542) P= .000
SUISCR	.3970 (2525) P= .000	.3053 (2570) P= .000
TOBSCR	.7152 (2428) P= .000	.5173 (2469) P= .000
DRUGSCR	1.0000 (2540) P= .	.6004 (2475) P= .000
SEXSCR	.6004 (2475) P= .000	1.0000 (2585) P= .

Table 16 illustrates that the School Programming Power Score has a correlation

coefficient of .003 with the School Safety Score; overall programming is clearly correlated with

overall school safety. It also illustrates that overall programming, while significantly correlated

with all categories on the YRBS, the correlation varies by category.

Programming Effect Size

This last section is designed to give the numerical analysis the appropriate flavor of a school context. The proportion of variance (r^2) explained in the YRBS risk variables by the programming variables is relatively small. The following tables are a series of Chi Square cross-tabulations which show both the observed and expected counts with and without the program. The tables also show the correlation between the program variables (independent) and the YRBS questions (dependent). The difference between the observed and expected values quantifies the practical significance of the impact of the programming variables on the risk behaviors.

TABLE 17

CONFLICT RESOLUTION AND SAFETY

Conflict resolution programming by Q15N During the last 30 days, how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?

```
                Q15N
     Observed   "
     Expected   "    0 days   1 day   2 or 3   4 or 5   6 or more days
                "                                                   Row
                "    1.00"    2.00"   3.00"    4.00"    5.00" Total
CONFRESO     """""""""."""""""""."""""""""."""""""""."""""""""."""""""""" >
   No Program  "    762  "     5  "     6  "     1  "    14  "    788
                " 760.2  "  11.5  "   7.1  "   2.1  "   7.1  " 29.6%
                §"""""""""."""""""""."""""""""."""""""""."""""""""" >
    Program     " 1810   "    34  "    18  "     6  "    10  "   1878
     "           1811.8  "  27.5  "  16.9  "   4.9  "  16.9" 70.4%
                -""""""""""[""""""""""[""""""""""[""""""""""[""""""""""-
       Column   2572       39       24        7       24      2666
        Total   96.5%     1.5%      .9%      .3%      .9%    100.0%
```

Chi-Square Significance	Value	DF	Significance
Pearson	15.82131	4	.00327
Likelihood Ratio	15.83010	4	.00326
Mantel-Haenszel test for linear association	2.09017	1	.14825

Minimum Expected Frequency - 2.069
Cells with Expected Frequency < 5 - 2 OF 10 (20.0%)

Approximate Statistic Significance	Value	ASE1	Val/ASE0	Significance
Contingency Coefficient *1	.07681			.00327
Pearson's R *4	-.02801	.02144	-1.44604	.14828
Spearman Correlation *4	.00663	.01913	.34199	.73238

Number of Missing Observations: 10

With this particular question, the difference between offering conflict resolution programming to students is best seen in the extreme cells. Without offering the program, 7 students would be expected to be absent from school because of their safety concerns for 6 or

more days. In reality, twice as many students are observed to be absent as were expected. Given a program in place, 17 students would be expected to be absent, but only 10 are observed to be absent for 6 or more days out of 30. In practical terms, having a conflict resolution program is related to approximately a 50% improvement in attendance by students who would have stayed away from school because of feeling unsafe at school or on the way to or from school.

TABLE 18

MENTORING AND WEAPONS CARRYING

MENTORNG by Q14N   During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

```
                        Q14N
        Observed        "
        Expected Val    "   0 days  1 day    2/3      4/5       6 or more days
                        "                                                 Row
                        "   1.00"   2.00"    3.00"    4.00"    5.00" Total
MENTORNG   """""""""."""""""""."""""""""."""""""""."""""""""."""""""" ,
  No program   0  "  1437   "   42    "   43    "   11   "  140   "  1673
                 "1458.0   "  37.6   "  44.5   "  11.9  " 121.0   " 62.7%
                 §"""""""""."""""""""."""""""""."""""""""."""""""" ,
  program      1  "   889   "   18    "   28    "    8   "   53   "   996
                 "  868.0   "  22.4   "  26.5   "   7.1  "  72.0   " 37.3%
                 _"""""""""□"""""""""□"""""""""□"""""""""□"""""""""-
        Column   2326      60        71        19       193      2669
        Total    87.1%     2.2%      2.7%      .7%      7.2%    100.0%
```

```
        Chi-Square              Value            DF
Significance
---------------------          -----------      ----             ----------
--
Pearson                        10.52164         4                .03250
Likelihood Ratio               10.92540         4                .02742
Mantel-Haenszel test for        7.44928         1                .00635
    linear association

Minimum Expected Frequency -    7.090

Approximate
    Statistic                  Value            ASE1     Val/ASE0
Significance
---------------------          ---------        -------  --------         --------
Contingency Coefficient        .06266                                     .03250
Pearson's R                   -.05284          .01834   -2.73264          .00632
Spearman Correlation          -.05012          .01862   -2.59185          .00960
```

The difference between having a program and not having a program is clearly

demonstrated in the cell for carrying a weapon 6 or more days per month. Without a program,

the expected rate is 121 but in observations, 140 students carried a weapon. With a program, the

expected rate is 72, but there were actually 53 students carrying a weapon on school grounds 6 or

more days. The impact of having a mentoring program may mean, among other things, 38 fewer

students carrying a weapon on school grounds, 6 or more days per month.

