

Positive Youth Development In the United States:

**Research Findings on
Evaluations of Positive
Youth Development Programs**

**Social Development Research Group
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**U.S. Department of Health and Human Services
Office of the Assistant Secretary for Planning and Evaluation
National Institute for Child Health and Human Development**

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by

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PREFACE

The Positive Youth Development Project

In September, 1996, the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (ASPE) through the National Institute of Child Health and Human Development (NICHD), awarded a grant to the Social Development Research Group (SDRG) at the University of Washington, to examine existing evaluations of positive youth development programs and to summarize the state of the field. The specific goals of the project were:

- to document and describe why a “shift in approach” has been called for which highlights characteristics of positive youth development;
- to document and describe the commonality between risk and protective factors linked to problem behaviors in youth;
- to research and establish both theoretical and empirical definitions of positive youth development and associated concepts;
- to identify evaluations of positive youth development interventions, and to examine and summarize what has been learned from these studies;
- to identify elements contributing to both the success and lack of success in positive youth development programs and evaluations;
- to examine ways to better evaluate existing and proposed models.

Advisors to the Project

To design the framework for this review, project staff consulted at length with project officers at DHHS/ASPE, Elisa Koff and Sonia Chessen, and Susan Newcomer at NICHD, as well as the project’s advisory board whose members are C. Hendricks Brown, Debra Delgado, Joy Dryfoos, Darnell Hawkins, Doug Kirby, Spero Manson, Inca Mohamed, Jane Quinn, and Roger Weissberg. Project staff, project officers, and the advisory board reached consensus on the defining constructs of positive youth development and on a set of criteria for inclusion of programs. These criteria ultimately determined the programs included in this report.

We are grateful to the advisors and project officers who contributed to this effort to define and evaluate the current state of the field of positive youth development.

Structure of the Report

The report is presented in four chapters. Chapter One reviews the origins of the positive youth development approach, links this approach to developments in prevention science, and documents why an emphasis on promoting positive youth development has emerged in recent years.

Chapter Two presents operational definitions of positive youth development, describes the standards used for selecting program evaluations, and discusses the framework used to analyze them.

Chapter Three describes the findings from evaluations of positive youth development programs. The chapter highlights 25 well-evaluated programs and their results. Elements of the programs are described, including positive youth development constructs, social domains, and strategies. Elements of the evaluations are also described, including evaluation design, sample characteristics, and methods.

Chapter Four summarizes the findings from Chapter Three and discusses challenges and future directions for the field of positive youth development.

EXECUTIVE SUMMARY

CHAPTER ONE:

ORIGINS OF

THE

POSITIVE YOUTH

DEVELOPMENT

(PYD) FIELD

CHAPTER ONE: ORIGINS OF THE POSITIVE YOUTH DEVELOPMENT (PYD) FIELD

Introduction

This project was initiated, in part, to describe why a “shift in approach” has been advocated for how we address youth issues in this country. This chapter examines the ways in which differing points of view have converged to form the field of positive youth development.

With the twentieth century’s “discovery” of childhood and adolescence as special periods in which children should be given support to learn and develop, American society assumed an increased sense of responsibility for the care of its young people. Increases in juvenile crime and concerns about troubled youth led in the 1950s to the beginning of major federal funding initiatives to address these issues. These trends accelerated during the 1960s, as did national rates of poverty, divorce, out-of-wedlock births, family mobility, and single parenthood.

Changes in socialization forces that have historically nurtured the development of children – especially in the family – necessitate reconceptualization of school and community practices to support the family in its mission to raise successful children (Hernandez, 1995, from Weissberg & Greenberg, 1997: 5).

At first, interventions to support families and children were primarily responses to existing crises. Their focus was on reducing juvenile crime, or transforming poor character in youth. As the nation watched youth problems become more prevalent, intervention and treatment for a wide range of specific problems were developed. In the last three decades, both services and policies designed to reduce the problem behaviors of troubled youth have expanded. The effectiveness of these approaches has been extensively examined in a variety of research studies on substance abuse, conduct disorders, delinquent and antisocial behavior, academic failure, and teenage pregnancy (cf. Agee, 1979; Clarke & Cornish, 1978; Cooper, Altman, Brown & Czechowicz, 1983; De Leon & Ziengenfuss, 1986; Friedman & Beschner, 1985; Gold & Mann, 1984).

Prevention approaches began to emerge two decades ago, with an emphasis on supporting youth *before* problem behaviors occurred. Increasingly, investigators and practitioners in the field sought to address the *circumstances* (families, schools, communities, peer groups) of children’s lives. Often based on earlier treatment efforts, most prevention programs initially focused on the prevention of a single problem behavior.

The prevention field has undergone its own evolution during this time. Many early prevention programs were not based on theory and research on child development or the factors influencing it. Prevention strategies changed as programs were evaluated, particularly as some approaches failed to show positive impact on youth drug use, pregnancy, sexually transmitted disease, school failure, or delinquent behavior (cf.

Ennett, Tobler, Ringwalt & Flewelling, 1994; Kirby, Harvey, Claussenius & Novar, 1989; Malvin, Moskowitz, Schaeffer & Schaps, 1984; Snow, Gilchrist & Schinke, 1985; Thomas, Mitchell, Devlin, Goldsmith, Singer & Watters, 1992; Mitchell, et al., 1997).

A key turning point in the field occurred as investigators and service providers began incorporating information from longitudinal studies that identified important *predictors* of problem behaviors in youth. A second generation of prevention efforts sought to use this information on predictors to interrupt the processes leading to specific problem behaviors. For example, drug abuse prevention programs began to address empirically identified predictors of adolescent drug use, such as peer and social influences to use drugs, and social norms that condone or promote such behaviors (cf. Ellickson & Bell, 1990; Flay et al., 1988; Pentz et al., 1989a, b). These prevention efforts were often guided by theories about how people make decisions, such as the Theory of Reasoned Action (Morrison, Simpson, Gillmore, Wells & Hoppe, 1994; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and the Health Belief Model (Janz & Becker, 1984; Rosenstock, Strecher & Becker, 1988). As Kirby (1997:12) noted,

In 1991, proponents of (these) leading theories of behavioral change assembled at the National Institute of Mental Health to attempt to reach agreement on the important factors influencing behavior and behavior change, particularly health behavior (Fishbein et al., 1991). They succeeded in reaching some consensus on these issues. They agreed that there are three factors that most strongly influence health-related behaviors: (1) the person's intention to engage in the behavior, (2) the lack of any environmental constraints that might prevent the behavior or the existence of any environmental resources needed to complete the behavior, and (3) the individual's skills (or ability to engage in the behavior).

In the 1980s, prevention efforts that focused only on a single problem behavior came under increasing criticism. The dominant prevention models were urged to examine the co-occurrence of problem behaviors within a single child, and the common predictors of multiple problem behaviors. Investigators were also encouraged to incorporate valuable knowledge about environmental predictors and interactions between the individual and the environment. Further, many advocated a focus on factors that promote positive youth development, in addition to focusing on problem prevention. Such concerns, expressed by both prevention practitioners and prevention scientists, helped expand the design of prevention programs to include components aimed at promoting positive youth development, and the factors that influence it. Consensus began to develop that a successful transition to adulthood requires more than avoiding drugs, violence, or precocious sexual activity. The promotion of children's social, emotional, behavioral, and cognitive development began to be seen as key to preventing problem behaviors themselves (W.T. Grant Consortium on the School-Based Promotion of Social Competence, 1992).

In the 1990s, practitioners, policy makers, and prevention scientists adopted a broader focus for addressing youth issues (Pittman, et al. 1993). There is a growing body of research on the developmental etiology of problem and positive behaviors (Kellam & Rebok, 1992; Hawkins, Catalano & Miller, 1992; Newcomb et al., 1986), and

comprehensive outcome reports from rigorous randomized and non-randomized controlled trials of positive youth development programs (e.g., Greenberg, 1996; Greenberg & Kusche, 1997; Weissberg & Caplan, 1998; Hahn, Leavitt & Aaron, 1994). Two parallel currents of work in the 1990s are now converging: positive youth development and prevention science. It is useful to understand the contributions of each.

Practitioner, Policy, and Prevention Science Perspectives

Practitioner and Policy Perspectives

Advocates of the Positive Youth Development Approach

A number of organizations have articulated the benefits of a comprehensive approach to positive youth development approach that incorporates social and other influential factors, including the Carnegie Council on Adolescent Development (1995), the U.S. Department of Health and Human Services (1996), the Annie E. Casey Foundation (1995), the Robert Wood Johnson Foundation (1997), the Consortium on the School Based Promotion of Social Competence (1994), and the Office of Juvenile Justice and Delinquency Prevention (1995).

Today's youth live and develop in a society that offers tremendous choices and challenges during the formative period of adolescence. The adolescent's environment is shaped profoundly by the presence or absence of many different factors, including family resources, community services, and educational and employment opportunities. In the past few decades, a body of social and behavioral research has emerged that seeks to explain why some adolescents successfully navigate their social settings, while others who are similarly situated adopt "risky" lifestyles characterized by drug use, unprotected sexual behavior, dropping out of school, delinquency, gang membership, and violence. During the same period, community leaders have experimented with a wide variety of approaches designed to improve the quality of life for all community residents, including the creation of social settings that are supportive of youth -- school, recreation centers, job training programs, and others (1996: vii). An emphasis on social settings compels service providers to move beyond a perspective that focuses on the deficits of today's youth (such as delinquency, drug use, teenage pregnancy, and violence) and to examine the density and quality of social interactions as well as demographic features and economic measures in assessing a community's resources. The emphasis on social context has stimulated a new agenda for program development and evaluation, one that stresses the importance of knowing how, when, and where adolescents interact with their families, peers, and unrelated adults in settings such as home, employment, recreation and education.... Finally, the research on social settings has highlighted the need to integrate the youth development research literature with other research on community development and community organization (in the fields of economics, urban studies, anthropology, and sociology, for example) so that knowledge can inform efforts to build communities that are supportive and protective of their

youth and families (The National Academy of Sciences, National Research Council, 1996: 4).

Arguments have been made for an integrated positive youth development focus over a focus on preventing a single problem behavior when working with youth. These are reviewed below.

Concern About Preventing Problems Rather than Promoting Development

An understanding that “problem-free is not fully prepared” (Pittman, 1991), is fundamental to positive youth development:

For years, Americans have accepted the notion that – with the exception of education – services for youth, particularly publicly funded services, exist to address youth problems. We have assumed that positive youth development occurs naturally in the absence of youth problems. Such thinking has created an assortment of youth services focused on “fixing” adolescents engaged in risky behaviors or preventing other youth from “getting into trouble.” Preventing high risk behaviors, however, is not the same as preparation for the future. Indeed, an adolescent who attends school, obeys laws, and avoids drugs, is not necessarily equipped to meet the difficult demands of adulthood. Problem-free does not mean fully prepared. There must be an equal commitment to helping young people understand life’s challenges and responsibilities and to developing the necessary skills to succeed as adults. What is needed is a massive conceptual shift – from thinking that youth problems are merely the principal barrier to youth development to thinking that youth development serves as the most effective strategy for the prevention of youth problems (Pittman & Fleming, 1991:3).

The Person-in-Environment Perspective

The person-in-environment perspective (Bronfenbrenner, 1979) suggests that the socializing influences of caregivers, school officials, classmates, and neighborhood residents are primary to child development, along with the standards and values of the youth’s cultural group and community. Advocates for positive youth development urge attention to the interaction of the environment and the individual. Attention to cultural factors in different ethnic communities is often emphasized as key to positive youth outcomes (Deyhle, 1995; Boykins & Toms, 1985).

Developmental Models of How Youth Grow, Learn, and Change

Developmental theories that identify important developmental tasks, challenges and milestones, and the competencies required to meet them during infancy, childhood and adolescence, provide the foundations for positive youth development approaches.

Attachment theory describes the essential bond between child and caregiver and how this bond serves as a secure base for the child’s exploration. This bonding lays the foundation for healthy processes of emotional self-regulation, skill building, and for the development of social, emotional, cognitive, behavioral, and moral competence

(Ainsworth, Behar, Water & Wall, 1978; Ainsworth, 1969; Bowlby, 1969, 1973, 1979, 1982; Mahler, Pine & Bergman, 1975).

Erikson's identity development theory (1950, 1968) emphasizes the dynamic, progressive organization of the child's drives, abilities, beliefs, and individual history leading to the development of the internal self structure known as identity. The cohesive development of a sense of identity progresses as the child grows. Identity development in adolescence depends to a great extent on the stability of identity achieved in earlier stages. Positive coping in adolescence is based on successful achievement of tasks in the "industry" stage of preadolescence. It is at this stage that a youth learns to feel competent, effective, and capable of mastering age-appropriate tasks. The successful outcome of this period is the acquisition of specific skills and patterns linked to the youth's sense of competence. Underachievement in preadolescence is likely to result in social and emotional vulnerability during adolescence. Disruption of secure identity development produces a child unable to make healthy choices based on positive internal values and standards. In short, the unsuccessful completion of developmental tasks is a primary source of behavioral problems, according to Erikson. From this perspective, positive youth development holds the key to both promoting strengths and preventing problems in youth.

The perspectives reviewed above have led to the call for a greater focus on positive outcomes for youth, on developmentally-based strategies, and on attention to the role of families, schools, and communities in promoting positive youth development. From this base, positive youth development approaches seek to promote healthy development to foster positive youth outcomes; focus "non-categorically" on the whole child; focus on the achievement of developmental tasks; and focus on interactions with family, school, neighborhood, societal, and cultural contexts.

Prevention Science Perspectives

Prevention Science and Positive Youth Development

In the 1970s and early 1980s, most prevention programs limited their focus to individual level risk or protective factors, and generally addressed only one or two predictors. Tolan & Guerra, (1994: 10), in their review of violence prevention programs, found that: "...Most interventions tend to focus on changing one promising risk factor, and most emphasize changing only individual (and not social or environmental) characteristics." In reviewing pregnancy prevention programs, Kirby (1997) reported similar findings.

Yet, longitudinal studies conducted over the past 30 years identified many factors in neighborhoods, families, schools, and peer groups as well as within the individual (Brewer, Hawkins, Catalano & Neckerman, 1995; Coie, et al., 1993; Dryfoos, 1990; Hawkins, Catalano & Miller, 1992; Farrington, 1996; Loeber, 1990) that predicted problem behaviors. Exposure to increasing numbers of risk factors was found to increase the likelihood of a child's problem behaviors, while exposure to increasing numbers of protective factors was found to prevent problem behaviors in spite of risk exposure (Hawkins, Catalano & Miller, 1992; IOM, 1994; Newcomb, Maddahian, Skager &

Bentler, 1987; Pollard, Hawkins, & Arthur, 1998; Rutter 1987a,b; Sameroff & Seifer, 1990).

Moreover, research showed that many of the same risk and protective factors predict diverse adolescent problems, including substance abuse, delinquency, violence, teenage pregnancy and school dropout (Dryfoos, 1990; Hawkins, Jenson, Catalano & Lishner, 1988; Howell, Krisberg, Hawkins & Wilson, 1995; IOM, 1994; Loeber, Stouthamer-Loeber, Van Kammen & Farrington, 1991; Slavin, 1991), that problem behaviors are correlated with one another (Elliott, Huizinga & Menard, 1989; Jessor & Jessor, 1977; Zabin, Hardy, Smith & Hirsch, 1986), and typically cluster within the same individuals and reinforce each other (Benson, 1990; Dryfoos, 1990; Jessor, Donovan & Costa, 1991). These findings suggested the need for more comprehensive or "non-categorical" approaches for preventing a broad range of youth problems (e.g., Catalano & Hawkins, 1996; Dryfoos, 1996, 1994, 1990; Hawkins, Catalano & Miller, 1992; Kirby, 1997; Moore, Sugland, Blumenthal, Glei & Snyder, 1995; Perry, Kelder & Komro, 1993; The National Academy of Sciences, National Research Council, 1996, 1993; Weissberg & Greenberg, 1997). Like youth development practitioners, prevention scientists became increasingly dissatisfied with a single-problem approach to prevention.

Developmental Perspective

Prevention research also showed that different risk and protective factors are salient at different stages of a child's development (Bell, 1986). For example, while aggressive behavior from the early elementary grades appears to be a stable predictor of teenage drug abuse, poor achievement stabilizes as a predictor of drug abuse only in later elementary grades (Kellam & Brown, 1982). Prevention scientists began to emphasize the importance of attending to developmental theory and research in designing prevention programs. Information on developmentally and environmentally relevant task demands (Kellam & Rebok, 1992), as well as on specific developmental processes (Catalano & Hawkins, 1996) was incorporated to make preventive interventions appropriate to the youth's developmental stage and challenges.

There is a growing emphasis on the integration of developmental theory with models from public health, epidemiology, social work, sociology and developmental psychopathology in conceptualizing, designing and implementing preventive interventions (Cicchetti & Cohen, 1995; Cicchetti, 1984; Kellam & Rebok, 1992; Lorion, 1990; Sameroff, 1990; Sroufe & Rutter, 1984). As concepts in development have broadened to include ecological analysis (Belsky, 1993; Bronfenbrenner, 1979, 1995; Garbarino, 1992) and multivariate examination of causation and risk (IOM, 1994; Rutter, 1987a & b), developmental theory has become more able to provide a powerful framework for organizing and building the field (Weissberg & Greenberg, 1997: 9).

All these developments led prevention scientists to call for a broader focus in preventive interventions: the identification of important connections between risk and protective factors and youth outcomes; the evidence that problem behaviors share many common antecedents; the evidence that the number of risk and protective factors to which a youth

is exposed strongly affects that youth's likely outcomes; the importance of factoring age-appropriate task demands and processes into prevention program design; and documentation that early initiation of problem behavior is itself a predictor of poor outcomes.