TABLE 19

CONFLICT RESOLUTION AND COCAINE USE

CONFRES by Q47N During your life, how many times have you used any form of cocaine, including powder, crack or freebase?

```
                    Q47N
Observed Count    "
  Expected Val    "   0          1-2        3-9        10-19      20-39
                  "                                                        Row
                  "     1.00"     2.00"      3.00"      4.00"      5.00" Total
CONFRES           """"""""""."""""""""".""""""""""."""""""""".""""""""""."""""""""" >
  No program   0  "    707    "     20    "      7   "      6   "      1   "    751
                  "  716.3    "   17.2    "    8.7   "    2.5   "    2.3   " 28.2%
                  §""""""""""."""""""""".""""""""""."""""""""".""""""""""."""""""""" >
  Program      1  "   1832    "     41    "     24   "      3   "      7   "   1911
                  " 1822.7    "   43.8    "   22.3   "    6.5   "    5.7   " 71.8%
                  _""""""""""□""""""""""□""""""""""□""""""""""□""""""""""-
       Column     2539          61         31          9          8      2662
       Total      95.4%         2.3%       1.2%        .3%        .3%    100.0%
```

```
                  "   40 or more
                  "             Row
                  "     6.00"  Total
CONFRES           """"""""""."""""""""" >
           0      "     10   "    751
                  "    3.9   " 28.2%
                  §"""""""""" >
           1      "      4   "   1911
                  "   10.1   " 71.8%
                  _""""""""""-
       Column     14         2662
       Total      .5%       100.0%
```

Chi-Square Significance	Value	DF	Significance
Pearson	21.74113	5	.00059
Likelihood Ratio	19.35608	5	.00165
Mantel-Haenszel test for linear association	8.35093	1	.00385

Minimum Expected Frequency -   2.257
Cells with Expected Frequency < 5 -   3 OF   12 (25.0%)

Approximate Statistic Significance	Value	ASE1	Val/ASE0	Significance
Pearson's R	-.05602	.02173	-2.89380	.00384
Spearman Correlation	-.03781	.02069	-1.95153	.05110

In this particular combination of programming and behavior, the benefits of having a program can be easily seen across each cell. Looking at the cell where the student response is "40 or more," with a program, 4 students fit this category whereas, based on the total population, the expected count is 10. Without a conflict resolution program, 10 students report using cocaine 40 or more times, while the expected number of students fitting this category is 4 (3.9). The relationship between the student reports on cocaine use from schools offering conflict resolution programming and those that do not offer programming are dramatic.

TABLE 20

CONFLICT RESOLUTION AND SEX WITH DRUGS

Conflict resolution programming by Q60N Did you drink alcohol or use drugs before you had sexual intercourse the last time?

```
                   Q60N
Observed Count    "
Expected  Val  "No sex      No          Yes
               "                                  Row
               "    1.00"     2.00"     3.00" Total
CONFRES    """"""""".""""""""".""""""""".""""""" >
No program   0  "    412  "    197  "    138  "    747
                "  433.8  "  208.3  "  104.9  "  28.3%
                5""""""""".""""""""".""""""" >
Program      1  "   1123  "    540  "    233  "   1896
                "1101.2  "  528.7  "  266.1  "  71.7%
                -"""""""""[]"""""""""[]"""""""-
         Column   1535        737        371       2643
         Total   58.1%      27.9%      14.0%     100.0%
```

Chi-Square	Value	DF	
Significance			
Pearson	16.99069	2	.00020
Likelihood Ratio	16.24267	2	.00030
Mantel-Haenszel test for linear association	10.69790	1	.00107

Minimum Expected Frequency - 104.857

Approximate Statistic	Value	ASE1	Val/ASE0	
Significance				
Pearson's R	-.06363	.02018	-3.27679	.00106
Spearman Correlation	-.05385	.01994	-2.77141	.00562

In this example, having conflict resolution programming is associated with a reduction of 60 students from having sex after drinking alcohol.

CHAPTER FIVE

SUMMARY, DISCUSSION AND RECOMMENDATIONS

The primary purpose of this study was to determine whether or not there exists a relationship between the safety of students in high school and the pro-social activities and programming the students experience in school. The study first elucidated the specific level of crime and violence experienced by students in Montana high schools. It further determined how such factors as pro-social school activities and prevention/intervention practices are associated with students' risk behaviors.

Summary

Violence in America's schools threatens an entire generation of students, yet to date there has been little attempt to evaluate the many existing programs aimed at reducing it. Schools seeking to reduce the risk factors that "cause significant mortality and morbidity and are largely preventable" (Kann, personal communication, April 17, 1998) are at a loss for data supporting their decision to add, delete, or modify programs.

The research on cognitive and social learning has improved schools' abilities to develop pro-social programming designed to alleviate or eliminate risk behaviors. Hawkins' (1997) social development model has explained why both healthy and high risk behaviors emerge over the course of adolescent development. Catalano and Hawkins (1996) have also established a connection between students school success and their health. Given our understanding that behavior is the product of an individual's interaction with his or her environment, educators have long been aware that schools are a major social development institution in American society (Hawkins and Weis, 1985). It is within this theoretical framework that this study was conducted.

Discussion

The sample population was comprised of the students and principals in Montana Class A and AA high schools participating in the Montan Youth Risk Behavior Survey. Since the YRBS survey is anonymous, the principals from all 37 A and AA schools were provided a survey. Thirty-six of the 37 surveys were returned, for a response rate of 97%. Such a high response rate gives some indication of the desire on the part of administrators to make their schools safer. Six schools did not participate in the YRBS survey. The student responses from the 30 YRBS participant schools were matched to their principals' violence survey. The principals and students from these 30 schools comprise the entire sample for this study, representing approximately 60 percent of the high school students in Montana.

The principal's survey was developed by the New Jersey Department of Education and used across that state, as well as in three additional studies to date. The mass of data generated and the specificity of the tested hypotheses required the use of two question sets: Which programming and intervention strategies were used at your school? and which of these programs and strategies do you (principal) view as effective? The either/or nature of the principal's questions eliminated much of the subjectivity. However, there is no measure of the pro-social programs' size, whether many or few students participated, the length of time the program was in effect, or its effectiveness. These factors and others would certainly support or detract from a program's effect, but they were not part of this study.

The Office of Public Instruction administers the Montana Youth Risk Behavior survey throughout Montana to a random sample of selected schools. Additionally, it is administered to other schools that wish to participate in the survey. This study used the student responses on the YRBS as the dependent variables. The sample is nearly three thousand students responding to a self-report survey. On this instrument, 71% of the items are classified as "having substantial or higher reliability and a Kappa range of 61-100%" (Brener et. Al., 1995). Kappa "measures interjudgement agreement and is often used when examining reliability of ratings" (Howell, 1992, p.148). Reliability is a necessary characteristic of validity but does not ensure validity. Brener (1995) concluded, "Most have found that measures of illicit drug use, alcohol use, or tobacco use are fairly accurate. Meanwhile, this report adds to the growing literature on the reliability of self-reported health behavior data and provides evidence that a widely used adolescent survey has adequate reliability" (p. 580). The YRBS data and the Montana YRBS data have remained consistent across states. As one state official asserted, "It is the best data available for measuring the at-risk behaviors of large numbers of students across the state" (R. Chiotti, personal communication, March 25, 1998). It is also the best available independent measure of student behaviors.

Conclusions

Expecting a causal relationship upon student behavior, Dr. Laura Kann (personal communication, April 17, 1998), the director of the Youth Risk Behavior Survey, in Atlanta, queried, "I was wondering why you would expect school programs to be the determinants of kids' behaviors? What about their families, peers, the media, the

community, etc.? Which probably have a far greater impact. What if schools are just responding to problems kids have acquired elsewhere?"

Hypothesis #1 directly tested Dr. Kahn's question. This research indicates that a strong relationship does exist. While the proportion of variance explained in the YRBS risk variables by programming variables is small, they are far from insignificant. In fact, there is a statistically significant relationship between the pro-social programming provided by high schools and the risk factors experienced by students in those schools. That is a clear, compelling finding of this study.

The rising school violence that is reported daily concerns everyone. Hypothesis #2 tested whether students attending schools that provide pro-social programming experience less violence than students from schools that do not provide such programming. There is a statistically significant relationship between the violence reported on the Youth Risk Behavior Survey for students who attend schools with violence prevention and intervention programming in comparison to students who attend schools without this programming and as programming increases, violence decreases. In the sample population, conflict resolution, peer mediation, values education, pupil personnel services, social services, mentoring and police resource officers emerged as programming and intervention variables associated with safe schools. The three safest schools all had conflict resolution, peer mediation, pupil personnel services, mentoring and resource officers. In contrast, the three least safe schools had, at most, only two of these independent variables.

Hypothesis #3 tested the relationship between school programming and the other (non-violence) risk categories on the YRBS. The study found that there is a statistically

significant relationship between the responses on the YRBS for students in schools that practice pro-social programming compared to responses by students from schools that do not practice such programming. Those categories used in this study were alcohol driving, suicide, tobacco use, drug use, sexual activity and violence. There is a statistically significant relationship across all of these areas by multiple programs and as programming increases, risk factors decrease.

Conflict resolution, while primarily designed to reduce conflicts and violence, also yields secondary benefits. Conflict resolution is statistically related to reducing risk behaviors in every category in this study. Table 4 in Chapter IV outlines these added significant interactions.

Pro-social programs are not created equal. Two schools with four programs may have vastly different effects, depending upon which programs are in place. The "Programming Power Score" represents a quantification of the difference in effect. It has the potential to provide administrators concerned with school safety a way to assess their efforts and select programs which have the best history of providing the needed effect. There are 24 possible programming variables identified on the principal's survey. By selecting those with the greatest power, a school can provide the most effective programming within cost limitations. If a school were to have a conflict resolution program (Programming Power Score of 35), a problem-solving skills program, peer mediation, in-school suspension, and a resource officer at their disposal, the school would have a programming power score of 146. This would constitute 66% of the Programming Power available and may provide programming that was superior to other programming options that illustrated less effect on student behavior. The students in that

school would experience high levels of safety, at relatively low cost and the school would

reflect a promising approach in the abatement of high-risk behaviors.

Recommendations

Recommendations of two types conclude this investigation. The first category is recommendations for research that would expand and complement the findings of this study. The second category includes recommendations for changes in practice and policy to address the implications of these conclusions.

Recommendations for Further Study

The behavioral difference shown by students at the three safest schools contrasts markedly with those students at the three least safe schools, but the proportion of variance is small in all cases, and quantifying the program effectiveness may be difficult. Qualitative research, providing case study descriptions of the differences among various school environments (the safest and least safe) could prove very insightful. Such research has the potential to detail the unique needs of separate, at-risk populations. It may also shed light on the environmental differences, including community, family, and school, between students in the safest and least safe school. Understanding these differences would allow for more prescriptive and relevant programming.

Research into qualifying and quantifying the effectiveness of various pro-social programming within these school environments, while difficult, would be exceedingly useful. In this study, principals correctly assessed which programs in their schools were effective and which were ineffective. Understanding how they knew this or upon what basis they separated an effective program from an ineffective one should be the focus of another study in the near future.

Montana is not an urban environment, and it is comprised largely of a homogeneous population. Research that would replicate this study in other states and among urban high school students would be beneficial in illuminating unforeseen differences and similarities in dealing with America's youth.

Longitudinal research, which identifies changes in risk factors experienced by students before and after the implementation of various pro-social programming, should be conducted. Mulvey, Arthur and Reppucci (1993) reported that on the Perry Preschool Project longitudinal data revealed evidence of reductions in delinquency, teen pregnancy and crime. In a similar way, longitudinal data would be extremely useful in fostering a deeper understanding of the best ways to reduce risk factors. When students are starting to smoke, use drugs and engage in sex before the age of 12, there is no research to suggest that any high school program will be useful in changing these behaviors once established. At this point, schools' best hope is to delay the onset of these risk behaviors, if their complete prevention is not yet possible.

One lingering question of all research of this nature is the variability among schools' record-keeping systems. The states of Washington and Illinois are currently studying the possibility of having a uniform student offense-reporting process for schools. There is also a need to standardize and computerize the offense record-keeping process. Until some uniformity in record-keeping exists, it may well be that the violence situation is inaccurately portrayed in both school reports and the media.