The Convergence of Approaches

Youth development practitioners, the policy community, and prevention scientists have reached the same conclusions about promoting better outcomes for youth. They call for expanding programs beyond a single problem behavior focus, and considering program effects on a range of positive and problem behaviors. Prevention science provides empirical support for this position through substantial evidence that many youth outcomes are affected by the same risk and protective factors. These groups are also calling for interventions that involve several social domains. The evidence that risk and protective factors are found across family, peer, school, and community environments supports this approach. Both positive youth development advocates and prevention scientists now encourage attention to the importance of social and environmental factors that affect youths' accomplishments of the developmental tasks they face. This convergence in thinking has been recognized in forums of researchers, practitioners and government representatives on youth development (e.g., The National Academy of Sciences, National Research Council, 1996).

Current Challenges for Positive Youth Development

The new vision of positive youth development faces at least three challenges.

1. To establish shared definitions of the key constructs of positive youth development.
2. To document the evidence for the effectiveness of programs that use a positive youth development approach.
3. To develop a better understanding of why enhancing positive youth development also prevents problem behaviors.

The first challenge requires operationalizing the concept of positive youth development. Chapter Two addresses that challenge by identifying the fundamental components of positive youth development.

The second challenge is to assemble the evidence for the effectiveness of the positive youth development approach. This is done in Chapter Three.

The third challenge is to investigate why promoting positive youth development is also likely to prevent problem behavior. Practitioners, policy makers, and prevention scientists have advocated that models of healthy development hold the key to both health promotion and prevention of problem behaviors. A sound empirical and theoretical basis for this assumption is needed. We must better understand the mechanisms through which different risk and protective factors influence positive youth development and problem

behavior. Such theoretical and empirical tasks are beyond the scope of this report. While some work has begun in this area (Blechman, Prinz & Dumas, 1995; Catalano & Hawkins, 1996; Cichetti & Cohen, 1995; Kellam & Rebok, 1992; Lorian, 1990; Sameroff, 1990), much remains to be accomplished.

We are finding new evidence that offers an empirical demonstration of why increasing positive youth development outcomes is likely to prevent problem behavior. This evidence demonstrates that the same risk and protective factors that studies have shown predict problem behaviors are also important in predicting positive outcomes. Risk factors increase the likelihood of problem behavior and decrease the likelihood of positive outcomes. Protective factors decrease the likelihood of problem behavior and increase the likelihood of positive outcomes. Given this similar etiological base, it is likely that decreasing risk and increasing protection is likely to affect both problem and positive outcomes.

This chapter closes with the presentation of the association between risk and protective factors in the community, school, family, peer group, and individual, and positive and problem outcomes (see graphs in Appendices A-E). This analysis used survey data from representative samples of over 80,000 students in grades 6-12 across five states (Six State Needs Assessment Consortium, funded by the Center for Substance Abuse Prevention). Measures of risk and protective factors, positive youth development outcomes, and problem behaviors were completed by students, anonymously. The cumulative numbers of risk and protective factors for each child was determined and these are graphically related to problem and positive outcomes. The first three analyses (Appendices A-C) show that as the literature on problem behavior suggests, as exposure to risk factors increase, the prevalence of health and behavior problems such as drug use and crime increase. In addition, protective factors buffered the effects of youth's risk exposure at every level of risk (Appendices D and E). The same risk and protective factors either decreased or increased the prevalence of the positive youth development outcomes of academic and social competence. The common etiology of positive and problem outcomes suggests that programs that address these risk and protective factors are likely to enhance positive outcomes and reduce problem outcomes.

CHAPTER TWO:

DEFINING AND EVALUATING POSITIVE

YOUTH DEVELOPMENT

CHAPTER TWO: DEFINING AND EVALUATING POSITIVE YOUTH DEVELOPMENT

Positive Youth Development Constructs

The first task of this project was to establish operational definitions or criteria for positive youth development. Through a literature review, consultation with project officers, and a consensus meeting of the project advisory board, an operational definition of positive youth development was created. For the purposes of this review, positive youth development programs are approaches that seek to achieve one or more of the following objectives:

1. Promotes bonding
2. Fosters resilience
3. Promotes social competence
4. Promotes emotional competence
5. Promotes cognitive competence
6. Promotes behavioral competence
7. Promotes moral competence
8. Fosters self-determination
9. Fosters spirituality
10. Fosters self-efficacy
11. Fosters clear and positive identity
12. Fosters belief in the future
13. Provides recognition for positive behavior
14. Provides opportunities for prosocial involvement
15. Fosters prosocial norms.

These defining objectives of the positive youth development approach are described below.

Promotes Bonding

Bonding is the emotional attachment and commitment a child makes to social relationships in the family, peer group, school, community, or culture. Child development studies frequently describe bonding and attachment processes as internal working models for how a child forms social connections with others (Ainsworth, et al. 1978; Bowlby, 1982, 1979, 1973; Mahler et al., 1975). The interactions between a child and a child's caregivers build the foundation for bonding which is key to the development of the

child's capacity for motivated behavior. Positive bonding with an adult is crucial to the development of a capacity for adaptive responses to change, and growth into a healthy and functional adult. Good bonding establishes the child's trust in others and in self. Inadequate bonding establishes patterns of insecurity and self-doubt. Very poor bonding establishes a fundamental sense of mistrust in self and others, creating an emotional emptiness that the child may try to fill in other ways, possibly through drugs, impulsive acts, antisocial peer relations, or other problem behaviors (Braucht, Kirby & Berry, 1978; Brook, Brook, Gordon, Whiteman & Cohen, 1990; Brook, Lukoff & Whiteman, 1980; Elliott et al., 1985; Kandel, Kessler & Margulies, 1978).

The importance of bonding reaches far beyond the family. How a child establishes early bonds to caregivers will directly affect the manner in which the child later bonds to peers, school, the community, and culture(s). The quality of a child's bonds to these other domains are essential aspects of positive development into a healthy adult (Brophy, 1988; Brophy & Good, 1986; Dolan, Kellam & Brown, 1989; Hawkins, Catalano & Miller, 1992). Strategies to promote positive bonding combined with the development of skills have proven to be an effective intervention for adolescents at risk for antisocial behavior (Dryfoos, 1990; Caplan, Weissberg, Grober, Sivo, Grady & Jacoby, 1992).

Operational Definition. For this review, a program was classified as promoting bonding if one or more of its components focused on developing the child's relationship with a healthy adult, positive peers, school, community, or culture.

Fosters Resilience

Resilience is an individual's capacity for adapting to change and stressful events in healthy and flexible ways. Resilience has been identified in research studies as a characteristic of youth who, when exposed to multiple risk factors, show successful responses to challenge, and use this learning to achieve successful outcomes (Rutter, 1985; Hawkins et al., 1992; Masten, Best & Garmezy, 1990; Werner, 1995, 1989). The National Academy of Sciences, National Research Council (1996: 4) defined resilience as "patterns that protect children from adopting problem behaviors in the face of risk." Rutter (1987a; 1985) described protective mechanisms associated with four main processes of resilience, including reduction of risk impact, reduction of negative behavior patterns, the establishment and maintenance of self esteem and self-efficacy, and the opening up of opportunities. Thornberry, Huizinga and Loeber (1995) suggested that resilience involves adaptive responses to such environmental stressors as changes in family or community circumstances.

Operational Definition. Programs were classified as fostering resilience if they emphasized strategies for adaptive coping responses to change and stress, and promoted psychological flexibility and capacity.

Promotes Competencies

The positive youth development construct of competence covers five areas of youth functioning, including social, emotional, cognitive, behavioral, and moral competencies.

Programs are defined as promoting competence if they focus on building specific skills in these areas.

The multiple dimensions of competence began to be recognized in the past two decades (Gardner, 1993; Zigler & Berman, 1983). More recently, Weissberg & Greenberg (1997) urged that competence should be viewed and measured in research studies as a developmental outcome. While the enhancement of competence can help to prevent other negative outcomes (Botvin et al., 1995), competence can be specified and measured as an important outcome itself, indicative of positive development.

In recent years, many competence promotion efforts have sought to develop skills to integrate feelings (emotional competence) with thinking (cognitive competence) and actions (behavioral competence), in order to help the child achieve specific goals.

Social Competence. Social competence is the range of interpersonal skills that help youth integrate feelings, thinking, and actions in order to achieve specific social and interpersonal goals (Caplan et al., 1992; Weissberg, Caplan & Sivo, 1989). These skills include encoding relevant social cues; accurately interpreting those social cues; generating effective solutions to interpersonal problems; realistically anticipating consequences and potential obstacles to one's actions; and translating social decisions into effective behavior (Elias et al., 1994).

The benefits of social competence promotion programs were described by Caplan, et al., (1992:56):

Kornberg & Caplan (1980), who reviewed 650 papers on biopsychosocial risk factors and preventive interventions, concluded that competence training to promote adaptive behavior and mental health is one of the most significant developments in recent primary prevention research. In general, social competence promotion programs were designed to enhance personal and interpersonal effectiveness, and to prevent the development of maladaptive behavior through (a) teaching students developmentally appropriate skills and information, (b) fostering prosocial and health-enhancing values and beliefs, and (c) creating environmental supports to reinforce the real-life application of skills (Weissberg, Caplan & Sivo, 1989). Some researchers hypothesized that teaching students a general set of competencies that can be broadly applied to cope with diverse stressors is sufficient to prevent specific problem behaviors (e.g., Spivack & Shure, 1982). Recent research, however, indicates that skills are not automatically and consistently applied to every social task encountered (Caplan, Bennetto & Weissberg, 1991; Dodge, Pettit, McClaskey & Brown, 1986). To produce meaningful effects on specific target behaviors, it also appears necessary to include opportunities in SCP programs for students to practice and apply learned skills to specific, relevant social tasks (Hawkins & Weis, 1985). The combination of general social skills training with domain-specific instruction may be the most effective way to prevent particular psychosocial problems (Durlak, 1980).

Operational Definition. Programs were classified as promoting social competence if they provided training in developmentally appropriate interpersonal skills, and rehearsal strategies for practicing these skills. These skills included communication, assertiveness, refusal and resistance, conflict-resolution, and interpersonal negotiation strategies for use with peers and adults.

Emotional Competence. Emotional competence is the ability to identify and respond to feelings and emotional reactions in oneself and others. Salovey and Mayer (1990) identified five elements of emotional competence, including knowing one's emotions, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships. The W.T. Grant Consortium on the School-Based Promotion of Social Competence (1992: 136), provided a list of emotional skills that are ingredients of many prevention programs: "Identifying and labeling feelings, expressing feelings, assessing the intensity of feelings, managing feelings, delaying gratification, controlling impulses, and reducing stress." Goleman (1995) proposed empathy and hope as components of emotional intelligence.

Operational Definition. Programs were classified as promoting emotional competence if they sought to develop youth skills for identifying feelings in self or others, skills for managing emotional reactions or impulses, or skills for building the youth's self-management strategies, empathy, self-soothing, or frustration tolerance.

Cognitive Competence. Cognitive competence includes two overlapping but distinct sub-constructs. The W.T. Grant Consortium on the School-Based Promotion of Social Competence (1992: 136) defined the first form of cognitive competence as the "ability to develop and apply the cognitive skills of self-talk, the reading and interpretation of social cues, using steps for problem-solving and decision-making, understanding the perspective of others, understanding behavioral norms, a positive attitude toward life, and self awareness."

The second aspect of cognitive competence is related to academic and intellectual achievement. The emphasis here is on the development of core capacities including the ability to use logic, analytic thinking, and abstract reasoning. Many preventive interventions have focused on promoting this form of cognitive competence to prevent school failure (Berrueta-Clement, Schweinhart, Barnett, Epstein & Weikart, 1984; Horacek, Ramey, Campbell, Hoffman & Fletcher, 1987; Seitz, Rosenbaum & Apfel, 1985), and strengthen commitment to school (Gottfredson, 1988; Johnston, O'Malley & Bachman, 1985), because low academic achievement is a risk factor for many negative youth outcomes including substance abuse (Holmberg, 1985; Jessor, 1976; Robins, 1980) and violence (Tolan & Guerra, 1994).

Operational Definition. A program was classified as promoting cognitive competence if it sought to influence a child's cognitive abilities, processes, or outcomes, including academic performance, logical and analytic thinking, problem-solving, decision-making, planning, goal-setting, and self-talk skills.

Behavioral Competence. Behavioral competence refers to effective action. The W.T. Grant Consortium on the School-Based Promotion of Social Competence (1992: 136), identified three dimensions of behavioral competence: “Nonverbal communication (through facial expressions, tone of voice, style of dress, gesture or eye contact), verbal communication (making clear requests, responding effectively to criticism, expressing feelings clearly), and taking action (helping others, walking away from negative situations, participating in positive activities).”

Operational Definition. Programs were classified as promoting behavioral competence if they taught skills and provided reinforcement for effective behavior choices and action patterns, including nonverbal and verbal strategies.

Moral Competence. Moral competence is a youth’s ability to assess and respond to the ethical, affective, or social justice dimensions of a situation. Piaget (1952, 1965) described moral maturity as both a respect for rules and a sense of social justice. Kohlberg (1963, 1969, 1981) defined moral development as a multi-stage process through which children acquire society’s standards of right and wrong, focusing on choices made in facing moral dilemmas. Hoffman (1981) said that the roots of morality are in empathy, or empathic arousal, which has a neurological basis and can be either fostered or suppressed by environmental influences. He also asserted that empathic arousal eventually becomes an important mediator of altruism, a quality that many youth interventions try to promote in young people.

Operational Definition. A program was classified as promoting moral competence if it sought to promote empathy, respect for cultural or societal rules and standards, a sense of right and wrong, or a sense of moral or social justice.

Fosters Self-Determination

Self-determination is the ability to think for oneself, and to take action consistent with that thought. Fetterman et al. (1996) defined self-determination as the ability to chart one’s own course. Much of the literature on self-determination has emerged from work with disabled youth (Brotherson et al., 1995; Field, 1996; Sands & Doll, 1996; Wehmeyer, 1996) and from cultural identity work with ethnic and minority populations (Snyder & Zoann, 1994; Swisher, 1996). While some writers expressed concern that self-determination may emphasize individual development at the expense of group-oriented values (Ewalt & Mokuau, 1995), others linked self-determination to innate psychological needs for competence, autonomy, and relatedness (Deci & Ryan, 1994).

Operational Definition. Programs were classified as promoting self-determination if their strategies sought to increase youths’ capacity for empowerment, autonomy, independent thinking, or self-advocacy, or their ability to live and grow by self-determined internal standards and values (may or may not include group values).

Fosters Spirituality

A search of the literature across the various disciplines associated with positive youth development did not produce a definition of spirituality appropriate to this review. To

capture components of either religiosity or non-traditional forms of applied spiritual practice, spirituality is defined here as “relating to, consisting of, or having the nature of spirit; concerned with or affecting the soul; of, from, or relating to God; of or belonging to a church or religion” (Webster’s New College Dictionary, 1995). The construct of spirituality has been associated in some research with the development of a youth’s moral reasoning, moral commitment, or a belief in the moral order (Hirschi, 1969; Stark & Bainbridge, 1997). Recent reviews of the relationship between religiosity and adolescent well-being found that religiosity was positively associated with prosocial values and behavior, and negatively related to suicide ideation and attempts, substance abuse, premature sexual involvement, and delinquency (Benson, 1992; Benson, Donahue & Erickson, 1990; Donahue & Benson, 1995). Several authors (Meyer & Lausell, 1996) recently argued for the value of including a “higher power” in violence prevention efforts, asserting that promoting an adolescent’s understanding of his or her spiritual belief system will positively contribute to other aspects of the young person’s development. Another author suggested that because adolescence is inherently a developmental stage characterized by the search for meaning, spiritual exploration should be supported through assisting youth in finding appropriate reading materials to address their questions (Mendt, 1996).

Operational Definition. Programs were classified as fostering spirituality if they promoted the development of beliefs in a higher power, internal reflection or meditation, or supported youth in exploring a spiritual belief system, or sense of spiritual identity, meaning, or practice.

Fosters Self-Efficacy

Self-efficacy is the perception that one can achieve desired goals through one’s own action. Bandura (e.g. 1989:1175) stated that “Self-efficacy beliefs function as an important set of proximal determinants of human motivation, affect, and action. They operate on action through motivational, cognitive, and affective intervening processes.” Strategies associated with self-efficacy beliefs include personal goal setting, which is influenced by self-appraisal of one’s capabilities (Bandura, 1993, 1986). Others have documented that the stronger the perceived self-efficacy, the higher the goals people set for themselves and the firmer their commitment to them (Locke, Frederick, Lee & Bobco, 1984). Prevention science studies showed that problem behaviors are mediated by cognitive, emotional, attitudinal, personality, and social factors including poor coping skills, anxiety, need for social approval, favorable attitudes toward use and a lack of self-efficacy (Hawkins, Lishner, Catalano & Howard, 1986; Holden, Moncher, Schinke & Barker, 1990).

Operational Definition. Programs were classified as fostering self-efficacy if their strategies included personal goal-setting, coping and mastery skills, or techniques to change negative self-efficacy expectancies or self-defeating cognitions.

Fosters Clear and Positive Identity

Clear and positive identity is the internal organization of a coherent sense of self. The construct is associated with the theory of identity development emerging from studies of how children establish their identities across different social contexts, cultural groups, and genders. Identity is viewed as a "self-structure," an internal, self-constructed, dynamic organization of drives, abilities, beliefs, and individual history, which is shaped by the child's navigation of normal crises or challenges at each stage of development (Erikson, 1968). Erikson described overlapping yet distinct stages of psychosocial development that influence a child's sense of identity throughout life, but which are especially critical in the first 20 years. If the adolescent or young adult does not achieve a healthy identity, role confusion can result. Developmental theorists assert that successful identity achievement during adolescence depends on the child's successful resolution of earlier stages.

Identity formation is a complex process even under the best circumstances. (Douván & Adelson, 1966; Offer & Offer, 1975; Waterman, 1985). Stages of identity development are linked to gender differences in pre-adolescence and adolescence, revealing a series of identity aspects for girls that are not parallel to those of boys (Gilligan, 1982). Investigations of the positive identity development of gay and bisexual youth have become a focus for some researchers (Johnston & Bell, 1995).

For youth of color, the development of positive identity and its role in healthy psychological functioning is closely linked with the development of ethnic identity (Mendelberg, 1986; Parham & Helms, 1985; Phinney, 1990, 1991; Phinney, Lochner & Murphy, 1990; Plummer, 1995), issues of bicultural identification (Phinney & Devich-Navarro, 1997), and bicultural or cross-cultural competence (LaFromboise, Coleman & Gerton, 1993; LaFromboise & Rowe, 1983). Some have suggested that it is healthy for ethnic minority youth to be consciously socialized to understand the multiple demands and expectations of both the majority and minority culture (Spencer, 1990; Spencer & Markstrom-Adams, 1990). This process may offer psychological protection through providing a sense of identity that captures the strengths of the ethnic culture, and helps buffer experiences of racism and other risk factors (Hill et al., 1994). This may also enhance prosocial bonding to adults who can help youths to counter potential interpersonal violence in their peer groups (Hill et al., 1994; Wilson, 1990).

Several studies have suggested a positive relationship between ethnic identity and social adjustment (Grossman, Wirt & Davids, 1985; Paul & Fisher, 1980; Tzuriel & Klein, 1977). Ethnic identity achievement includes self-identification as a group member, a sense of belonging, and positive attitudes toward one's group (Phinney, 1990).

Operational Definition. Programs were classified as fostering clear and positive identity if they sought to develop healthy identity formation and achievement in youth, including positive identification with a social or cultural sub-group that supports their healthy development of sense of self.

Fosters Belief in the Future

Belief in the future is the internalization of hope and optimism about possible outcomes. This construct is linked to studies on long-range goal setting, belief in higher education, and beliefs that support employment or work values. "Having a future gives a teenager reasons for trying and reasons for valuing his life" (Prothrow-Stith, 1991: 57). Research demonstrates that positive future expectations predict better social and emotional adjustment in school, and a stronger internal locus of control, while acting as a protective factor in reducing the negative effects of high stress on self-rated competence (Wyman, Cowen, Work & Kerley, 1993).

Operational Definition. Programs which sought to influence a child's belief in his or her future potential, goals, options, choices, or long range hopes and plans were classified as promoting belief in the future. Strategies included guaranteed tuition to post-secondary institutions, school-to-work linkages, future employment opportunities, or future financial incentives to encourage continued progress on a prosocial trajectory. Belief in the future could also be fostered by programs designed to influence youth's optimism about a healthy and productive adult life.

Provides Recognition for Positive Behavior

Recognition for positive involvement is the positive response of those in the social environment to desired external behaviors by youths. According to social learning theory, behavior is in large part a consequence of the reinforcement or lack of reinforcement that follows action. Behavior is strengthened through reward (positive reinforcement) and avoidance of punishment (negative reinforcement) or weakened by aversive stimuli (positive punishment) and loss of reward (negative punishment) (Bandura, 1973; Akers et al., 1979). Reinforcement affects an individual's motivation to engage in similar behavior in the future. Social reinforcers have major effects on behavior. These social reinforcers can come from the peer group, family, school, or community (Akers et al., 1979).

Operational Definition. Programs that created response systems for rewarding, recognizing, or reinforcing children's prosocial behaviors were classified as using recognition for positive behavior.

Provides Opportunities for Prosocial Involvement

Opportunity for prosocial involvement is the presentation of events and activities across different social environments that encourage youths to participate in prosocial actions. Providing prosocial opportunities in the non-school hours has been the focus of much discussion and study (Carnegie Council on Adolescent Development, 1992; Pittman, 1991). In order for a child to acquire key interpersonal skills in early development, positive opportunities for interaction and participation must be available (Hawkins et al., 1987; Patterson, Chamberlain & Reid, 1982; Pentz, et al., 1989b). In adolescence, it is especially important that youth have the opportunity for interaction with positively oriented peers and for involvement in roles in which they can make a contribution to the group, whether family, school, neighborhood, peer group, or larger community (Dryfoos, 1990).

Operational Definition. Programs were classified as providing opportunities for prosocial involvement if the intervention offered activities and events in which youths could actively participate, make a positive contribution, and experience positive social exchanges.

Fosters Prosocial Norms

Programs that foster prosocial norms seek to encourage youth to adopt healthy beliefs and clear standards for behavior through a range of approaches. These may include providing youth with data about the small numbers of people their age who use illegal drugs, so that they decide that they do not need to use drugs to be "normal;" encouraging youth to make explicit commitments in the presence of peers or mentors, not to use drugs or to skip school; involving older youth in communicating healthy standards for behavior to younger children; or encouraging youth to identify personal goals and set standards for themselves that will help them achieve these goals (Hawkins et al., 1992; Hawkins, Catalano et al., 1992).

Operational Definition. Programs were classified as fostering prosocial norms if they employed strategies for encouraging youths to develop clear and explicit standards for behavior that minimized health risks and supported prosocial involvement.

Criteria for Program Inclusion

Inclusion Criteria for Reviewing Positive Youth Development Programs

To be included in this review, programs had to meet the following criteria:

1. Address one or more of the positive youth development constructs, defined above.
2. Involve youth between the ages of six and twenty.
3. Involve youth not selected because of their need for treatment. Only programs for children in the general population or children at risk were included. Delinquency, drug abuse, and mental health treatment programs were excluded.
4. Address at least one youth development construct in multiple socialization domains, or address multiple youth development constructs in a single socialization domain, or address multiple youth development constructs in multiple domains. Programs that addressed a single youth development construct in a single socialization domain were excluded from this review.

As a result, this review included only promotion, universal, or selective programs (Gordon, 1983, 1987; Institute of Medicine, 1994). "Universal" indicates that the entire population is included without regard to risk for problems or disorders. "Selective" programs work with youths at significantly higher than average risk for health and behavior problems due to individual, family, school, peer, or other environmental factors, who have not yet developed disorders, symptoms, or problems. Universal and selective programs may include health promotion programs focused on building positive youth

development, prevention programs focused on reducing the initiation of problem behavior, or in many cases, a combination of both promotion and prevention goals.

There is a growing enthusiasm for multi-year, multi-component prevention programs in promoting lasting behavioral improvements (Dryfoos, 1990; Kirby, et al. 1995). Much of the positive youth development literature emphasizes comprehensiveness as an essential characteristic of positive youth development programs. In practice, comprehensive can have several meanings. For programs to be considered comprehensive and included in this review, they had to address multiple youth development constructs, or had to address youth development constructs across multiple social domains. The domains in which a program operated were determined by identifying the social settings or socialization units where the intervention focused: family, school, community, church, youth club, or service organization. The next section describes these domains.

Social Domains

The Family Domain

Family interventions can be generally divided into programs that use parent training (e.g., Patterson et al., 1982) and programs that incorporate parent involvement (Davis & Tolan, 1993). Parent training programs usually teach strategies directly to adult caretakers of children, who are then expected to practice these with their children. Parent involvement usually brings families into the implementation of the intervention, either through events or activities, or other strategies that expose them to the principles behind the intervention their child receives. There is evidence that families need clear, comprehensible information on child development in order to produce desired outcomes (Andrews et al., 1995), as well as skills, techniques and strategies that correspond to effective family management practices (Hawkins & Catalano, 1990).

Decision Rules about Operationally Defining the Family Domain. The family domain was defined in two ways in this study. A program received the designation “Family/Home” when the programs had a component directly working with parents and other family members that took place in families’ homes. It received the designation “Family/Unit” when the intervention targeted some form of family involvement, but not necessarily in the home setting.

The School Domain

Many positive youth development approaches, ranging from skills training curricula for competence promotion to full-service schools (Dryfoos, 1994), are based in schools. Classroom-based social competence-promotion programs represent the most commonly implemented and evaluated school-based prevention approach (Bond & Compas, 1989; Dryfoos, 1990; Weissberg, Caplan & Harwood, 1991).

Decision Rules about Operationally Defining the School Domain. School interventions include those with a component occurring in the school setting, and implemented by teachers, other school personnel, or external consultants who work in the school domain.

The Community Domain

Findings on the impact of community and neighborhood factors on youth development have led to calls for interventions that address these factors in youth programming (Hawkins, Catalano, et al., 1992; Weissberg & Greenberg, 1997). Community-based youth development interventions have grown increasingly important. The National Academy of Sciences, National Research Council (1996) noted that a new generation of neighborhood studies is underway, based on integrated, multi-disciplinary, life-span models of neighborhood effects.

Decision Rules about Operationally Defining the Community Domain. An intervention was defined as a community intervention if it operated outside the schools in the community or neighborhood in which the child and her family lived, or employed a community or neighborhood focused component as part of the intervention. Such interventions typically occurred in settings such as community centers, churches, service agencies, youth clubs, parks, or other public meeting places.

Inclusion Criteria for Reviewing Evaluations

In addition to these program criteria, the program's evaluation had to meet the following criteria in order to be included in this review.

Adequate Study Design and Outcome Measures

To be included, an evaluation was required to be sufficiently well designed to rule out threats to the internal validity and to allow conclusions to be drawn regarding program effectiveness. Therefore, an experimental or quasi-experimental design with an equivalent, structured comparison group and behavioral outcomes was required.

Adequate Description of the Research Methodologies

Several additional criteria were used to determine whether the study used adequate research methodology. Any attrition that occurred from pre-test measurement needed to be accounted for and analyzed through the statistical modeling of attrition effects, including effects of differential attrition from conditions. Statistical methods had to be appropriate for analyzing the outcome data. Other methodological aspects of the study were evaluated to determine that studies used the appropriate unit of analysis, had adequate power to detect program effects, and had reasonably equivalent experimental and comparison groups at baseline.

Description of the Population Served

The evaluation had to specify the demographic and other relevant characteristics of the groups with whom the intervention was shown to be effective. Descriptions were expected to include information on gender, age, cultural group, socioeconomic status, and family and community factors of the groups served. A description of the recruitment and consent processes was also expected.

Description of the Intervention

It was expected, though not required for inclusion, that the evaluation describe how the intervention components were expected to affect behavior. A criterion for inclusion was a description of how the intervention promoted positive youth development constructs. Adequate descriptions of the intervention included program goals and content, intervention delivery protocols, personnel delivering the intervention, site(s) of intervention, and duration and extent of program.

Description of Implementation

While not required for inclusion, the quality of program implementation was assessed if presented in the evaluation. Descriptions of how consistently the intervention was actually executed at all stages of delivery can help to distinguish implementation problems from problems in the design or conceptualization of the program. The ability to assess program implementation was enhanced in studies that included process measures collected by observers, or detailed documentation of contacts with participants.

Effects Demonstrated on Behavioral Outcomes

For inclusion in the review, evidence of significant behavioral outcomes was required. These included evidence that positive outcomes were enhanced or negative outcomes were reduced, or that both occurred. Programs were included if they demonstrated behavioral outcomes at any point, even if these results decayed over time. Programs were also included if they demonstrated effects on part of the population studied. Outcomes associated with changes in knowledge and attitudes were also examined, if behavioral outcomes were presented, because these provided evidence as to whether youth development constructs were strengthened.

CHAPTER THREE:

EMPIRICAL EVIDENCE FROM

POSITIVE YOUTH DEVELOPMENT

PROGRAMS AND EVALUATIONS

CHAPTER THREE: EMPIRICAL EVIDENCE FROM POSITIVE YOUTH DEVELOPMENT PROGRAMS AND EVALUATIONS

Introduction

Our analysis framework of program and evaluation criteria produced a range of diverse youth programs for review, some of which may be described as positive youth development, some as promotion programs, and others as primary prevention. Readers may question how the label of positive youth development fits a particular program with a prevention focus. The goals of this project were to analyze what programs do, and what their evaluations measure, rather than focusing on how they were labeled. We found that a number of programs traditionally considered primary prevention interventions incorporated many of the same positive youth development constructs as programs usually viewed as positive youth development programs. As will be demonstrated in this chapter, many programs with a “primary prevention” label were in fact embedded with numerous positive youth development strategies, and measured positive youth outcomes in addition to changes in problem behavior.

In this first section we describe the organization of the chapter and summarize the criteria used to exclude evaluations. The remaining sections of the chapter describe the settings, content, research design, and results of 25 well-evaluated positive youth development programs. These 25 programs incorporated positive youth development constructs into universal or selective approaches with youth between the ages of six and twenty. Their evaluations used a strong research design (experimental or quasi-experimental with viable comparison groups) and an acceptable standard of statistical proof, provided adequate methodological detail to allow an independent assessment of the study’s soundness, and produced evidence of significant effects on youth’s behavioral outcomes.

Chapter Organization by Numbers of Social Domains

Program material in this chapter is ordered according to how many social domains a program incorporated into its youth development framework. The number of social domains a program addressed is part of the definitional criteria for determining whether the intervention could be considered “comprehensive.” Well-evaluated programs in a single social domain are presented first. This section includes eight programs, two in the community domain and six in the school domain. Programs operating in multiple social domains are presented next, beginning with programs in two domains and concluding with three domain programs. The two-domain section has eight programs, including seven that combined family and school, and one program with school and community components. The three-domain section has nine programs, seven of which combined family, school, and community, one addressing family, church, and community; and a program working with school, community, and the work place. The description of each

study presents the positive youth development constructs that were addressed, program curricula and strategies, the evaluation's research design, and the posttest and follow-up (if available) results of the intervention. Some descriptions also feature implementation and cost-benefit information.

Summary of the Criteria Used to Rule Out Evaluations

From the original database of 161 programs identified as potentially within the scope of this study, 77 positive youth development programs had evaluations that appeared to meet the initial criteria for the analysis. Eight-four programs were not included for one of the following reasons: (1) no evaluation existed; (2) the "evaluation" contained no data beyond a narrative case study; (3) the study sample was an indicated population (symptomatic or in treatment); or, (4) despite comprehensive efforts, adequate evaluation information could not be retrieved.

EFFECTIVE PROGRAMS IN ONE SOCIAL DOMAIN

In Communities

- ◆ **Big Brothers/Big Sisters**
- ◆ **Bicultural Competence Skills**

In Schools

Health Promotion Programs

- ◆ **Growing Healthy**
- ◆ **Know Your Body**
- ◆ **Children of Divorce Intervention Program**

Competence Promotion Programs

- ◆ **Life Skills Training**
- ◆ **The PATHS Project**
- ◆ **Project ALERT**

EFFECTIVE PROGRAMS IN ONE SOCIAL DOMAIN

Eight positive youth development programs targeted a single social domain. Two of these, **Big Brothers/Big Sisters** and **Bicultural Competence Skills**, operated in the community domain. Six programs focused on children in the school domain: **Growing Healthy, Know Your Body, Children of Divorce, Life Skills Training, The PATHS Project, and Project ALERT**.

Summary of Positive Youth Development Programs Set in Communities

Two well-evaluated positive youth development interventions in communities demonstrated significant youth behavior outcomes. Both programs used experimental research designs and random assignment of children to intervention and control groups. One, **Bicultural Competence Skills**, used a skill and competence-based curriculum; the other, **Big Brothers/Big Sisters**, was a mentoring program without a skills component. **Bicultural Competence Skills** included follow-up results. Although **Big Brothers/Big Sisters** did not include long-term follow-up, it provided a sustained intervention exposure (18 months) and measurement period.

Both programs sought to build bonding, competence, and positive identity, but their approaches to promoting these constructs were very different. Each addressed healthy bonding relationships in its own way: **Big Brothers/Big Sisters** with individual adults, and **Bicultural Competence Skills** through strengthening the bonds that bicultural children have to both majority and sub-group cultures. While **Bicultural Competence Skills** addressed competence directly through a skills training curriculum, **Big Brothers/Big Sisters** took the approach that the primary mechanism of changes in competence (social, behavioral, emotional) are based on the development of a consistent adult-child bond in a mentoring relationship.

In both evaluations, program strategies had a measurable impact on students' outcomes. Positive youth outcomes included greater self-control, assertiveness, and healthy and adaptive coping in peer-pressure situations (**Bicultural Competence Skills** program), and improvements in school attendance, parental relations, academic performance, and peer emotional support (**Big Brothers/Big Sisters**). Problem behaviors were also reduced or prevented. Substance use was lower in the experimental groups for both interventions, and hitting, truancy, and lying were reduced as a result of participation in **Big Brothers/Big Sisters**.

Programs in One Social Domain: Community

Big Brothers/Big Sisters

Tierney, Grossman and Resch (1995) evaluated the **Big Brothers/Big Sisters** program, a mentoring intervention in the community domain. The study addressed nine positive

youth development constructs, including social, emotional, cognitive and behavioral competencies, positive identity, bonding, resiliency, self-efficacy, and prosocial norms.

Program Description

The intervention model featured positive youth development strategies that did not include a specific skills training component, but rather, targeted systemic change in the child's social domains as a function of bonding with a healthy adult. The core strategy in Big Brothers/Big Sisters is to have youth use the program structure and resources to establish a mentoring relationship with prosocial adults. The minimum time commitment required of mentors was several hours, two to four times a month for at least a year. More than 70% of matches in this study met at least three times a month for more than three hours each time, and nearly half met once a week and had an average total exposure of 11 months. The one-to-one mentoring was based on careful matching of adult mentors and children on backgrounds, preferences, and geographic proximity. National standards were implemented for volunteer and youth screening, training, matching, meeting requirements, and supervision.