A study examining the Codes of Conduct or Behavior Expectations in relation to student behavior would be beneficial in shedding light on the impact of such documents upon determining school safety. Does a rigorous Code of Conduct reduce crime and

violence, does it cause an increase, or does it have no effect whatsoever? Perhaps it is the teaching and integrating of the behavioral expectations, as opposed to mere rules, that is the real determinant.

Finally, although the principals' survey did not include a category for cooperative learning, it should have. Research should be conducted at the elementary and secondary level to determine whether or not learning, practicing, and integrating the behaviors taught through cooperative learning contribute to a safer school environment. Like conflict resolution, this is one program with the potential to have a powerful effect on safety.

Recommendations for Changes in Practice

The correlation table illustrates an unanticipated benefit from pro-social programming not directly associated with its target. Conflict resolution is normally implemented to reduce fighting and conflict. As would be expected, conflict resolution is significantly associated with reducing students carrying weapons and guns to school. It is also significantly associated with reducing the fear of a potential conflict at school. According to the data herein, this program is also significantly associated with reducing riding with drunk drivers and with reducing actual suicide attempts. Conflict resolution programming is associated with delaying the age of smoking and alcohol consumption by young people. It also reduces the frequency of drinking and drinking on school property. It has a similar relationship to reductions in the use of marijuana, cocaine, glue sniffing and other hard drugs. Conflict resolution is also significantly related to promoting sexual abstinence and reducing the number of sexual partners, as well as reducing the use of alcohol and drugs when having sex. While there is no "silver bullet" in solving the

problems associated with high school age students, this investigation strongly suggests that providing students with conflict resolution skills helps them to deal successfully with the inevitable conflicts and peer pressures of adolescents. This alone will go a long way in protecting our youth.

Models of conflict resolution vary greatly. The San Francisco Unified School District teaches a seven-step approach to be used in all conflictive situations (SFUSD Home Page, May 31, 1996). The first step is a brief cooling-off period. A conference with a peer mediator follows, providing time for each party to listen to and reflect on the other's perspective. Each party then presents his or her potential solutions, followed by collective brainstorming. The conflict is resolved when both parties agree on a solution and it is implemented. The high school model developed by Educators for Social Responsibility (Roderick, 1993) is similar. The model suggests that students be taught to slow down the action, listen, avoid interrupting, make eye contact, acknowledge feelings, and be strong without being mean. This approach encourages a ban on put-downs and an intent to seek win-win solutions, asking for help with stalemates. The underlying philosophy of this program reminds us that the true heroes and heroines are those who have the courage and intelligence to deal with conflict in creative, nonviolent ways. Conflict resolution is such an attractive program among educators that Lesley College in Massachusetts offers a graduate degree specializing in this area. Their program was developed in cooperation with Educators for Social Responsibility; their *Resolving Conflict Creatively Program* is an outgrowth of this relationship.

In addition to data underscoring the value of conflict resolution programs, this study also identified mentoring as beneficial. Mentoring programs are normally

instituted to guide young people by modeling appropriate behavior. They are associated with reductions in the usage of tobacco, alcohol, drug and delaying the onset of sexual activity. Mentoring supports the social learning theory that students can and do learn vicariously. It also illustrates the power of modeling as a vehicle for learning positive preventative life skills.

The "other preventative measures" are those actions taken locally by a school in response to an immediate crisis. Principals on the survey listed administrative intervention, behavior contracts, open communication, counseling (mental health), youth drug court, and sensitivity training as activities in this category. Using a variety of resources at hand, it may be that principals see the engagement with students in trying to resolve problems as demonstrations of educators' willingness to help.

Other police interventions in the form of school resource officers, as expected, are significantly associated with reducing fights that lead to personal injury. This strategy is also significantly associated with nearly every question on the drug portion of the survey. This strategy delays or eliminates the onset of students' use of alcohol, tobacco, marijuana, cocaine, and other drugs. Because of this delay in the age of first use, there is also a reduction in nearly every other associated category. An unanticipated benefit of this strategy is also the increase in age before sexual activity on the part of teenagers, with a corresponding reduction in associated risk factors. Adolescents seem to observe and sense the cooperation among the adults with whom they interact, although that cooperation is difficult to measure. A community environment that is integrated in supporting young people has a positive effect and these data illustrate a statistically significant relationship between schools with resource officers and students involved in

community-sponsored sports activities. Thus, communities where schools and law enforcement personnel work together are safer and healthier.

Although most communities have a strong spirit of cooperation between schools and police agencies, there is still a need for joint planning and preparation. Some standards may or may not require a written agreement between police and schools to deal with various situations; nonetheless, in some emergencies it is mandatory. Not only should the protocol be written, but police departments should rehearse. Both Dade County, Florida, and Las Vegas, Nevada, have school-police web pages. On these pages are listed memorandums of agreement and descriptions of school-police operations, anticipated and rehearsed.

The two safest schools are two of the largest schools in Montana; the third safest school is also in the top ten in terms of size. The three least safe schools are in the bottom third in size. This study indicated, however, that in Montana, school programming is much more important than school size. At a time when educators are concerned with large schools fostering a type of alienation and anomie, these findings lead to recommendations applicable to all schools regardless of size.

The three schools that are the least safe have a disproportionate number of students starting the use of tobacco, alcohol, marijuana, other drugs, and sex at very early ages—specifically, age 10 or younger. Such data suggests that prosocial programming, if not already present, be started in elementary school.

Pupil personnel or school counseling services are significantly associated with a reduction in actual suicide attempts, as well as a reduction in chewing tobacco at school and some sexual risk behavior. However, the overall significance of counseling services

in these areas is less than that of conflict resolution, mentoring programs, school resource officers, values education and social services. This disappointing finding suggests that the training of school counselors does not adequately prepare them for mitigating students' high-risk behaviors. One recommendation in this area is for schools to move toward a social worker model. A counseling model that includes families and larger portions of the community in efforts aimed at reducing youth risk behaviors may be more appropriate for contemporary high school students.