Research Design

The Big Brothers/Big Sisters evaluation used an experimental study design that randomly assigned participants to the intervention condition or a wait-list control group. The 18-month wait list corresponded to what is often the usual waiting period for matches in this program. Each agency implemented random assignment procedures until it met the sample size goals. Sites were chosen based on large active caseloads, waiting lists, and geographic diversity. No long-term follow-up data were collected. All data reflected pre-post measurement from interviews conducted at baseline and at immediate posttest 18 months later. Attrition analyses showed that the original sample of 1138 youth, ages 10-14, experienced attrition of 179 participants, resulting in a final sample of 959 youth. Participants were from eight BB/BSA program sites in Phoenix, Wichita, Minneapolis, Rochester, Columbus, Philadelphia, Houston and San Antonio during the study period in 1992-93. Approximately 60% were minority group members (predominantly African-American and Hispanic). More than 40% received food stamps or public assistance.

Results of the Intervention

The evaluation reported significant outcomes at the $p < .10$ level, but this review acknowledged only those results which met the more rigorous $p < .05$ standard. The evaluation demonstrated results on behavioral and attitude measures in six impact areas: antisocial activities, academic performance and other school indicators, relationships with family, relationships with friends, self-concept, and social/cultural enrichment. Overall program and control group differences included decreases in drug use (45%, $p < .05$), hitting (32%, $p < .05$), the number of times a youth skipped class (37%, $p < .05$) or a day of school (52%, $p < .05$), and the number of times a child lied to his parents (37%, $p < .05$). Significant increases were found in the perceived ability to complete schoolwork (71%, $p < .01$), and improved parental relationships reflected as increases on indicators of trust (64%, $p < .05$). Specific sub-group effects showed the program had the greatest impact on

substance abuse reductions for minority boys (67.8%, $p < .05$). Measures of cognitive or academic competence showed larger impacts for minority girls in the treatment group, whose perceived scholastic competence scores were 10% higher ($p < .01$) than those of control group minority girls. Caucasian Little Brothers also significantly increased their scholastic competence scores (7%, $p < .05$). Minority male children in the intervention group experienced the highest levels of increased peer emotional support (6%, $p < .05$) compared to children in the control group. No overall significant effects on measures of self-concept (differences on global self-worth, social acceptance or self-confidence) were noted, but the sub-group of Caucasian treatment group boys scored significantly higher on the social acceptance scale than their control group counterparts ($p < .01$).

Bicultural Competence Skills

Schinke, Botvin, Trimble, Orlandi, Gilchrist and Locklear (1988) evaluated the **Bicultural Competence Skills** program, an intervention based on bicultural competence theory and social learning principles. The program addressed 11 positive youth development constructs, including social, emotional, cognitive, behavioral, and moral competencies, positive identity, bonding, self-efficacy, recognition for positive behavior, opportunities for prosocial involvement, and prosocial norms.

Program Description

A core component of the program philosophy was helping children develop a positive identity based on "bicultural fluency," or becoming socially competent in two cultures. The specific skills training strategies used by the program ranged from practice and rehearsal techniques (fostering opportunities, recognition, and promoting competence), such as role-play, to positive peer-based cultural strategies (promoting positive identity, prosocial norms, and bonding), such as homework assignments on communication and coping strategies associated with bicultural efficacy. Two Native American counselors led the 10-session intervention.

Research Design

The study used an experimental pretest, posttest, follow-up design in which subjects were voluntarily recruited, then randomly divided after pretesting by reservation site into prevention and control conditions. All subjects completed four outcome measures before, immediately following, and at 6-months post intervention that analyzed culture-relevant peer influences on tobacco, alcohol and drug use, levels of substance abuse, and changes in substance abuse knowledge and attitudes relevant to Native American culture. The unit of assignment matched the unit of analysis (individual). The attrition analysis showed that attrition averaged nine percent across the sample at 6-month follow-up with no dropout differences identified between conditions. The sample of 137 Native American youth, whose average age was between 11 to 12 years old, came from two western Washington reservation sites in a population drawn from tribal and public schools. The evaluation established group equivalence at pretest on the children's household composition, level of acculturation, and current place of residence.

Results of the Intervention

The evaluation found significant results at immediate posttest measurement and at 6-month follow-up in favor of the program group. The analysis showed main effects for the intervention ($F(1,124) = 8.28, p < .005$) and for measurement occasion ($F(1,124) = 7.22, p < .01$). At posttest, program students were significantly more knowledgeable about substance use and abuse and held less favorable attitudes about substance use in the Native American culture than their control group counterparts. The intervention group youth also had significantly higher ratings for self-control, the ability to generate alternative suggestions to peer pressure-based encouragement to use substances, and assertiveness. The outcomes on substances used in the previous fourteen days showed that intervention youth reported lower levels of smokeless tobacco use (Program group (P) mean = 2.38, Control group (C) mean = 3.77, $p < .05$), less alcohol (P mean = 3.63, C mean = 4.71, $p < .05$) and marijuana use (P mean = 2.12, C mean = 3.79, $p < .05$). At the 6 month follow-up, intervention participants continued to score higher on measures of knowledge of substance abuse (P mean = 17.2, C mean = 11.5, $p < .05$), self-control (P mean = 1.89, C mean = .87, $p < .05$), alternative suggestions (P mean = 1.14, C mean = .43, $p < .05$), and assertiveness (P mean = 1.38, C mean = .90, $p < .05$), and reported significantly less use of smoked tobacco (P mean = 1.41, C mean = 2.37, $p < .05$), smokeless tobacco (P mean = 2.56, C mean = 4.11, $p < .05$), alcohol (P mean = 3.76, C mean = 4.92, $p < .05$), marijuana (P mean = 1.97, C mean = 4.02, $p < .05$), and inhalants (P mean = .94, C mean = 1.32, $p < .05$) in the last 14 days.

Programs in One Social Domain: Schools

Six programs set in the school domain demonstrated effectiveness. These included **Growing Healthy, Know Your Body, Children of Divorce Intervention Program, Life Skills Training, the PATHS Project, and Project ALERT**. The first three programs focused on health promotion, and the latter three addressed competence promotion through skills training.

Summary of Positive Youth Development Programs Set in Schools

The analysis of single-domain school-based interventions identified six programs that were well evaluated and showed significant effects on youth behavior. These positive youth development programs set in schools can be generally divided into two types: health promotion-focused interventions, and competence promotion-focused interventions. This analysis identified three health promotion and three competence promotion programs in which positive youth development constructs and strategies were successfully incorporated and changed behavioral outcomes for children. In all six programs, the primary emphasis of the intervention was on children's acquisition of skill-based learning to produce the desired behavioral changes. Strategies in these programs relied on opportunities for children to absorb new information and knowledge, and

practice specific skills (e.g., coping, decision-making, self-management, frustration tolerance, impulse control, refusal/resistance, life skills, and academic mastery).

Five of the six programs (Growing Healthy, Know Your Body, Life Skills Training, The PATHS Project, and Project ALERT) were multi-year interventions; the exception was a relatively short-term intervention (Children of Divorce) that used developmentally-focused strategies to promote mental health protective factors in a specific at-risk population (children of divorced parents). These programs all used a strong research design, with five of the six employing an experimental design and random assignment of children to intervention and control groups. In all three evaluations of the school-based competence promotion programs, long-term follow-up was designed into the evaluation framework, although only two of the three demonstrated continued effects at follow-up (PATHS and Life Skills Training). Although the health promotion program evaluations did not include follow-up, two of the three (Growing Healthy and Know Your Body) were multi-year trials that provided sustained intervention exposure and measurement periods.

All programs produced evidence of significant changes in children's positive or problem behavior. Among the improvements in positive youth outcomes that resulted from these interventions were better personal health management attitudes and knowledge (Growing Healthy), practices (Know Your Body, Growing Healthy); greater assertiveness, sociability, problem-solving, and frustration tolerance (Children of Divorce); increased acceptance of prosocial norms having to do with substance use (Life Skills Training and Project ALERT); increased interpersonal skills and decision making (Life Skills Training); and a higher capacity for managing one's reactions and behavior in social and emotional situations, greater self-efficacy with creating new solutions to problems, and increased empathy (PATHS). These interventions also had a significant impact on the reduction or prevention of problem behaviors in children. One of the greatest areas of impact for several programs involved successfully changing knowledge, attitudes and/or behavioral practices around cigarette smoking (Know Your Body, Growing Healthy, Life Skills Training and Project ALERT). Two single domain programs also improved youth attitudes and practices around substance use and abuse (Life Skills Training and Project ALERT). Other favorable changes in youth problem behaviors included changes in aggressive and conflict behavior (PATHS).

Effective Health Promotion Programs in Schools

Know Your Body

Walter, Vaughan and Wynder (1989) evaluated the impact of **Know Your Body**, a school-based health promotion intervention that addressed eight positive youth development constructs including social, emotional, cognitive, and behavioral competencies, self-efficacy, recognition for positive behavior, positive identity, and prosocial norms.

Program Description

The program strategies encompassed a range of social, cognitive and behavioral skills training designed to promote children's competencies and self-efficacy on health and self-management issues. These included educating youth on the connections between smoking-related decisions and self-image, values, anxiety, and stress (positive identity, prosocial norms); skills training in stress management, decision-making, communication and assertiveness (competence, self-efficacy, recognition, positive identity); and increased awareness of social influences in the initiation of smoking (prosocial norms). The curriculum-based intervention was based on the principles of social learning theory and the health beliefs model. The primary goal was to modify personal health behaviors related to the future development of cancer, including cigarette smoking, diet, and physical activity.

Research Design

The study used an experimental design, with eight schools (485 students) randomly assigned to the intervention group and seven schools (620 students) randomly assigned to the control group. There were only two measurement points over six years, at baseline and at six-year posttest. Both the attrition analysis and pretest measures of group equivalence showed that the 65% of original participants who remained at posttest measurement were not significantly different from those lost to the study on baseline levels of risk factors, knowledge, or behaviors. The evaluation used schools as the unit of analysis and unit of assignment. Implementation quality was assured, though not systematically measured, with teacher adherence to special teaching protocols monitored by research staff. The study targeted a population of all fourth grade children ($n=1105$) in 15 New York city elementary schools serving Hispanic/Latino, Caucasian, African-American, and Asian ethnic groups, although the largest group represented was primarily middle class Caucasians. Of the eligible subjects, 911 (82.4% overall, 92% of intervention school students and 75% of nonintervention school students) participated in the baseline measures. By the end of the study, 593 (65%) of the sample had measurement data recorded at both baseline and at termination six years later. In the baseline sample, the mean age was 8.9 years at baseline, and 79.3% were Caucasian, 13.8% were African American, 2.2% were Hispanic and 4.7% were another ethnic identity (mostly Asian). The authors did not state the ethnographic composition of the final sample at posttest in this evaluation. The intervention provided two hours of curricula per week taught by the children's regular teachers throughout the school year over a six-year period.

Results of the Intervention

Behavioral outcomes were reported through a combination of physiological measures (e.g., serum tests to detect nicotine levels, examining and weighing school lunch portions), parent or caretaker reports, and 24-hour dietary recall interviews. The results at six-year posttest showed that the program was effective in modifying two major risk factors associated with the development of cancer -- smoking and diet. Ninth grade students (both females and males) in the intervention schools had 73.3% ($p<.005$) lower

rates of smoking initiation than students in the nonintervention schools. Also by the ninth grade, students (both females and males) in intervention schools had 19.4% ($p < .05$) lower levels of saturated fat, a 9.8% decrease in total fat, and a 9.5% ($p < .05$) net increase in consumption of carbohydrates. Significant effects among sub-groups showed that males increased their consumption of total carbohydrates, while females showed net decreases in total and saturated fat plus increases in total carbohydrates and crude fiber.

Growing Healthy

The analysis of the **Growing Healthy** program (known originally as the **School Health Curriculum Project**, or **SHCP**) used information from several evaluations (Connell, Turner & Mason, 1985; Connell & Turner, 1985; Smith, Redican & Olson, 1992). The study of main interest was an evaluation of the cumulative effects of the intervention. This was a sub-study of the larger School Health Education Evaluation (SHEE), an extensive study of more than 30,000 children, grades 4 to 7, in 1071 classrooms in 20 states. Growing Healthy addressed nine positive youth development constructs, including social, emotional, cognitive, and behavioral competencies, self-efficacy, opportunities for prosocial involvement, recognition for positive behavior, positive identity, and prosocial norms.

Program Description

The intervention was a comprehensive school health education curriculum that addressed emotional and social aspects of a child's growth and development. The program strategies were implemented by regular classroom teachers, who were trained along with other educational staff in a team training format over three to five days. Students were exposed to between 43 and 56 lessons over a one or two year period (depending on intervention condition). Strategies targeted youth's skills and educational innovations in the classroom. Skills training covered a range of social, cognitive, and behavioral instruction that promoted various positive youth development constructs (e.g., competence, self-efficacy) and enhanced self-image and school and home behavior (positive identity, competence, self-efficacy). Educational innovations were introduced to positively change teacher practices (promoting recognition for positive behavior, opportunities for prosocial involvement, and prosocial norms).

Research Design

The Growing Healthy/SHCP study used a quasi-experimental design with comparison groups. Four school districts (one mid-Eastern urban district, one mid-Southern suburban district, and two Western rural districts) were selected on the basis of meeting these conditions: all had a pool of children who had received one grade unit (43-56 sessions) of instruction in the preceding year; had a second pool of children who had received no instruction; had both pools take part in pre- and posttesting in the previous year; and had scheduled implementation for the next higher grade level after the first intervention year. The study was designed to assess the cumulative effects of the intervention on 65 classrooms whose students fell into two groups, prior program exposure and no exposure. The unit of analysis was partial classrooms defined by previous health instruction. This

resulted in eight groups of students (n=1397) in 130 partial classrooms with varying exposure levels: two groups receiving two units or doses of the curriculum, four groups receiving one unit, and two groups receiving no units. In the 1982-83 school year, fourth and fifth grade students were enrolled in classrooms which either did or did not receive the program. The performance of these groups at the beginning of the year was assessed on tests of knowledge, attitudes and practices by comparing 01 vs. 03 and 05 vs. 07. Initial testing for effectiveness was done through comparing 02 vs. 04 and 06 vs. 08. Youth from these classrooms were then promoted to the next higher grade: grade four SHCP and unexposed students were promoted to grade five and grade five SHCP and unexposed students were promoted to grade six. Pretest measures of group equivalence were conducted and showed that groups were comparable at baseline measurement points. The youth consisted of 47% who had been previously exposed to SHCP and 50.3% who were male. Their ethnic identities were 40% African-American, 1% Hispanic, 57% Caucasian, and 1% from unspecified ethnic backgrounds.

Results of the Intervention

The results indicated significant effects for the intervention groups in both years compared to those with no exposure to the curriculum, shown by differences at posttest for knowledge, attitudes, practices, and smoking variables. On all knowledge measures (growth and development, mental health, personal health, nutrition, family life, disease prevention, substance use/abuse, safety/first aid, consumer health, community health), attitude measures (accepting personal responsibility, maintaining a healthy body, safeguarding the environment, respecting the rights and roles of self and others), and measures of practices (decision-making skills, personal healthy practices, social adaptability), groups with two units of exposure performed better than those with one unit, while both groups scored higher than groups with no exposure to the curriculum. At the 1982-83 posttest, intervention classrooms outperformed unexposed classrooms by 9% on the knowledge tests, and 5% on the attitude and practices scales (all findings significant at $p < .01$). The 1983-84 posttests found significant effects for knowledge by exposure and grade, and for attitudes by exposure group. Significant effects for practices were found by exposure and grade, with the fifth grade having higher practice scores than the sixth. Effects on smoking variables showed both exposure and grade differences. Although the fifth grade children showed no significant differences for percent smoking, regardless of exposure (fifth grade students reported little smoking activity), students who had received two units of exposure indicated less intention to smoke in the future than unexposed groups. Among sixth grade groups, both exposure groups were lower for both current smoking (2 units = 2.8%; 1 unit = 3.7%, no exposure = 9.6%, $p < .05$) and for future intentions to smoke (2 units = 9.2%; 1 unit = 8.4%; no exposure = 17.1%, $p < .05$) than the unexposed group.

The Children of Divorce Intervention Program

Pedro-Carroll and Cowen (1985) evaluated the **Children of Divorce Intervention Program**, an intervention for elementary school age children that addressed 10 positive youth development constructs, including social, emotional, cognitive, and behavioral

competencies, bonding, self-efficacy, resiliency, prosocial norms, opportunities for prosocial involvement, and recognition for positive behavior.

Program Description

The strategies in this study combined health and competence promotion techniques based upon a child development theory that hypothesized how children respond to parental separation. The 10-session framework corresponded to an initial stage (two sessions) for building group cohesion and trust, (bonding, prosocial norms), an interim stage (four sessions) for structuring practice and rehearsal opportunities (competence, self-efficacy, opportunities, recognition) and a final stage (four sessions) for enhancing mastery and the generalization of skills to the youth's environment (resiliency, self-efficacy). Specific strategies included skills for effective problem-solving, communications, decision-making, and anger and anxiety management.

Research Design

The intervention used an experimental design in which children were randomly assigned to an experimental or control condition within their own schools, and were matched by sex, grade, length of time since their parents' separation, and eight of 10 pre-adjustment measures. There was no attrition in the study. A posttest was done for all measures two weeks after the intervention ended. No follow-up data were collected. The study sample of third through sixth grade Caucasian students included 75 participants (42 boys and 33 girls) from four suburban schools who had been recruited from program descriptions sent to the parents. Another program evaluation (Pedro-Carroll, Alpert-Gillis & Cowen, 1992) was reviewed, but the 1985 study is reported here because of its stronger research design. We note that the later quasi-experimental study showed similar patterns of results.

Results of the Intervention

Results showed significant improvements at the two-week posttest for the experimental group compared with the control group on a number of behavioral outcomes. Teacher ratings indicated that children in the experimental group had greater reductions in anxiety (31.5% vs. 34.16%, $p < .02$) and learning problems (23.07% vs. 27.75%, $p < .05$), as well as on an overall index of classroom adjustment problems ($F(3,66) = 8.49$, $p < .001$). The children in the intervention group were rated higher by teachers on a total competence score ($t = 6.50$, $p < .001$), and on specific competencies including peer sociability ($F(5,64) = 17.59$, $p < .001$), frustration tolerance ($F(5,64) = 6.04$, $p < .05$), compliance with rules ($F(5,64) = 7.72$, $p < .01$), and adaptive assertiveness ($F(5,64) = 5.10$, $p < .05$). Group leaders rated significant increases in skills for personal problem solving ($t = 3.85$, $p < .001$).

Effective Competence Promotion Programs in Schools

Life Skills Training (LST)

This review analyzed two evaluations of the **Life Skills Training (LST)** in 56 New York State public schools, one covering immediate posttest results of a three-year intervention (Botvin, Baker, Dusenbury, Tortu & Botvin, 1990) and the other, follow-up data collected

three years after the end of the intervention (Botvin, Baker, Dusenbury, Botvin & Diaz, 1995). Both evaluations reflected studies conducted in the school domain, although we note that later replications of this intervention model also target the community domain. The three-year intervention addressed six positive youth development constructs, including social, emotional, cognitive, and behavioral competencies, self-efficacy, and prosocial norms.

Program Description

The curriculum emphasized the practice of personal and social skills, including decision making, refusal and resistance, anxiety management, communication, and assertiveness (competencies). Other goals were to increase youth's information and awareness of substance use and abuse, media and advertising influences, and the capacity for self-directed behavior change. The program was 15 sessions for two sessions per week in the first year, 10 booster sessions in the second year, and five booster sessions in the third year. Teachers implementing the program received one day of instruction and a detailed program manual.

Research Design

The study used an experimental pre-post-follow-up design that divided the schools into three levels based upon a survey of existing smoking levels (high, medium and low). Within these levels, schools were divided by geographic region (eastern New York state, central New York state and Long Island), and then randomly assigned to one of three groups: a prevention program with one-day formal teacher training and implementation feedback (E1), a prevention program with videotaped provider training and no feedback (E2), or a no intervention control group C. There were an uneven number of schools (the first prevention condition had 18 schools, the second prevention condition had 16 schools, and the control condition had 22 schools), which evaluators noted was due to an uneven number of schools in the original assignment blocks, loss of one school after randomization but before intervention, and intentional oversampling of control schools. The attrition analysis showed greater overall losses in the control group. The evaluation established equivalence among the groups at pretest on the variables associated with the evaluation's behavioral outcomes. Of those students in all groups whose pretest measures indicated substance use, smoking, or marijuana use, those in the control group who used marijuana at pretest had higher attrition rates. Over the six years of the long-term study, 40% of the original sample were unavailable for follow-up due to absenteeism, transfers, and drop-outs. There were 5954 students in the original sample drawn from a universal population of students in 56 New York State public schools in grades seven to nine. The samples used for the posttest analyses included 4466 students who took both pretests and posttests (referred to as the full sample), and 3684 students who were identified as having received a nearly complete implementation of the program (referred to as the high fidelity sample). The samples used for the long-term analyses included 3597 students who completed both pretests, posttests, and follow-up measures (full sample), and 2752 who received higher fidelity implementation (high fidelity sample). Across studies, most participating youth were white (91%) and lived with both parents (83%).

Implementation

The study addressed implementation through teacher training and manuals, student guides, staff observation, feedback, and reinforcement. Implementation was measured by dividing objectives covered during each session by the total number of actual curriculum objectives for the particular session observed.

Immediate Results of the Intervention

The evaluation of immediate posttest results for Life Skills Training (three years after baseline) reported significant changes in youth's knowledge, attitudes, and behavior. Both intervention groups showed significantly lower cigarette ($F(2,3678) = 5.72, p < .003$) and marijuana ($F(2,3678) = 4.04, p < .01$) smoking rates compared to the control group. The second intervention group (taped teacher training) showed a lower frequency of alcohol intoxication ($F(2,3678) = 3.25, p < .04$) compared with controls. Both prevention conditions showed improvements for knowledge of substance use. The first intervention group (workshop teacher training) showed significantly higher scores than the second intervention group on knowledge of smoking consequences, and both intervention groups had significantly lower expectations than the control group concerning adult smoking norms. The first intervention group had significantly lower expectations about norms for adult and peer marijuana use. Both prevention groups had significantly higher interpersonal skills knowledge than the control group.

Results of Long-Term Follow-Up

The long-term follow-up (Botvin, Baker, Dusenbury, Botvin & Diaz, 1995) measured the participants six years after baseline when they averaged 18 years of age, and reported results separately for the full sample and the high fidelity sample. This evaluation reported only long-term behavioral outcomes associated with substance use. The authors noted "Carbon monoxide levels in expired air were significantly correlated with self-reported cigarette smoking ($r = .35, p < .001$) across groups, providing presumptive evidence for the validity of the self-report data" (Botvin et al., 1995:1109). The long-term follow-up results for the full sample ($n = 3597$) showed significant decreases in monthly smoking rates ($E1 = .27, p < .05, E2 = .26, p < .01, C = .33$) for both prevention groups compared to the control, and lower weekly rates for both intervention groups as well ($E1 = .23, p < .01, E2 = .21, p < .05, C = .27$). The prevalence of heavy cigarette smoking (full sample) was lower for the second prevention group ($E2 = .09$ vs. $C = .12, p < .05$) compared to the control. Problem drinking rates (full sample) decreased for both prevention groups compared to the control group youth ($E1 = .57, p < .05, E2 = .55, p < .01, C = .59, p < .05$). Polydrug use rates showed lower combined monthly cigarette smoking and alcohol use for both prevention groups ($E1 = .21, E2 = .21, C = .29, p < .01$), lower combined weekly tobacco and alcohol use for the second prevention group ($E2 = .10, C = .14, p < .05$), lower combined weekly tobacco and marijuana use for both prevention groups ($E1 = .04, E2 = .04, C1 = .08, p < .01$), and lower weekly levels of combined alcohol, tobacco and marijuana use for both prevention groups ($E1 = .03, E2 = .03, C = .06, p < .05$).

The long-term follow-up results for the high fidelity sample ($n=2752$) of youth also demonstrated continued effects of the intervention. Six years after baseline, the sample who had received a relatively complete implementation of the program showed significantly lower rates for both intervention groups compared to the control group on measures of monthly ($E1 = .24$, $E2 = .23$, $C = .33$, $p < .01$), weekly ($E1 = .20$, $E2 = .19$, $C = .27$, $p < .05$), and heavy cigarette smoking ($E1 = .09$, $E2 = .08$, $C = .12$, $p < .05$). Both intervention groups had lower levels of weekly ($E1 = .24$, $E2 = .20$, $C = .29$, $p < .01$) and heavy ($E1 = .53$, $E2 = .52$, $C = .59$, $p < .01$) drinking, as well as intoxication ($E1 = .31$, $E2 = .28$, $C = .40$, $p < .01$). The second intervention group had lower levels of monthly drinking ($E2 = .54$, $C = .60$, $p < .01$) and the first intervention group had lower monthly marijuana rates ($E1 = .10$, $C = .14$, $p < .05$). Both groups had lower weekly marijuana rates ($E1 = .05$, $E2 = .05$, $C = .09$, $p < .05$) compared with controls. Polydrug use measures showed lower rates for both intervention groups for monthly combined cigarettes and alcohol ($E1 = .19$, $E2 = .1$, $C = .27$, $p < .01$), monthly combined cigarettes and marijuana ($E1 = .05$, $E2 = .07$, $C = .12$, $p < .01$), weekly combined alcohol and marijuana ($E1 = .03$, $E2 = .04$, $C = .07$, $p < .01$), weekly combined cigarettes and marijuana ($E1 = .02$, $E2 = .03$, $C = .08$, $p < .01$), and weekly combined cigarettes, alcohol, and marijuana ($E1 = .02$, $E2 = .02$, $C = .06$, $p < .01$). The first group showed lower polydrug rates of combined monthly alcohol and marijuana ($E1 = .09$, $C = .13$, $p < .05$) and combined monthly cigarettes, alcohol, and marijuana ($E1 = .05$, $C = .10$, $p < .01$). The second intervention group showed lower rates of combined weekly cigarettes and alcohol ($E2 = .09$, $C = .13$, $p < .01$).

The PATHS Program

Greenberg (1996) and Greenberg & Kusche (1997) evaluated the impact of **The Providing Alternative Thinking Strategies (PATHS)** program, a school-based skills training program that addressed 10 positive youth development constructs, including social, emotional, cognitive, behavioral and moral competencies, bonding, self-efficacy, resiliency, recognition for positive behavior, and prosocial norms.

Program Description

The **PATHS** curriculum (Kusche & Greenberg, 1994) included strategies for self-control and coping; self-management of feelings; and interpersonal problem-solving. The three-step self-management process centered on the use of red, yellow and green stoplights as techniques for the child to guide herself in monitoring and managing behavioral and emotional impulses. Program principles presume that recognition, labeling, and understanding of emotional states are necessary for effective behavioral self-control, positive peer relations, and good problem-solving abilities. The self-control unit is a modified version of the stoplight model used in the Yale-New Haven Middle School Social Problem-Solving Program (Weissberg, Caplan & Bennetto, 1988).

Research Design

The study used a pre-post-follow-up experimental design comparing the intervention vs. control groups by normally adjusted vs. high risk/special needs students. For the regular needs subsample, four schools were randomized to either the intervention or control

group. For the special needs subsample, 14 special education classrooms from three school districts were randomly assigned to intervention or control condition. Posttesting and two follow-up assessments were conducted over the next four years. At pretest, the participants were in the first and second grades. At posttest they were in the third and fourth grades. The program was conducted with an original sample of 426 six- to eleven-year-olds. The final group of 286 subjects were those who completed all of the individual tests as well as both teacher interviews. This sample was comprised of all ethnic groups: 165 Caucasians, 91 African Americans, 11 Asians, seven Filipinos, seven Native Americans, one Hispanic, and four children of unknown ethnic identity. Of the 286, 130 received the intervention (83 regular education; 47 special education) and 156 were in control classrooms (109 regular education; 47 special education.) The evaluation measured the program over one school year, with classes taught three times a week for 20-30 minutes by the regular teachers. Teachers underwent a three-day training workshop and received weekly consultation and observation from project staff. The original intention of the study was to assess the effects of one versus two years of intervention. However since only about 30% of children received two years of intervention, there was insufficient power to detect differences in those analyses.

Immediate Results of the Intervention

The posttest results for the normally adjusted subsample showed significant improvements in the intervention group children's abilities to make important discriminations among internal emotional states (the ability to generate positive and negative feeling words ($p < .01$), to define five complex feelings ($p < .01$), and to provide appropriate personal examples of different feelings ($p < .001$); in children's sense of self-efficacy and beliefs that they can manage their feelings ($p < .01$); improved reasoning with respect to the feelings of others ($p < .01$); and how feelings change ($p < .001$). There were general group improvements in solutions to interpersonal problem-solving, including a higher percentage of prosocial solutions, higher scores for total effectiveness of solutions, less likelihood to show aggressive solutions, and a greater likelihood to show prosocial solutions in second and third choices for solutions (no p values were provided). On cognitive competence measures there were two significant improvements for the general group: non-verbal reasoning on a test of cognitive skills ($p < .01$), and visual-spatial reasoning ($p < .03$). Improvements in social competence were found only for the boys in the intervention group compared to the control group boys.

Among the special needs youth at posttest, there were self-reported improvements for the intervention group in the ability to generate positive and negative feeling words ($p < .01$), to provide appropriate personal examples of different feelings ($p < .001$), in their efficacy/belief that they can hide, manage, and change their feelings ($p < .01$), in improved reasoning about others' feelings ($p < .01$), and how feelings change ($p < .001$). There was a higher percentage of non-confrontational solutions and a lower percentage of aggressive solutions. Significant changes in social competence were noted, including specific improvements in internalized symptoms ($p < .01$), frustration tolerance ($p < .01$), assertiveness ($p < .01$), peer social skills ($p < .01$), and on a combined measure of social competence ($p < .001$). Teacher ratings of these children showed improvements in

empathy, the ability to stop and calm down, to resolve peer conflicts, to define feelings, and to identify problems.

Results of the Long-term-Follow-Up

The follow-up evaluation of the general group showed continued effects for the intervention on measures of emotional understanding and interpersonal problem-solving skills. At one year, there were lasting effects for greater self-control and prosocial solutions among the intervention group children, plus sustained improvement in the quality of planning on a task of social planning ($p < .05$), and a test of concentration and focus ($p < .05$). Lower aggression and passivity levels were also sustained (no p values reported). At the second year, there were significant improvements on measures of externalizing behaviors and social/school functioning ($p < .05$), and lower rates of student-reported conduct problems (year 2).

At one-year follow-up, the special needs group showed continued effects for the quality of social planning ($p < .05$), focus and concentration ($p < .05$), less aggression and passivity, more self-control and prosocial solutions, lower rates of student-reported conduct problems and somatic complaints ($p < .05$), and lower rates of depressive symptoms ($p < .01$).

Project ALERT

Ellickson, Bell and Harrison (1993), Ellickson, Bell and McGuigan (1993), and Ellickson & Bell (1990) evaluated the immediate posttest and long-term impact of **Project ALERT**, a school curriculum that addressed five positive youth development constructs, including social, cognitive and behavioral competencies, self-efficacy, and prosocial norms.

Program Description

This multi-year, school-based program was provided to students in grades seven to eight and used refusal and resistance skills development strategies (competence, self-efficacy) seeking to motivate young people to resist pro-drug influences (prosocial norms) and to give them the capacity for doing so (competence, self-efficacy).

Research Design

The evaluation of Project ALERT used an experimental pre-post-follow-up design in which 30 schools were chosen from eight school districts in California and Oregon. These districts represented a range of community environments, racial and ethnic groups, and socioeconomic levels. The schools were blocked by district, and assignment was restricted to a subset balanced among experimental conditions on characteristics such as school test scores, language at home, drug use among the schools' eighth graders, and the ethnic and income composition of school districts. Schools were then randomly assigned to one of three conditions: control, experimental-teacher-led or experimental-teacher-led with assistance from teen leaders. The posttest evaluation was conducted 15 months after baseline after the students had received both the 10-session program in the seventh grade

and the three-session booster program in the eighth grade. The baseline sample consisted of 6527 students. The final sample ($n = 3852$) at the end of the eighth grade intervention represented 60-64% of the original sample. Of the missing students, about one half moved after baseline and one half were absent or failed to supply the relevant information at one or more surveys. Attrition analyses showed the experiment's internal validity was not affected and attrition rates did not differ significantly across experimental conditions. However, external validity was affected due to students omitted from the end of eighth grade survey being more likely to have before-treatment characteristics often cited as risk factors (e.g. family disruption and early drug use). Posttest analyses used three sub-groups based on baseline risk levels, with risk level 1 being students who had tried neither cigarettes or marijuana, risk level 2 students who had tried cigarettes but not marijuana, and risk level 3 were those students who had previously tried marijuana. The demographic composition of the final sample was 49% male, 71% White, 9% Hispanic, 8% African-American, 10% Asian, and 3% Native American and another ethnic identity. Twenty-five percent of the sample had a C average or lower grades, 20% had a father who wasn't a high school graduate, 33% were not living with both birth parents, 48% had prior use of cigarettes, 75% had prior use of alcohol and 14% had prior use of marijuana. Nine of the schools had minority populations of at least 50% and 18 drew from neighborhoods with household incomes below their state median.

Immediate Results of the Intervention

The program showed short-term positive effects through the end of eighth grade on behavioral measures and measures of cognitive risk factors associated with substance use. Sub-group analyses based on baseline risk level showed that cigarette use reduced significantly for baseline experimenters in measures of past month use ($E2 = 23.6$, $C = 32.3$, $p < .01$), in monthly use ($E1 = 16.5$, $C = 22.4$, $p < .05$), in weekly ($E1 = 5.7$, $C = 11.1$, $p < .01$) and daily ($E1 = 2.3$, $C = 5.1$, $p < .05$) use. For smoking marijuana, there were significant improvements in prevalence estimates (29% vs. 36%, $p < .01$), expectations of using, and perceived consequences. The impact on marijuana beliefs was slightly more effective among those who had not tried either marijuana or cigarettes (risk level 1) than among those who had tried cigarettes but not marijuana (risk level 2), particularly for students in the teen leader group; this latter effect, however, diminished over time. For cigarette and marijuana knowledge and attitudes, changes were particularly positive for baseline non-users of cigarettes and marijuana. The program also had a significant impact on each item making up the social consequences scale. Program effects were smaller for alcohol; effects on youth beliefs were limited to positive changes in youth prevalence estimates at 15 months ($p < .01$), and the perceived ability to resist an offer of alcohol on a date ($p < .05$). Expectations of future use changed more for marijuana than for the other target substances. Fewer students in both intervention conditions anticipated using marijuana in the future, but the program had no impact on cigarette and alcohol expectations during the second year. Compared to the control group, intervention students were more likely to believe that using cigarettes and marijuana can bring immediate and negative social consequences and can result in becoming dependent on the substance. The program reduced the intervention group estimates of how many students use each target

drug and helped those in the teen-leader schools believe that resisting cigarettes and marijuana can bring greater respect from one's friends.