School programming is complicated, expensive, and demanding. School leaders must have access to a range of effective program models from which to choose. Better still, they must be able to anticipate specific outcomes emerging from their choices. Selecting solutions to school violence will be a local charge. Each school and community will need to assess students' risk factors and associated behaviors in order to determine the optimal course of action. This study provides schools and communities with information about the relationship between school programming and students' risk behaviors that they can use as they make such determinations. School violence and teenagers' dangerous behaviors are not likely to disappear with simple approaches, but will instead require collaboration among schools, families, law enforcement, and communities. Only by working together do we stand a chance of protecting the youth of tomorrow.

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APPENDIX A

Montana Youth Risk Behavior Survey

Questions from Montana Youth Risk

Behavior Survey

1. How old are you?

    a. 12 years old or younger

    b. 13 years old

    c. 14 years old

    d. 15 years old

    e. 16 years old

    f. 17 years old

    g. 18 years old or older

2. What is your sex?

    a. Female

    b. Male

3. In what grade are you?

    a. 7th grade

    b. 8th grade

    c. 9th grade

    d. 10th grade

    e. 11 grade

    f. 12th grade

    g. Ungraded or other

4. How do you describe yourself?

    a. White- not Hispanic

    b. Black - not Hispanic

    c. Hispanic or Latino

    d. Asian or Pacific Islander

    e. American Indian or Alaskan

Native

    f. Other

10. During the past 30 days, how many time did you ride in a car or other vehicle driven by someone who had been drinking alcohol?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or more times

11. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or more times

12. During the past 30 days, on how many days did you carry a weapon such as a gun, knife or club?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or more times

13. During the past 30 days, on how many days did you carry a gun?

    a. O times

    b. 1 time

    c. 2 or 3 times

d. 4 or 5 times

e. 6 or more times

14. During the past 30 days, on how many days did you carry a weapon such as a gun, knife or club on school property?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or more times

15. During the past 30 days, how may days did you not go to school because you felt you would be unsafe at school or on your way to or from school?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or more times

16. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or more times

17. During the past 12 months, how may times has someone stolen or deliberately damaged your property such as your car, clothing, or books on school property?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or more times

18. During the past 12 months, how many times were you in a physical fight?

    a. O times

    b. 1 time

c. 2 or 3 times

d. 4 or 5 times

e. 6 or more times

19. During the past 12 months, how may times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or more times

20. During the past 12 months, how may times were you in a physical fight on school property?

    a. O times

    b. 1 time

    c. 2 or 3 times

    d. 4 or 5 times

    e. 6 or 7 times

    f. 8 or 9 times

    g. 10 or 11 times

    h. 12 or more times

21. The last time you were in a physical fight, with whom did you fight?

a. I have never been in a physical fight

b. A total stranger

c. A friend or someone I know

d. A boyfriend, girlfriend, or date

e. A parent, brother, sister, or other family member

f. Someone not listed above

g. More than one of the persons listed above

22. During the past 12 months, did you ever seriously consider attempting suicide?

a. Yes

b. No

23. During the past 12 months, did you make a plan about how you would attempt suicide?

a. Yes

b. No

24. During the past 12 months, how may times did you actually attempt suicide?

a. O times

b. 1 time

c. 2 or 3 times

d. 4 or 5 times

e. 6 or more times

25. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

a. I did not attempt suicide during 12 months

b. Yes

c. No

26. Have you ever tried smoking cigarettes, even on or two puffs?

a. Yes

b. No

27. How old were you when you smoked a whole cigarette for the first time?

    a. I have never smoked a whole cigarette

    b. 8 years old or younger

    c. 9 or 10 years old

    d. 11 or 12 years old

    e. 13 or 14 years old

    f. 15 or 16 years old

    g. 17 years old or older

28. During the past 30 days, on how many days did you smoke cigarettes?

    a. 0 days

    b. 1 or 2 days

    c. 3 to 5 days

    d. 6 to 9 days

    e. 10 to 19 days

    f. 20 to 29 days

    g. All 30 days

29. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

    a. I did not smoke cigarettes during the past 30 days

    b. Less than 1 cigarette per day

    c. 1 cigarette per day

    d. 2 to 5 cigarettes per day

    e. 6 to 10 cigarettes per day

    f. 11 to 20 cigarettes per day

    g. More than 20 cigarettes per day

30. During the past 30 days, how did you usually get your own cigarettes? (Select only one response.)

    a. I did not smoke cigarettes during the past 30 days

    b. I bought them in a store such as a convenience store, supermarket, or gas station

    c. I bought them from a vending machine

    d. I gave someone else money to buy them for me

e. I borrowed them from someone else

f. I stole them

g. I got them some other way

32. During the past 30 days, on how many days did you smoke cigarettes on school property?

a. 0 days

b. 1 or 2 days

c. 3 to 5 days

d. 6 to 9 days

e. 10 to 19 days

f. 20 to 29 days

g. All 30 days

36. How old were you when you had your first drink of alcohol other than a few sips?

a. I have never had a drink of alcohol other than a few sips

b. 8 years old or younger

c. 9 or 10 years old

d. 11 or 12 years old

e. 13 or 14 years old

f. 15 or 16 years old

g. 17 years old or older

37. During your life, on how many days have you had at least one drink of alcohol?

a. 0 days

b. 1 to 2 days

c. 3 to 9 days

d. 10 to 19 days

e. 20 to 39 days

f. 40 to 99 days

g. 100 or more days

38. During the past 30 days, on how many days did you have al least one drink of alcohol?

a. 0 days

b. 1 to 2 days

c. 3 to 5 days

d. 6 to 9 days

e. 10 to 19 days

f. 20 to 29 days

g. All 30

39. During the past 30 days, on ;how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

a. 0 days

b. 1 to 2 days

c. 3 to 5 days

d. 6 to 9 days

e. 10 to 19 days

f. 20 or more days

40. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?