Ellickson and Bell (1990) reported negative outcomes for baseline smokers at the end of the intervention. Characterizing these as "boomerang effects," they noted these negative results were stronger in the teen leader schools (where many of the other robust positive effects were measured). By 12 months, baseline users had increased smoking by 20% in these schools ($p < .05$), which grew to 30% after exposure to the booster program ($p = .004$). The authors noted that this boomerang effect for baseline smokers has been found in other anti-smoking programs (e.g., Biglan et al, 1987). They offered this interpretation (p.1304): "The results...suggest that early cigarette smokers need a more aggressive program than that offered by the social influence model alone...For these more confirmed smokers, being told that most of their peers do not smoke and exposing them to nonsmoking teens appears to be irrelevant at best and counterproductive at worst."

Results of Long-Term Follow-Up

Results of long-term follow-up measured at grades 10 and 12 showed that all intervention effects diminished by the end of high school. Once the lessons stopped, the program's effects on drug use stopped. Significant effects on cognitive risk factors (belief that drug use has negative personal consequences and that resistance brings respect from one's friends) persisted for a longer time (many through grade 10) in the teen leader schools ($p < .01$), but did not produce corresponding reductions in use. By the end of high school, the intervention no longer had a significant effect on behavior. Its earlier positive impact on cigarette and marijuana use had completely disappeared as had the negative boomerang effect for baseline cigarette users.

EFFECTIVE PROGRAMS IN TWO SOCIAL DOMAINS

Family and School

- ◆ **The Child Development Project**
 - ◆ **Fast Track**
 - ◆ **Metropolitan Area Child Study**
 - ◆ **Reducing the Risk**
 - ◆ **Seattle Social Development Project**
- ◆ **Social Competence Promotion for Young Adolescents**
 - ◆ **Success for All**

School and Community

- ◆ **Teen Outreach**

EFFECTIVE PROGRAMS IN TWO SOCIAL DOMAINS

Eight programs combined two social domains or components. Seven effective youth development programs were conducted in combined family and school domains: **the Child Development Project, Fast Track, Metropolitan Area Child Study, Reducing the Risk, the Seattle Social Development Project, the Social Competence Promotion Program for Young Adolescents, and Success for All**. These programs successfully changed youth outcomes, promoted positive youth development constructs and strategies, and incorporated parent or family involvement. One program, **Teen Outreach**, combined school and community domains.

Summary of Family and School- Based Positive Youth Development Programs

The analysis of school- and family-based interventions identified seven effective youth development programs that were well evaluated and showed significant effects on youth behavior. These primarily school-based programs successfully changed youth outcomes, promoted positive youth development constructs and strategies in the school setting, and used a variety of methods to incorporate parent or family involvement. Five programs were multi-year interventions that used strong quasi-experimental research designs; two used an experimental design (Fast Track and Metropolitan Area Child Study).

Positive youth development programs set in school and family domains typically promote competence within, and bonding to, the family while promoting these positive youth development constructs in the youth. The school is usually the primary setting for implementing youth strategies while a combination of approaches are employed to engage the family. These include direct parent training or education strategies, often conducted at the school; program implementation strategies in the home setting to enhance the child's acquisition of new skills and learning (e.g., parent involvement in homework assignments generated from the school-based component, or home visits); or parental participation in the program design or organizational strategies. Metropolitan Area Child Study and Seattle Social Development Project used the first strategy, direct parent training. Child Development Project, Reducing the Risk, and Social Competence Promotion for Young Adolescents used the second parent strategy, bringing parents into the implementation of the program. Fast Track used the first two, training and home visits. Success For All used all three, training parents, and involving them in both the implementation and organizational aspects of the intervention. These school-family programs all used methods to assure the quality of program implementation, and nearly all programs measured implementation. Those measuring implementation included Child Development Project, Fast Track, Reducing the Risk, Seattle Social Development Project, Social Competence Promotion Program for Young Adolescents, and Success for All.

Positive youth development programs set in schools and families generally tried to introduce protective factors into both settings. While the children are learning skills or other youth development strategies, parents are frequently the focus of efforts to foster family competence, parent self-efficacy, bonding between child and family and between

parent and intervention, and to promote prosocial norms in the family. Only a few of the interventions systematically measured parent changes or outcomes, e.g., Fast Track measured parenting competencies.

Each program produced evidence of significant changes in youth's positive or problem behavior. Improvements in positive youth outcomes included greater social acceptance by and collaboration with peers (Child Development Project; Fast Track); improved communication with parents and greater self-efficacy around contraceptive practices (Reducing the Risk); higher achievement and school attachment (Seattle Social Development Project); increased social acceptance by, involvement and cooperation with peers, problem-solving and creative solutions (Social Competence Promotion Program); improved cognitive competence and academic mastery (Success for All); and improvements in acceptance of authority, classroom atmosphere and focus, and appropriate expression of feelings (Fast Track). These interventions also had a significant impact on the reduction or prevention of problem behaviors in children, including alcohol (Child Development Project and Seattle Social Development Project) and tobacco (Child Development Project) use. Rates or frequency of delinquency or aggressive behavior decreased in four programs (Fast Track, Metropolitan Area Child Study, Seattle Social Development Project, and Social Competence Promotion Program). Youth attitudes and practices around contraception or initiation or prevalence of sexual activity were reduced in two programs (Reducing the Risk and Seattle Social Development Project).

Programs in Two Social Domains: Family + School

Child Development Project

Battistich, Schaps, Watson and Solomon (1996) evaluated the **Child Development Project**, an intervention that addressed 13 positive youth development constructs, including social, emotional, cognitive, behavioral, and moral competencies, bonding, resiliency, self-efficacy, recognition for positive behavior, positive identity, opportunities for prosocial involvement, prosocial norms, and self-determination.

Program Description

The Child Development Project is characterized by a specific positive youth development goal, to help schools become caring communities of learners. The intervention was designed to become part of the children's overall school experience. The theoretical foundation of the program was based on social learning theory, learning and motivation theory, prosocial development theory, and bonding and attachment theory. The program curricula were integrated with teacher training and new practices to reduce exposure to "old practices." Parents were targeted to build stronger connections between home and school (bonding). The two primary strategies included bringing parents into community-building projects with their children and teachers, and "homeside" activities (bonding, competence). The core program used a comprehensive approach to instructional practices. These consisted of classroom practices such as cooperative learning (opportunities, bonding, competence, self-efficacy, self-determination), a values-based reading and language arts program (prosocial norms, competence), and developmental discipline

techniques (self-determination, competence, opportunities). Another component included classroom and whole school elements such as classroom and school community-building activities (bonding, prosocial norms, opportunities).

Research Design

The study used a quasi-experimental research design, specifically a cohort sequential method involving two demonstration and two comparison schools in each district, at a total of 24 elementary schools from six school districts around the United States. Demonstration schools were selected based on the likelihood they would implement the program; comparison schools were then matched on characteristics of the student populations, and willingness of the school administration to participate. Beginning with baseline assessments in spring 1992, successive cohorts of upper grade students were assessed annually in the spring of each year using group-administered questionnaires. Two sets of analyses examined program effects on student drug use and delinquency. The first set examined condition differences and the second set examined these results in the context of program implementation levels. In the second set of analyses, the 12 demonstration schools were classified into three groups of four schools each—high, moderate or low implementation—based on changes from baseline in six observational measures of program practices. School districts included three large urban districts, one small urban district, one suburban district, and one rural district. The authors described the student populations at these schools as varying greatly. The range of students receiving free or reduced school lunch was from 2% to 95%; the sample's ethnic composition over three years of measurement ranged from 39-54% for Caucasian children, 17-23% for African-Americans, 21-27% for Hispanics, 5-10% for Asians, and 2-3% "other" youth (defined as Native American, Alaskan Native, Pacific Islander, and "other"). Between zero and 32% of participants spoke limited-English or no English, and average achievement levels ranged from the 24th to the 67th percentile on standardized tests. The overall sample ($n = 1645$) included slightly fewer boys (48%) than girls (52%). The overall program included students from the third through the sixth grades; assessments for this evaluation included the fifth and sixth grade cohorts, with average age 11 to 12 years old.

Results of the Intervention

Assessments of drug use and delinquent behaviors were limited to students at the top elementary grade (fifth or sixth) at each of the schools. The student questionnaire results showed that alcohol use significantly declined (4%) at the demonstration schools during the first year of the intervention and stayed the same during the second year ($F(2, 4510) = 4.19, p < .02$). In contrast, alcohol use increased significantly at the comparison schools during the same period (2-3% increases each year; $t(4715) = 2.49, p < .02, ES = .12$). Changes in the prevalence of marijuana use and vehicle theft showed similar trends but were not statistically reliable. Tobacco use declined among students at both demonstration and comparison schools over the course of study ($F(2, 4524) = 11.52, p < .001$). The authors also presented results of an extensive implementation analysis of the 12 demonstration schools, which were classified into low/medium/high implementation based on changes from baseline in six observational measures of program practices:

teacher warmth and supportiveness, emphasis on prosocial values, encouragement of cooperation, elicitation of student thinking and expression of ideas, use of extrinsic control, and student autonomy and influence. Differences in youth outcomes associated with implementation level were discussed at length, and conclusions about effectiveness were linked with the high implementation schools. However, most of these could not be determined to be statistically significant due to, among other things, reduced sample sizes. There were, however, significant decreases for program students in high implementation schools compared with controls in marijuana use ($F(2, 1368) = 8.56, p < .001$), carrying weapons ($F(2, 1375) = 7.28, p < .002$), and vehicle theft ($F(2, 1368) = 7.11, p < .002$). In addition to these outcomes for this large sample, another evaluation (Battistich et al., 1989) of an earlier, smaller ($n=521$) sample of Child Development Project participants reported that program children were significantly more accepting of, and accepted by, their classmates, were less lonely, and were lower in social anxiety than children in comparison schools.

Fast Track

Greenberg (1998) and The Conduct Problems Prevention Research Group (1997) evaluated the **Fast Track Prevention Project**, a multi-site, multi-year intervention that addressed 10 positive youth development constructs, including social, emotional, cognitive, and behavioral competence, self-efficacy, resiliency, bonding, recognition for positive behavior, opportunities for prosocial involvement, and prosocial norms.

Program Description

The comprehensive intervention is guided by developmental theory on youth competence and the multiple influences through which antisocial behavior manifests. Fast Track is based on a unified model of prevention that consists of both universal and selective components, with some of the selective components individualized to the needs of the child and the family. The universal component is the PATHS teacher-led classroom curriculum. The selective intervention components were administered only to the high-risk sample, and included PATHS, parent training groups, home visits, child social skill training groups, child tutoring in reading, and peer pairing in the classroom. The Fast Track curriculum in first grade had 57 lessons of the main curriculum, taught approximately three times a week with each lesson lasting 20-30 minutes. Forty percent of the lessons focus on skills for understanding and communicating emotions, thirty percent focus on skills for increasing positive social behavior; and thirty percent focus on skills for self-control and social problem-solving. Parent and child training groups were weekly in grade one, biweekly in grade two, and monthly thereafter for the rest of the project. Teacher training included a two and a half day workshop and weekly consultation and observation with project staff.

Research Design

Approximately 13 schools within each of four sites (Durham, North Carolina; Nashville, Tennessee; Seattle, Washington; and rural central Pennsylvania) were selected based on community risk factors and invited to participate in the intervention. Schools were

randomized into intervention and control participants (after obtaining building consensus to participate) and the intervention was conducted in three successive years with three cohorts of first graders. There were 201 classrooms and 184 matched comparisons across the three cohorts. For the high-risk sample, a multi-stage screening of all kindergarten children based on teacher and parent ratings yielded the top 10% of high-risk children. They were then contacted for pre-intervention assessments and upon completion of these, included in the total sample with the condition based on the school they entered for the first grade. This resulted in three successive yearly cohorts for a total of 448 intervention and 450 control group children. The high-risk sample was approximately 47% Caucasian, 51% minority students, generally African-American, and two-thirds male. Fifty-five percent of children received free or reduced lunch and the mean reading percentile was in the 49th percentile. No significant differences existed between intervention and control schools on any of these characteristics.

Results of the Intervention

The evaluations reported findings for both the universal and high risk samples. The full study results were reported through teacher, peer, and independent observer ratings. Results for the high risk sample were reported through teacher and parent measures. In the full study, the teacher ratings showed outcomes in favor of the intervention group on measures of accepting authority ($F(1,333) = 3.6, p < .04$), and a higher mean liking score ($F(1,333) = 3.8, p < .05$). Peer ratings showed that intervention classrooms had lower peer aggression scores ($F(1,377) = 5.42, p = .02$), and less hyperactivity ($F(1,377) = 4.66, p = .03$) than controls. Observer ratings of positive classroom atmosphere were significantly higher for the intervention classrooms ($F(1,279) = 5.6, p = .01$). Sub-ratings of these scales showed improvements for students' appropriate expression of feelings ($F(1,279) = 4.3, p < .05$), classroom enthusiasm ($F(1,279) = 8.2, p < .01$), and the classroom's ability to stay focused and on task ($F(1,279) = 9.5, p < .005$).

Analyses of the high risk sample using growth curve models showed the impact of the intervention on two conduct problem measures provided by parent daily report and teacher observations of classroom adaptation. Outcomes showed that the control group increased in disruptive behavior at school compared with intervention children, while intervention group children showed greater reductions in conduct problems at home compared with controls. Although the intervention and control groups started at the same level of disruptiveness, the control group increased on this dimension while the intervention group stayed the same or declined slightly. Parent data showed similar patterns of greater decline in conduct problems at home for the intervention group youth.

Analyses of nine mediating variables measuring the mediating role of child and parent competencies (six child and three parent competency measures, tested as a set) were conducted using the average of the end of second and third grade assessments. Investigators used structural models linking the intervention condition to each youth behavior measure and found significant results for the mediating variables: improvements in both child and parental competency factors did in fact mediate the decreases in child conduct problems. The results of the growth curve data underscore an important aspect of

positive youth development, namely that intervention effects are gradual and cumulative and operate along a developmental (time-based) trajectory.

Results of the Implementation Analyses

The analyses examined the effects of dosage and used four ratings of the quality of implementation: teacher's rated skill in teaching PATHS concepts, skill with which teachers modeled and generalized PATHS concepts throughout the day, the quality of teacher classroom management skills, and teacher's openness to consultation with the educational coordinator. For dosage there was a significant main effect on the sociometric rating of prosocial behavior. The teachers' rated skill in teaching and modeling PATHS concepts, the skill with which teachers modeled and generalized PATHS concepts, and classroom management skills were all significantly related to scores for authority acceptance, cognitive concentration, and social competence. Classroom management skill was also related to the sociometric score on prosociality. Openness to consultation was significantly related to cognitive concentration, social competence, prosociality, and to hyperactivity.

The overall results from this intervention suggest some interesting questions for future studies of positive youth development. As the authors (Conduct Problems Prevention Research Group, 1997:13) said: "The interpretation of these findings is a bit complicated by the fact that the universal intervention was delivered along with the selective intervention for children with early behavior problems. Although analysis with and without the high-risk children showed similar patterns, the classroom scores may not be entirely free of the impact that the selective intervention may have on the high-risk children. Improvements in the high-risk children may reduce teacher stress, improve peer relations and thus also possibly affect outcomes."

Metropolitan Area Child Study

Eron, Guerra, Henry, Huesmann, Tolan and Van Acker (1997) evaluated the impact of **Metropolitan Area Child Study**, a multi-year prevention field trial that addressed 10 positive youth development constructs, including social, emotional, cognitive, behavioral and moral competencies, bonding, resiliency, self-efficacy, opportunities for prosocial involvement, and prosocial norms.

Program Description

This intervention is a combined universal and selective prevention program designed to influence norms affecting aggression in a general population, and to lower aggressive behaviors in a high-risk sample. The intervention goal was to modify the youth's cognitive system while influencing aspects of her social systems (the classroom, the school and the family) shown to be key in the learning of aggressive behaviors. The intervention used different combinations of positive youth development strategies across conditions. In the first condition, the classroom intervention integrated three components including a teacher education program, collaborative support strategies from project staff, and a social-cognitive curriculum called "Yes I Can." The educator strategies included the development of prosocial behavior in students (prosocial norms, recognition), cultural

sensitivity (competence, bonding), and proactive behavior management (self-efficacy, competence, resiliency). The curriculum strategies consisted of 40 one-hour lessons taught by teachers over two years, and included teacher manuals and student workbooks. Program themes included self-understanding (self-efficacy, resiliency), relationship of self to others (bonding), and moral beliefs (competence, prosocial norms). The second condition was a classroom-based general enhancement intervention, and an intensive small-group component in which youth received social-cognitive and peer-relationship training in a small group. These strategies targeted children's cognitive attributions, beliefs and scripts, and gave them modeling, role-play and leadership opportunities to practice new scripts in a non-threatening setting. Small groups met during the regular school day once a week for 28 weeks over two years (12 weeks in first year and 16 weeks in the second year). The third condition included the classroom program, the small group intervention, and a family intervention. The family relationship component emphasized parenting management skills, enhanced communication (bonding, competence), and family cohesiveness strategies including family problem-solving, monitoring, reframing and coping skills (competence, bonding, prosocial norms, opportunities).

Research Design

The intervention used an experimental design. Two urban communities (Chicago and Aurora) with many high-risk children were selected within a larger metropolitan area. Schools were recruited through an extensive screening process, and 16 elementary schools participated (from an original group of 130 that applied). These were randomly assigned to each of four experimental conditions including three intervention levels and a control condition, as described. Four schools received each of the three interventions and there were four control schools that received none. Schools were blocked on the basis of their ethnic composition, geographic location and aggressiveness rating level of the children. The four blocks were Chicago Hispanic, Chicago African American, Aurora Hispanic, and Aurora Mixed. One block of four schools was randomly assigned to each condition. Two schools (one in Chicago, one in Aurora) were replaced because of administrative changes before the first year, and one school was replaced after the third year of the intervention due to administrative issues. The attrition analysis showed that from baseline to posttest, attrition was about 44% (range of 39% in Level C to 50% in Level A), yielding a final sample of 789 children. Initial aggression scores indicated that aggression was significantly higher for the group that dropped-out. The overall sample was studied in three two year waves: 1991-1993, 1992-1994, and 1993-1995. This included an early intervention consisting of four cohorts with second-third or third-fourth grade students, and a late intervention consisting of two cohorts of fifth-sixth grade students. The sample was 40% African-American, 40% Hispanic and 20% Caucasian. Two-thirds of the children qualified for a free lunch program, with significant variance across ethnic groups (African Americans were the mostly likely to qualify, Caucasians were the least). Low socioeconomic status was significantly correlated with aggression levels at baseline. The baseline aggression scores of the study sample were high compared with national averages. There were no significant differences in ethnic composition, SES, levels of aggression, and beliefs about aggression across the four conditions.

Results of the Intervention

Published results for the Metropolitan Area Child Study showed mixed outcomes. Pretest aggression scores were used as a covariate. Children who were already moderately prosocial and received the small group intervention were found to have significantly increased prosocial behavior at posttest ($F(3,361) = 4.04, p < .01$). Prosocial behavior was found to have a significant moderating effect on posttest aggression scores for the early intervention condition. In the early intervention condition, control group participants who were low in prosocial behavior and in aggression at pretest were found to have high levels of aggression at posttest; this was not true for intervention children, which the authors suggested meant the program prevented the development of high levels of aggression in this sub-group of children. Late intervention (grades 5-6) children who were high in pretest aggression had significantly lower posttest aggression scores than control children ($F(3,257) = 4.8, p < .003$). However, the late intervention children who scored as moderately aggressive at pretest scored worse on the posttest than comparable control group children.

In addition to these published evaluation data, more recent unpublished evidence showed significant effects for decreased aggression for the full sample, delivered early (second and third grade). Results showed the early intervention improved the program group's on-task behavior and stopped deterioration of prosocial behavior. Both the early and late versions prevented normal deterioration in academic achievement, compared with control youth. These effect sizes ranged from .15 to .33 (Tolan et al., 1998).

Reducing the Risk

Kirby, Barth, Leland and Fetro (1991) evaluated **Reducing the Risk**, an intervention that addressed nine positive youth development constructs, including social, emotional, cognitive, behavioral and moral competencies, self-efficacy, opportunities for prosocial involvement, prosocial norms, and self-determination.

Program Description

The program strategies combined cognitive behavioral skills training (competence, self-efficacy), a social inoculation focus (self-efficacy, self-determination), teacher and peer role modeling (opportunities, prosocial norms), and organizational strategies designed to influence students' motivation and peer group variables associated with delaying sexual activities and effective contraception. The curriculum structured parental involvement in children's learning and skills acquisition through multiple homework discussion strategies. The program exposure was 15 class periods and some parent-child discussion of an unspecified amount, with teachers attending a three-day training session. Implementation was assessed through observations and ratings by the evaluation team, and student and teacher perceptions of the curriculum usefulness. The evaluation collected data from pretest to posttest and over an 18-month follow-up period.

Research Design

The evaluation used a quasi-experimental design with partial random assignment and comparison groups. Forty-six classes of students taking a mandatory health education class were assigned to either treatment or comparison groups. Some of the classes were randomly assigned, and others were not. Approximately half of the program and control classes that were taught by the same teachers; the other half were divided as program classes taught by one group of sexuality educators and comparison classes taught by a different group. Thirteen urban and rural schools in California participated with a total of 1033 students in 23 classes (586 in the intervention group; 447 in the comparison group) surveyed at pretest, and 758 completing both the posttest and follow-up questionnaires. The authors (Kirby et al., 1991: 256) note: "Because most comparison classes were receiving whatever sexuality instruction those teachers were already providing, this evaluation measures the impact of the RTR curriculum relative to other sexuality curricula, not the overall impact of RTR alone." The sample consisted of 53% female youth and 47% male youth, of whom 62% were Caucasian, 20% were Latino, 9% were Asian, 2% were Native American, 2% were African American, and 5% were of unspecified ethnic identity. The attrition analysis showed a 27% rate for both the intervention and comparison groups, and those lost to attrition differed in several ways from the remaining participants. At pretest they were more likely to be older, male, sexually experienced, not live with both parents, have poor grades, not have talked to their parents about abstinence, and failed to use birth control because sex was unplanned.

Short-Term Results of the Intervention

The initial study results were based on posttest outcome measures at six months of contraceptive knowledge, perception of peer sexual prevalence, sex initiation, and unprotected sex. These indicators were assessed by the students, teachers and parents. At posttest measurement, the intervention group had significantly greater contraceptive knowledge than the control group (76% vs. 65%, $p < .001$). There were greater increases among the intervention students in communicating with their parents about abstinence (66% vs. 61%, $p < .01$) and birth control (53% vs. 41%, $p < .01$). The comparison group believed at posttest that more of their peers were having sex than at pretest (3.1% vs. 3.3%, $p < .01$), while there was no change in this belief for the intervention group.

Long-term Results of the Intervention

Results for the long-term follow-up showed sustained behavioral effects for the intervention. Significant results were found in lower rates of initiation of intercourse among intervention participants who had never had intercourse (29% vs. 38%, $p < .05$). Measures of contraceptive practices showed no significant overall differences between the two groups for increases in contraceptive use from pretest to posttest, but there were significant differences in some sub-groups. Only 4% of females and 3% of low-risk teens in the program group had unprotected intercourse, compared with 16% of females and 11% of low-risk youth in the comparison group ($p < .001$). Among all lower risk youth independent of previous sexual experience, youth in the program group were significantly less likely to have had unprotected sex at last intercourse, and less likely to have had

unprotected sex all or most of the time. At pretest, 11% of both intervention and comparison groups had engaged in unprotected sex; at 18 months only 13% of the intervention group were not using contraception, compared to 23% of the comparison group ($p < .05$). Other continued effects seen at 18 months for the students in the program group included greater levels of contraceptive knowledge ($p < .001$) and communication with parents about abstinence ($p < .05$).

Seattle Social Development Project

Hawkins, Catalano, Kosterman, Abbott and Hill (1999) evaluated the **Seattle Social Development Project**, a multi-year intervention that addressed nine positive youth development constructs including social, emotional, cognitive and behavioral competencies, bonding, self-efficacy, opportunities for prosocial involvement, recognition for positive behavior, and prosocial norms.

Program Description

The intervention sought to promote academic achievement and other competencies, and to prevent a range of negative youth outcomes including crime, teen pregnancy, drug abuse, school failure and dropout, by increasing prosocial bonding, which is hypothesized to be a mediating construct of the desired outcomes. Components included teacher training in methods of classroom instruction and management, parent training in developmentally appropriate methods of parenting, and social competence training for youth. In the first and second grades, parents in the full intervention condition were offered the seven-session "Catch 'Em Being Good" curriculum for child behavior management skills. In the spring of second grade and again in third grade, these parents were offered the four-session "How to Help Your Child Succeed in School" curriculum. In grades five and six, full and late intervention parents were offered the five-session Preparing for the Drug Free Years curriculum. In grade six, students in the full and late treatment groups received four hours of training from project staff in recognizing and resisting social influences to engage in problem behaviors and generating positive alternatives for staying out of trouble. Teachers in intervention classrooms received five days of inservice training per year on proactive classroom management, interactive teaching, and cooperative learning methods to use in managing and teaching their classes.

Research Design

The study used a quasi-experimental design with comparison groups. The population overrepresented schools located in high-crime, high-poverty neighborhoods, but youth within classrooms in these schools were treated universally. To assess the effects of full intervention and late intervention, a nonrandomized controlled trial with three conditions was created. The full intervention group received the intervention package from grade one to six. The late intervention group received the intervention package in grades five and six only, and the control group received no special intervention. This design was created in 1985 by nesting an intervention study begun in 1981 at first grade entry within the longitudinal panel study. For the present study, schools were assigned to conditions in the fall of 1985 and from that point, all fifth grade students in each school participated in

the same interventions. The full intervention group consisted of all students who were randomly assigned to intervention classrooms in grades one through four in eight elementary schools participating in the earlier experimental study, and who remained in schools assigned to the intervention condition in grades five and/or six in the present study. The late intervention group consisted of students in intervention schools who were in intervention classrooms in grades five and six only, some of whom were controls in the earlier intervention study. The control condition consisted of students in schools assigned to receive no intervention in grades five and six and who were not in intervention classrooms in grades one through four. The final sample included 643 fifth grade students assigned to three conditions whose parents consented to their involvement in the follow-up study, which was conducted six years after intervention at age 18. Of these 643 students, 598 were successfully tracked and interviewed (93%). The demographic and ethnographic composition among three experimental conditions ranged from 47-53% male, 42-46% Caucasian, 21-30% African-American, 18-24% Asian, 3-7% Native American, and 1-5% of other ethnic identity. Participants' eligibility for free lunch averaged 56%. At age 18 the three study groups did not differ significantly on residential stability, socioeconomic status, or proportions who were male, Caucasian, non-Caucasian, or from single-parent households. Implementation quality was assured by teachers in both sets of classrooms being observed for 50 minutes on two different days in the fall and spring of each year, and given scores rating fidelity to intervention practices. Data were also collected using questionnaires for youth, parents and teachers; data on delinquency charges in King County Juvenile Court, California Achievement Test results, grade point averages, and school disciplinary action reports through age 17 from the Seattle School District.

Long-term Results of the Intervention

The findings reported when the students were 18 (six years post intervention) showed positive effects for the full treatment intervention group compared to the control group on many of the school, delinquency and sexual behavior outcomes. Students in the full intervention reported significantly stronger attachment to school ($p=.006$), improvement in self-reported achievement ($p=.01$) and significantly less involvement in school misbehavior ($p=.02$) than controls. While no effects were shown for either the full or late intervention groups for lifetime prevalence of cigarettes, alcohol, marijuana or other illicit drug use at age 18, significantly more subjects in the control group than in the full intervention group had committed violent acts (48.3% vs. 59.7%, $p=.04$), reported heavy alcohol use in the past year (15.4% vs. 25.6%, $p=.04$), had engaged in sexual intercourse (72.1% vs. 83%, $p=.02$), or had multiple sex partners (49.7% vs. 61.5%, $p=.04$).

Analysis of the interactions between poverty and intervention condition showed that the full intervention was significantly more effective for poorer children in positively affecting attachment to school and in reducing having to repeat a grade. The intervention had significantly greater effects for working and middle class youths in reducing the lifetime prevalence of pregnancy or of having or fathering a baby. Most observed intervention effects did not differ by gender; however, the full intervention had

significantly greater effects on preventing males from repeating a grade and engaging in sexual activity.

The Social Competence Program for Young Adolescents

Weissberg and Caplan (1998), and Caplan, Weissberg, Grober, Sivo, Grady and Jacoby (1992) evaluated the **Social Competence Program for Young Adolescents**, which addressed nine positive youth development constructs including social, emotional, cognitive and behavioral competencies, bonding, prosocial norms, self-efficacy, recognition for positive behavior, and resiliency.

Program Description

The program's six units were designed to enhance personal and interpersonal effectiveness (social-emotional competence and bonding) and to prevent the development of maladaptive behavior. The intervention did this through teaching and reinforcing students' developmentally appropriate skills and information (cognitive and behavioral competence, self-efficacy, recognition), fostering prosocial and health-enhancing values and beliefs (prosocial norms) and creating environmental supports (all forms of competence, bonding, and resiliency). The 12-week intervention was a 16-session competence promotion program that used highly structured, scripted 45-minute lesson plans in conjunction with applications to promote competence and prevent substance abuse.

Implementation

Implementation strategies included training for teachers and undergraduate aides in 10 90-minute workshops before program implementation, and continuing throughout the 16-week intervention. They also received on-site consultation and coaching during classroom lessons, and following the 16-week program received three monthly two-hour training to focus on ways to help maintain SCP skills by students. Two observers independently rated the quality of program implementation in each classroom.

Research Design

The evaluation used a quasi-experimental research design with comparison groups. The program was described to teachers at four middle schools who were then given the opportunity to voluntarily participate. Teachers who volunteered had their classrooms assigned to a control or program condition based on scheduling and comparability of academic-ability grouping levels across conditions. Separate analyses were conducted to compare the outcomes associated with high versus low implementation fidelity. Tests of the groups' equivalence at baseline indicated they were comparable to one another on all but eight (five favoring the intervention group, three favoring the control group) of 28 variables at pretest. The sample consisted initially of 447 fifth to eighth grade students from 11 program (n=238) and nine control (n=183) classes in four urban, multi-ethnic schools. The final sample (n=421) of 210 male and 211 female students from low- and middle-income families included 178 Caucasian students, 167 African-American, 72 Hispanic, and four students of other, unidentified ethnic identity. The authors provided

analyses of group differences showing that control and program groups did not differ with respect to grade level, gender or race and that students had comparable academic achievement levels. However, the groups did differ on 8 of 28 variables at pretest. The attrition analysis showed high retention levels across groups, with the study losing only 26 students (5.8% of the sample) whose parents withheld permission.

Teacher observations were made by both primary and secondary teachers (who were hypothesized to be blinded to treatment condition) to help deal with the potential of inherent teacher bias. After the main program impact analyses, a related set of analyses were performed to assess whether the quality of program implementation influenced student outcomes by comparing pre-to-post changes for students from well-implemented program classes, less well-implemented program classes, and the control group. Three assessment instruments yielded 16 measures of students' problem solving skills, conflict resolution attitudes, and self-reported assertiveness in response to hypothetical situations.

Results of the Intervention

The evaluation found significant positive effects on minor delinquency (36.8% vs. 2.8%, ($F(1,399) = 4.37, p < .05$) and increases in or maintenance of positive behaviors including improved behavioral conduct ($F(1,399) = 8.57, p < .01$), involvement with peers ($F = 6.02, p < .05$), and social-acceptance ($F = 4.17, p < .05$). Significant changes were noted for the intervention group for social problem-solving ($F(9,168) = 4.92, p < .001$), and improvements in attitudes for conflict resolution strategies ($F(6,171) = 2.97, p < .01$). Program participants improved more than controls in generating a greater number of cooperative solutions ($F(2,192) = 16.14, p < .01$), more effective solutions ($F(2,192) = 5.52, p < .01$) and more planful solutions ($F(2,192) = 8.08, p < .001$). Program students generated significantly lower percentages of aggressive ($F = 4.94, p < .05$) and passive ($F = 11.29, p < .01$) solutions from pre to posttest when compared with control group students. Program students liked peers who resolved conflicts in assertive ways significantly more than control students ($F(1,176) = 4.07, p < .05$); endorsed cooperative strategies more than control students ($F(1,175) = 4.24, p < .05$); and were shown to respond more assertively rather than passively or aggressively to hypothetical situations ($F(1,311) = 7.06, p < .01$). Primary teacher ratings showed that relative to controls, program students improved significantly in behavioral conduct ($F = 17.54, p < .001$) but not in social acceptance by peers.

Results Based on Implementation Analyses

Independent of implementation quality, program students showed significant gains relative to controls in solution effectiveness, number of planful solutions and percentage of cooperative solutions, and decreased more in the percentage of passive solutions. Students in well-implemented program classes improved significantly more than those in lower-quality implementation classes and control classes on the number of alternative solutions generated to problem situations ($F(2,192) = 13.01, p < .001$), the extent of endorsing assertive ($F(2,193) = 3.58, p < .05$) and cooperative ($F(2,193) = 4.09, p < .05$) conflict-resolution strategies, and on secondary teacher ratings of behavioral conduct ($F(2,366) = 8.95, p < .001$) and social acceptance ($F(2,366) = 15.88, p < .001$).

Success for All

Slavin et al. (1996) evaluated the impact of **Success for All**, an intervention that addressed eight positive youth development constructs, including social, cognitive, and behavioral competencies, bonding, self-efficacy, opportunities for prosocial involvement, recognition for positive behavior, and prosocial norms.

Program Description

The program has been described elsewhere as based on reading achievement, but its focus on academic success is grounded in a more comprehensive philosophy of what it takes to promote positive youth development in children. The program authors refer to their concern with a focus on the success of every child, and a philosophy of "neverstreaming," i.e., not separating special needs students from the mainstream. The program formula links academic success and cognitive competence to developing a child's overall capacity for self-respect and self-efficacy, concluding that in their absence, the ingredients necessary for successful positive youth development disappear: "When a child fails to read well in the early grades, he or she begins a downward progression" (Slavin et al., 1996: 42). The program addressed cognitive competence in several ways, through reading performance achievement, and through rehearsing strategies for self-assessment and self-correction. Other positive youth development strategies included one-to-one tutoring, cooperative learning, assessments every eight weeks, vision/hearing screenings, working with parents and social service agencies to ensure attendance, parenting skills workshops, providing medical services and eyeglasses, and helping with behavioral problems. This six-year intervention targeted Grades K-5 in a sample of 110 schools. At the time of evaluation the program was being implemented in 300 schools in 23 states.