a. 0 days

b. 1 to 2 days

c. 3 to 5 days

d. 6 to 9 days

e. 10 to 19 days

f. 20 to 29 days

g. All 30

41. How old were you when you tried marijuana for the first time?

a. I have never tried marijuana

b. 8 years old or younger

c. 9 or 10 years old

d. 11 or 12 years old

e. 13 or 14 years old

f. 15 or 16 years old

g. 17 years old or older

42. During your life, how many times have you used marijuana?

a. 0 times

b. 1 to 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 to 99 times

g. 100 or more times

43. During the past 30 days, how many times did you use marijuana?

a. 0 times

b. 1 or 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 or more times

44. During the past 30 days, how many times did you use marijuana on school property?

a. 0 times

b. 1 or 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 or more times

45. How old were you when you tried any form of cocaine, including powder, crack, or freebase, for the first time?

a. I have never cocaine

b. 8 years old or younger

c. 9 or 10 years old

d. 11 or 12 years old

e. 13 or 14 years old

f. 15 or 16 years old

g. 17 years old or older

46. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?

a. 0 times

b. 1 or 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 or more times

47. During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?

a. 0 times

b. 1 or 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 or more times

48. During you life, how many times

have you used the crack or freebase

forms of cocaine?

a. 0 times

b. 1 or 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 or more times

49. During your life, how many times

have you sniffed glue, or breathed the

contents of aerosol spray cans, or

inhaled any paints or sprays to get high?

a. 0 times

b. 1 or 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 or more times

50. During your life, how many times

have you taken steroid pills or shots

without a doctor's prescription?

a. 0 times

b. 1 or 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 or more times

51. During your life, how many times

have you used any other type of illegal

drug, such as LSD, PCP, ecstasy,

mushrooms, speed, ice, or heroin?

a. 0 times

b. 1 or 2 times

c. 3 to 9 times

d. 10 to 19 times

e. 20 to 39 times

f. 40 or more times

52. During your life, how many times

have you used a needle to inject any

illegal drug into your body?

a. 0 times

b. 1 time

c. 3 or more times

53. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

a. Yes

b. No

54. Have you ever been taught about AIDS of HIV infection in school?

a. Yes

b. No

55. Have you ever talked about AIDS of HIV infection with your parents or other adults in your family?

a. Yes

b. No

83. During the past 12 months, on how many sports teams, run by your school, did you play? (Do not include P.E. classes.)

a. 0 teams

APPENDIX B

Montana Assessment of School Violence
Summer 1997

General instructions: Thnak you for taking the time to complete this survey. Please answer all parts of all questions. The information requested should be reported for the 1996-1997 academic year. Base you responses on your judgement and on the data sources available to you. If you have any questions regarding the survey, call John Frederikson at 406-728-2401.

I. Nature and extent of school violence (1996-1997 school year)

In question 5, the term "bullying" refers to the threat of violence by one student toward another (e.g., teasing, threatening, extorting); it may or may not include the commission of a violent act. In estimating the number of incidents of violence in Questions 6, 9, and 10, you may use what ever local record keeping is available to you.

II. How can the State of Montana help?

If, in your judgement, you do not need help from the state in a given area, make sure you fill in the circle in the "no need" column.

Please return the surveys by February 3, 1998.

Thank you very much for taking the time to complete this survey.

1. Please identify whether your school is:

o 9 - 12
o K - 12
o 7 - 12
o other (please specify)_____

2. What was your school's student enrollment as of October 1, 1996?_____.

3. To what extent would you say the overall community environment of your district reflects a need to address each of the following:

	Not at all	Moderate extent	Great extent
racial/ethnic bias	o	o	o
youth gangs	o	o	o
youth cults	o	o	o
drug dealing	o	o	o
illicit drug use	o	o	o
alcohol abuse	o	o	o
dysfunctional families	o	o	o
family stress	o	o	o
sexual violence	o	o	o
poverty	o	o	o
violent crime	o	o	o
student dropout	o	o	o
unemployment	o	o	o
student viol. in community	o	o	o

II. Extent and Nature of School Violence
4. Would you say that "bullying" in your school is:
O a serious problem
O somewhat of a problem
O not a problem
5. Overall, would you say that racial/ethnic conflict in your schools has, over the last five years:
O lessened significantly

O lessened somewhat
O remained about the same
O become somewhat worse
O become significantly worse

6. What would you estimate to be the total number of incidents of violence in your school during the 1996-1997 school year?_____

7. Would you say that violence in your school is now:
O a serious problem
O somewhat of a problem
O not a problem

8. Overall, would you say that the violence problem in your school has, over the last five years:
O lessened significantly
O lessened somewhat
O remained about the same
O become somewhat worse
O become significantly worse

9. Please estimate the number of incidents of violence that occurred in each category below in your district in 1996-1997.
Violence Related Factors

Firearms	
Weapons other than firearms	
drugs (use)	
drugs (dealing)	
racial/ethnic conflict	
gang activity	

Perpetrators and Victims of Violence

suspended or expelled youth	
outsider on student/staff	
student on staff	
student on student	

Number of incidents and location of violence

cafeteria	
classroom	
hallways, corridor, stairwell	
lavatory	
locker room, gymnasium	
bus	
school grounds	
other	

Number of incidents of violence at after-school events

school dances	
scholastic sports events	
other after-school events	
number of incidents that lead to injury requiring medical attention?	

III. Efforts to Control and Prevent Violence

10. When violence occurs, how frequently do you take the following actions (not considering very minor incidents)?

	not at all	seldom	frequently	always
notify parents/guardian	O	O	O	O
notify police	O	O	O	O
in-school suspension	O	O	O	O
after school detention	O	O	O	O
suspend from school	O	O	O	O
expel from school	O	O	O	O

11. Which, if any, of the following does your school use to prevent or control violence? (Fill in all that apply.)

1. Prevention programs

O conflict resolution
O anger management
O mentoring
O law-related education
O problems solving/decision making skills
O police officer visits to school
O character and values education
O prejudice education
O theater/arts
O other (specify)_____

2. Intervention Strategies

O peer mediation
O other dispute mediation
O in-school suspension education
O alternative education
O human relations group
O parent/community involvement
O social service agencies
O pupil personnel services
O other (specify)_____

3. Policy Strategies
consistent emphasis on:
    O code of conduct
    O behavior expectations

O memoranda of agreement with law enforcement

O other (specify)_____

12. Which types of prevention, intervention and policy efforts seem to work best in your school? Fill in up to three choices for prevention programs and intervention strategies and one for policy strategies.

- ⭘ Conflict resolution
- ⭘ anger management
- ⭘ mentoring
- ⭘ law-related education
- ⭘ problem solving/decision making skills
- ⭘ police officer visits to school
- ⭘ character and values education
- ⭘ prejudice education
- ⭘ theater/arts
- ⭘ other (specify)_____

Intervention Strategies

- ⭘ peer mediation
- ⭘ other dispute mediation
- ⭘ in-school suspension education
- ⭘ alternative education
- ⭘ human relations group
- ⭘ parent/community involvement
- ⭘ social service agencies
- ⭘ pupil personnel services
- ⭘ other (specify)_____

Policy Strategies

consistent emphasis on
-     ⭘ code of conduct
-     ⭘ behavior expectations
- ⭘ memoranda of agreement with law enforcement
- ⭘ other (specify)_____

How can the State of Montana help?

_____
_____
_____
_____

13. What would you say is the level of your school need for each of the following to help control and/or prevent violence?

- ⭘ Information on model prevent/intervention programs

- ⭘ information on model programs in disciplinary other responses to violence

- ⭘ information on how to create a comprehensive approach to violence

- ⭘ information on how to improve security

- ⭘ relevant training for school personnel

- ⭘ provision of technical assistance by outside experts resource directory of Montana programs

- ⭘ information on promoting a positive school climate

- ⭘ access to available community resources

Other comments:_____

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Did your school participate in the 1997 Montana Youth Risk Behavior Survey? Yes ○ No ○

Will you authorize the release of your school-specific YRBS data in a comparative study of youth risk and school-sponsored prevention programs? (Note: individual school names will not be included in the study's findings. All original data released for the study will be returned to OPI.)

Yes   ○   No   ○

If YES, provide the following information:

_____
signature

_____
Printed name

_____
Title

_____
school name and location

Please return completed surveys by February 3, 1998 to: John Frederikson, Big Sky High School, 3100 South Ave. West, Missoula, MT 59804

APPENDIX C

Letter of Agreement

This letter of agreement, between the Montana Office of Public Instruction's Health Enhancement and Safety Division (represented by Richard Chiotti) and John Frederikson, Doctoral Candidate in the Department of Educational Leadership and Counseling from the University of Montana-Missoula, concerns the use of school-specific Montana Youth Risk Behavior Survey information in the doctoral study of John Frederikson.

The following items are mutually agreed upon, as indicated by the signatures below:

John Frederikson agrees to:
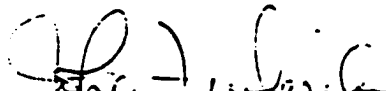
1) include two items (provided by OPI) in his survey of school principals which will:
   - determine whether or not the school participated in the 1997 MYRBS, and
   - obtain district permission for OPI to release school-specific MYRBS information for purposes of the study;

2) provide a copy of the signed authorized release of data for each school or district that so authorizes release of their school-specific data;

3) be responsible for any payment to Dodge Data Systems related to providing the school-specific data requested or related to computerizing a relationship between the YRBS data and the data from Mr. Frederikson's survey of principals and data from the Montana High School Association;

4) not identify any school or use isolated student information and that only aggregate data will be used in the study and its outcome report;

5) return to the OPI any data (electronic or hard copy) provided by the OPI for purposes of this dissertation study; and

6) assure that no copy of the YRBS materials provided by the OPI will be retained by the University of Montana or by John Frederikson.

The OPI agrees to:

1) release school-specific 1997 MYRBS information to John Frederikson for use in his doctoral dissertation, and to have OPI's survey contractor (Dodge Data Systems) assist John Frederikson to associate YRBS data with data from Mr. Frederikson's survey of principals and data from the Montana High School Association.

As representatives of the parties to this letter of agreement, we agree to the terms of the letter of agreement.

_____
Richard Chiotti, OPI

_____
John Frederikson, UM

s:\RICK\YRBS\SP-STUDY.l

OFFICE OF PUBLIC INSTRUCTION

STATE CAPITOL
PO Box 202501
HELENA MT 59620-2501
(406) 444-3095

Nancy Keenan
Superintendent

April 22, 1997

John Frederikson
4319 West Central
Missoula, Montana   59804

Dear Mr. Frederikson:

Enclosed are three copies of the letter of agreement regarding access to the 1997 Youth Risk Behavior Survey data for use in your comparative study of youth risk and prevention programs. Please sign all three copies, keep one for your records, and return the other two copies to me.

Also enclosed are the two questions that should be added to your survey of school principals in order to solicit their authorization for OPI to release their school-specific data to you.

Sincerely,

Richard Chiotti
Health Education Specialist

Enclosures

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"It is our mission to advocate, communicate, educate and be accountable to those we serve."

Additional question for *JFrederikson's* survey of school principals:

Yes   No
☐   ☐   Did your school participate in the 1997 Montana Youth Risk Behavior Survey (YRBS)?
(If YES, please answer the following question.)

Yes   No
☐   ☐   Will you authorize the release of your school-specific YRBS data in a comparative study of youth risk and school-sponsored prevention programs? (Note: Individual school names will not be included in the study's findings. All original data released for the study will be returned to OPI.)

If YES, provide the following information:

_____
Signature

_____
Print your name

_____
Title

H:\RICK\YRBS\SP-STUDY.ADO

OFFICE OF PUBLIC INSTRUCTION
PO Box 202501
HELENA MT 59620-2501
(406) 444-3095

Nancy Keenan
Superintendent

To: Conditional Use Agreement Users of YRBS Data

From: Rick Chiotti
             Health Education Specialist

Re: Disclaimer on Use of YRBS Data

Special studies that rely, in part or in total, on the Montana Youth Risk Behavior Survey (YRBS) data base (which contains "raw" data, i.e., data without a weighting factor) must include a disclaimer statement in any report produced through the study. If the report has not used the weighting factor for the data or if the data used were not inclusive of all schools in the random sample data set, then the following disclaimer statement is to be used:

> *Montana Youth Risk Behavior Survey (YRBS) data have been weighted to allow for generalization of results to all 9-12 grade students in Montana. Use of these data without weighting disrupts the generalization of results. The data used in this study were not weighted and represent only those students who participated in the survey. Inferences should not be made to any non-participating students. Confidence intervals cannot be applied to unweighted data.*

If the special study does, in fact, include the weighting factor in its use of YRBS data and does include all schools in the random sample data set, then the following statement is to be used:
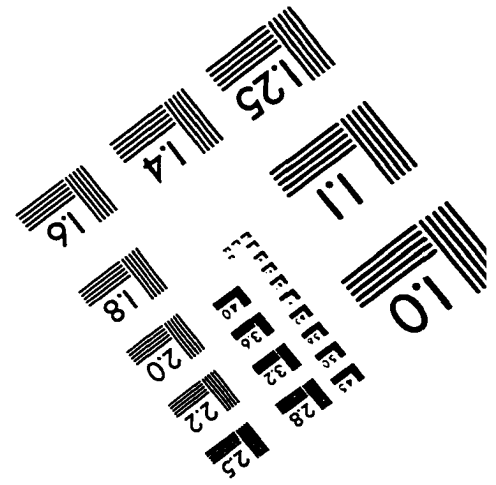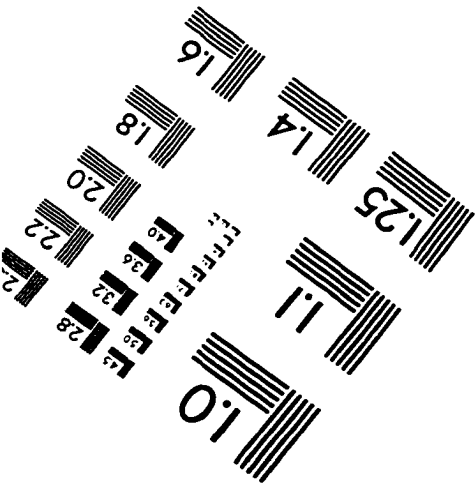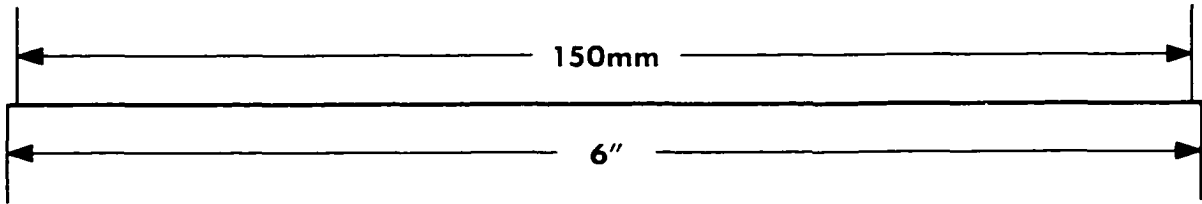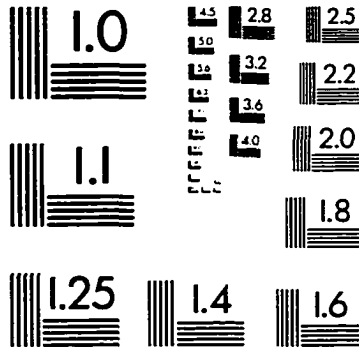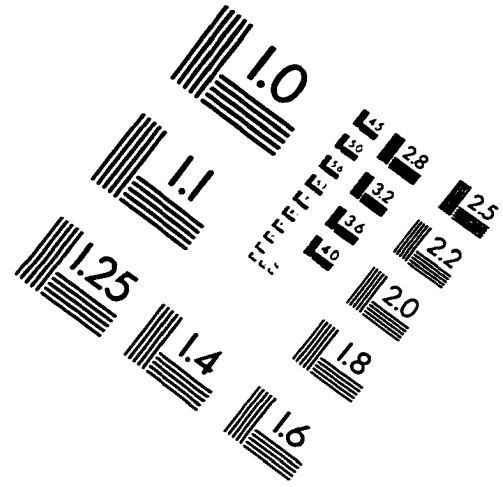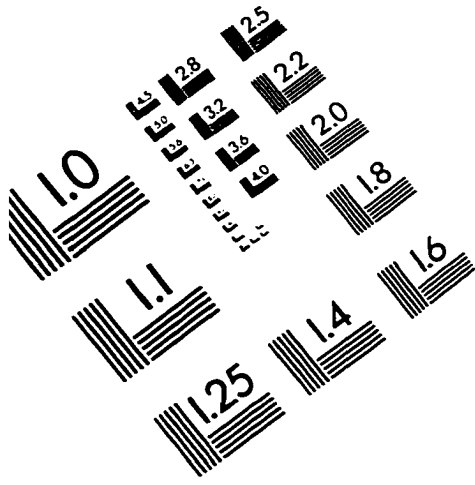
> *Montana Youth Risk Behavior Survey (YRBS) data have been weighted to allow for generalization of results to all 9-12 grade students in Montana. The data used in this study was weighted. Inferences can be made to all 9-12 grade students.*

The **Conditional Use Agreement** signed by users of Montana YRBS data requires that any report, article or other type of information release which includes Montana YRBS data is to be reviewed and approved by the Office of Public Instruction (OPI). This review will determine whether weighted or unweighted data were used. Based on this determination, the appropriate disclaimer statement will need to be included in the report before final authorization to use Montana YRBS data in the report can be given.

h:\rick\yrbs\disclaim

"It is our mission to advocate, communicate, educate and be accountable to those we serve."

IMAGE EVALUATION
TEST TARGET (QA-3)