Research Design

The quasi-experimental research design was a 'multi-site replicated experiment' design in which groups were matched rather than randomly assigned, and each grade level cohort was specified as the unit of analysis. For specific site studies the unit of analysis was the individual student; however, the comprehensive evaluation reported here chose the multi-site replicated experiment method of analysis which specified each grade level cohort as the unit of analysis. Each intervention school was matched with a comparison school based upon variables including poverty-level percentage of students qualifying for a free lunch, achievement level, and ethnicity of the student body. Individual children in program schools were matched with children in non-program schools based on either scores on district-administered standardized tests or scores on the Peabody Picture Vocabulary Test. The overall findings for 23 evaluated schools constituted 55 experimental and 55 control cohorts, with each cohort made up of 50-150 students. The sample of almost all African-American students in first grade were 75-96% eligible for a free lunch program.

Results of the Intervention

The results showed significant differences in favor of the intervention group for reading scores at all grade levels. The Success For All program yielded statistically significant

positive effects on every outcome measure at every grade level ($p < .001$), which averaged around half a standard deviation per grade level. Students in the lowest 25% of their grades showed effect sizes averaging one standard deviation. These effect sizes progressively increased with each year of implementation of the program. The intervention also showed significant positive gains for Asian (mostly Cambodian) students learning English as well as Spanish speaking students who were provided with a Spanish version of the Success for All curriculum. The overall comparison of Success for All to Reading Recovery, a similar reading program based upon one-to-one tutoring, showed only slightly better results for Success for All when looking at results for all children. However, an analysis of only special education children showed substantial differences in favor of Success for All students (effect size = .77).

Summary of School and Community-Based Positive Youth Development Programs

The analysis found only one well-evaluated, effective youth development program, Teen Outreach, that was conducted in combined school and community domains. This primarily school-based intervention promoted positive youth development constructs and strategies in the school setting by providing community service opportunities for young people, and produced positive behavioral outcomes on school performance and reduced teen pregnancy.

The analysis showed that positive youth development programs using a community domain component can be described as organizing or applying their strategies in one of three ways: through being an implementation resource or site, in which for example, children perform community service or volunteering, or meet for group intervention sessions at a community center; through program designers addressing specific community risk or protective factors; or through direct involvement of the community, as in community organization and mobilization strategies that target changes in community-level policies and practices. This program is an example of the first type of community domain application. The school was the primary setting, while community resources and opportunities were used to support outcomes.

Programs in Two Social Domains: School + Community

Teen Outreach Program, 1991-95

Allen, Philliber, Herrling, and Kuperminc (1996) evaluated the **Teen Outreach Program**, which addressed twelve positive youth development constructs including social, emotional, cognitive, behavioral and moral competencies, bonding, self-efficacy, opportunities for prosocial involvement, prosocial norms, positive identity, belief in the future, and self-determination.

Program Description

Although the focus of program evaluation and measurement was on preventing teen pregnancy and academic failure, the theoretical focus was a developmental approach

based on Helper Theory (defined as “empowerment”) and Social Development Theory (defined as “promotion of autonomy and identification with others”). The evaluation predicted that students would be empowered by having the opportunity to be help-givers, rather than help-receivers. The program involved adolescents in volunteer activities; classroom discussions centering on various age-appropriate issues and service experiences (understanding yourself and your values, life skills, dealing with family stress, human growth and development, and issues related to social and emotional transitions from adolescence to adulthood); and class activities promoting program goals (group exercises, role plays, guest speakers and informational presentations). The volunteer component included such activities as working in hospitals, peer tutoring, and participation in walkathons. Students were required to provide a minimum of 20 hours per year of volunteer experience, but averaged 45.8 hours over the course of the program, with the median participant performing 35 hours of service. Positive youth development strategies included skills training in coping, decision making, self-management and life skills (competence, self-efficacy, opportunities for prosocial involvement); tutoring (bonding and competence); and techniques for and shifting peer group perceptions and norms (prosocial norms). Goals included promoting children’s empowerment (self-determination), autonomy and identification with others (positive identity and bonding). Classroom discussions occurred at least once a week throughout the year.

Research Design

The study used an experimental design in which 25 schools nationwide were randomly assigned to conditions from 1991 to 1995. The evaluation did not include a follow-up period; all data were measured at immediate posttest following a one-year (school year) intervention. Prior to this evaluation, a number of evaluations of Teen Outreach had suggested promising results, but each was subject to design limitations. One purpose of this study was to address concerns generated from the limitations of the previous research. Students were randomly assigned to either Teen Outreach participation or the control condition either at the student level or occasionally, at the classroom level. At the student level, sites had more students sign up for the intervention than could be accommodated in the program and participants and controls were randomly selected by picking names out of a hat or choosing every other name on an alphabetized list. Students entered the program in various ways, as part of their health curricula, as an academic elective, through teacher/guidance counselor suggestion, or as an after-school activity. Approximately 10% of sites contacted regarding the random assignment procedure participated; the remaining sites did not want to participate in random assignment or did not have enough interested participants. There were 342 program participants and 353 control group participants at study entry, all in grades nine through 12. The program group was 86% female and the control group was 83% female. The intervention group was 17% Caucasian, 67.7% African American, 12.9% Hispanic, and 2.4% of another ethnic identity. The control group was 20.4% Caucasian, 66.6% African American, 9.6% Hispanic, and 3.4% of another ethnic identity. Students were assessed at the start of the school year and at program exit during late spring. Attrition analyses showed 5.3% attrition among program participants and 8.4% among comparison students. Students who dropped out of the study were not significantly different from those who remained either

in history of class failure, ethnicity, parents' educational levels, or household composition. However, those who left were more likely to have had or caused a prior pregnancy, to have been suspended, to have been younger, and to have been male. Although three sites were dropped from the analyses due to significant differences in entry characteristics or failure to recontact large numbers of youth in the control groups, the authors conducted substantial alternative analyses which lent confidence to their findings.

Results of the Intervention

Self-report questionnaires provided information on changes in problem behaviors, including school failure, suspensions and pregnancy. The same questions were asked at pre and posttest, except the pregnancy question referred only to one year and a question was added to identify students who had dropped out or intended not to return to school in the prior year. Significant decreases were found for the experimental group on measures of school failure (31% vs. 37%, $p < .001$), school suspension (16% vs. 21%, $p < .001$), and teen-pregnancy (3.2% vs. 5.4%, $p < .01$), compared with the control group. The authors reported cost data, stating that a full academic year of the program to a class of 18 to 25 students cost approximately \$500 to \$700 per student.

EFFECTIVE PROGRAMS IN THREE SOCIAL DOMAINS

Family, School, and Community

- ◆ Across Ages
- ◆ Adolescent Transitions
- ◆ Midwestern Prevention Project
- ◆ Project Northland
- ◆ Responding in Peaceful and Positive Ways
- ◆ Valued Youth Partnership
- ◆ Woodrock

Family, Church, and Community

- ◆ Creating Lasting Connections

School, Community, and Work Setting

- ◆ Quantum Opportunities Program

EFFECTIVE PROGRAMS IN THREE SOCIAL DOMAINS

Nine effective programs combined their strategies across three settings. Seven programs were conducted in combined family, school, and community domains: **Across Ages, Adolescent Transitions Project, Midwestern Prevention Project, Project Northland, Responding in Peaceful and Positive Ways, Valued Youth Partnership, and Woodrock Youth Development Project.** These multiple-domain programs successfully promoted positive youth development strategies in school, incorporated parent or family involvement, and used community strategies or settings. One program, **Creating Lasting Connections**, combined family, church, and community, and one program, **Quantum Opportunities**, combined school, workplace, and community.

Summary of Family, School, and Community-Based Positive Youth Development Programs

The analysis of school, family and community-based interventions identified seven programs that were well evaluated and showed significant effects on youth outcomes. The family-school-community programs promoted positive youth development constructs and strategies across the three domains, incorporated parent or family involvement, and used resources or opportunities from the local communities in which the children lived. Five of the seven programs (Across Ages, Adolescent Transitions, Project Northland, Responding in Peaceful and Positive Ways, and Woodrock) used experimental research designs, assuring confidence in the internal validity of the observed outcomes.

The school-family-community interventions were frequently based in schools, used units of assignment tied to the schools (e.g., classrooms), and used the school component strategically to tie in the family and community components. These programs typically placed emphasis on the careful integration and monitoring of individual and group strategies across all three domains. For example, in Across Ages, the quality and structure of the interactions between the child's mentor and the child's parents were considered as important to successful outcomes as the school-based curriculum. Programs generally tried to introduce protective factors into all three settings. While the children were being taught skills, or other youth development strategies were addressed in the program's youth development framework, parents were the focus of efforts to bolster family competence, parent self-efficacy, bonding and alignment with prosocial norms, and local communities were the focus of efforts to use community assets, resources, and partnerships to enhance the success of the other strategies. In ways similar to those described in the school- and family-domain programs, parents in these programs were typically engaged either through direct parent training or involvement in program implementation or organization. However, unlike the two-domain school-family interventions, these programs were generally based on program principles that stressed the importance of addressing community risk and/or protective factors as an integral part of producing successful youth outcomes. As in the school-community domain programs, these interventions incorporated communities either through using their social, economic

or physical resources, or targeting specific community risk factors, or attempting to influence community-level policies and practices. More than half of these programs (Across Ages, Midwestern Prevention Project, Valued Youth Partnerships, Woodrock) emphasized the development of strategic relationships or partnerships with the community.

These programs produced improvements in positive youth outcomes including more positive attitudes about older people and higher levels of community service (Across Ages); higher levels of social skills learning (Adolescent Transitions) and school attendance (Across Ages); greater self-efficacy with respect to substance use refusal (Project Northland); higher reading grades and cognitive competence (Valued Youth Partnerships); and improvements in race relations and perceptions of others from different cultural or ethnic groups (Woodrock). These interventions also had a significant impact on the reduction or prevention of problem behavior in children. Four programs changed attitudes and practices related to substance use (Across Ages, Midwestern Prevention Project, Project Northland, and Woodrock). One program successfully changed negative family interaction patterns and reduced levels of family conflict (Adolescent Transitions). Two programs reduced either school suspension or drop-out rates (Responding in Peaceful and Positive Ways and Valued Youth Partnerships). Two programs reduced aggressive and violence-related behaviors and/or attitudes (Adolescent Transitions, Responding in Peaceful and Positive Ways). Three programs reduced levels of cigarette, marijuana, and/or alcohol use (Midwestern Prevention Project, Project Northland, Woodrock).

Programs in Three Social Domains: **Family + School + Community**

Across Ages

LoSciuto, Rajala, Townsend and Taylor (1996) evaluated **Across Ages**, an intervention that addressed 11 positive youth development constructs, including social, emotional, cognitive, and behavioral competencies, bonding, resiliency, self-efficacy, recognition for positive behavior, positive identity, opportunities for prosocial involvement, and prosocial norms.

Program Description

The program's theoretical foundation integrated positive youth development, youth identity development, social problem-solving, and the social development model: strengthening protective factors in the individual, the family, the school, the peer group, and the community/neighborhood was expected to increase resiliency in children. The goal of Across Ages was to demonstrate the impact of an intergenerational mentoring approach to drug prevention for high risk sixth grade students. Program components included mentoring for at least two hours twice a week for the school year (bonding, opportunities for prosocial involvement) by adults 55 years old or older; one hour every two weeks of community service activities with the mentor (opportunities for positive involvement); 26 sessions of exposure to the Social Problem-Solving model

(competencies) as used by Weissberg and Caplan (1988) in the Positive Youth Development Curriculum; parental involvement and strengthening parent-child bonds by coaching parents in more effective parenting styles (opportunities for prosocial involvement, recognition for positive behavior, bonding, competencies) during Saturday workshops. The program also focused on developing positive relationships between mentors and parents.

Implementation

Workshops were held for teachers on the use of the Social Problem Solving Model. Teachers rated students on how much they participated in the positive youth development curriculum and community service sessions, and project staff rated mentors

on the level of involvement with each student. Parental participation was not assessed due to its being “sporadic” and not providing sufficient information for analysis.

Research Design

The study used an experimental pretest, posttest research design. At the time of evaluation, data had been collected for three years and there were two years remaining in the project. Experimental and control group classes were selected randomly from among sixth grade teachers in three schools who had indicated a willingness to participate. Three classes in each school were selected randomly from the remaining pool of sixth grade classes and assigned to one of three groups, two intervention conditions and a control condition. One intervention group (PS) received the Positive Youth Development Curriculum, community service and parent workshop components, and the other intervention group (MPS), received those components and mentoring from older adults. Mentors were carefully recruited, screened, trained and matched with the youth. The program was successful at retaining mentors, with two-thirds of the mentors at evaluation having been in the program since its inception four years earlier. Data were collected for the 1991-92, 1992-93 and 1993-94 academic years and combined in this evaluation. Pre-intervention group equivalence was established. Attrition rates were similar for all groups (Group C, 23%; Group PS, 22%; and Group MPS, 25%). For the three evaluation years, a total of 729 students completed the pretest. The final sample use in the evaluation consisted of 562 students who completed both the pretest and the posttest (77% of those originally pretested). The sample of 562 children were sixth grade students attending three public middle schools in Philadelphia neighborhoods. The target population included African American (52.2%), Asian (9.1%), Latino (9.0%) and Caucasian (15.8%) students, 180 of whom were served by Across Ages each year for three years. The neighborhoods were characterized by poverty, a high incidence of substance abuse and drug related crime, and a significant number of abandoned houses. In each school, student achievement was low and attendance poor. Many children were living with grandparents or other relatives (percentages not specified). Fifty-three percent of students who completed both the pretest and posttest were female. Approximately equal numbers of students completed both the pretest and posttest in each of the three experimental groups (189 in the control group, 193 in Group PS and 180 in Group MPS).

Results of the Intervention

The evaluation reported significant outcomes using ANCOVAs that compared two groups at a time. The authors hypothesized that one of the two intervention conditions, the combined mentoring-problem solving (MPS) group, would show more positive outcomes compared with the control group, and also when compared with the other intervention condition. The reported results showed significant effects for the combined group condition when compared with the control group on a number of measures. The combined condition also showed several significant improvements compared with the other intervention. The significant outcomes for the combined MPS group compared with the control included increased positive attitudes ($F(1,316) = 4.34, P=.038$) on four dimensions (school, the future, elders, and older people); increased knowledge about older people ($F(1,313) = 7.04, p=.008$); improved reactions to situations involving drug use ($F(1,271) = 4.17, p=.042$); and higher levels of community service ($F(1,208) = 5.10, p=.025$). The combined mentoring-problem solving condition also reported significantly better results compared to the other intervention condition for attitudes toward older people ($F(1,316) = 6.36, p=.012$). Having a mentor and participating in the MPS intervention significantly improved school attendance for youth in that intervention condition, compared with both control and the other intervention group ($F(2,447) = 4.58, p=.01$). The problem-solving condition significantly improved their knowledge about older people compared with controls ($F(1,368) = 5.32, p=.022$). Within-group analyses of the mentoring group on mentor/student bonding measures showed that level of mentor involvement was positively associated with improved school attendance ($F(2,138) = 25.03, p=.000$).

The Adolescent Transitions Project

Andrews, Soberman and Dishion (1995) evaluated the **Adolescent Transitions Project**, a program that addressed eight positive youth development constructs including social, cognitive, and behavioral competencies, bonding, self-efficacy, recognition for positive behaviors, opportunities for prosocial involvement, and prosocial norms.

Program Description

The intervention used a parent and youth skills training model designed for substance use and problem behavior prevention. The evaluation reviewed two deliveries of the program, one in a community mental health setting and one in a school setting, but presented outcome data on only the first delivery. The main intervention components in both versions were the Parent Focus and Teen Focus conditions. Intervention groups targeted predictors of problem behavior, including family management practices, communication, limit setting, problem solving, goal setting, and dealing with negative peer influences. Parent consultants were used to assist group leaders. The Parent Focus curriculum combined three sets of family management skills, including prosocial fostering, limit-setting, and problem-solving. The Teen Focus component was developed from a Botvin & Wills cognitive-behavioral curriculum created in the mid 1980s. The curriculum emphasized behavior modeling by employing a peer counselor who had successfully completed the modeling component. Adolescents learned self-regulation skills including

realistic and incremental goal-setting and problem-solving. The program included 12 sessions of curriculum with 18 hours of contact total. The evaluation contained comprehensive implementation data on participation, program retention, parent and teen engagement, and satisfaction with the program.

Research Design

The evaluation used an experimental, pretest posttest design. A cluster sampling approach was used first and followed by random assignment to conditions. Parents were recruited through newspapers, community flyers, school counselors, and other community professionals. Following parent inquiry, a telephone screening was conducted using a 10 question instrument based on risk factor research (Bry, McKeon & Pandina, 1982). If the child was assessed as at risk on at least four dimensions, the family was randomly assigned to one of four intervention conditions: Parent Focus, Teen Focus, self-directed change, and a control group. Interventions were conducted over two years, with four cohorts of approximately 30 families per cohort. Each intervention group consisted of approximately seven to eight families. Boys and girls received assignments separately to assure equal distribution of gender across conditions. The attrition analysis showed program retention was 90%; this meant 143 of 158 families were represented in the termination assessment. The data revealed no significant differences between families who stayed and those who left. The sample of 143 families resulted in a youth sample of 83 boys and 75 girls between ages 10 and 14, enrolled in middle schools containing sixth through eighth grades, with the mean grade level for the sample being seventh grade. Ninety-five percent of the sample was European-American. Other demographic information was not provided in the evaluation. Approximately one fourth of the families had an annual income of less than \$10,000 and more than half the families received governmental financial assistance. Approximately 50% of mothers and 45% of fathers had some college education.

Results of the Intervention

Results were assessed through child behavior inventories, audiotaped problem-solving scenarios and videotaped family problem-solving sessions. Outcomes were reported for participant engagement and satisfaction, skills acquisition, family interaction patterns, and changes in family conflict. Both the Parent and Teen components were shown to be effective in engaging both parents and teens, teaching the targeted skills, and reducing parent-child conflict. The Parent component had a short-term effect on reducing teen problem behavior in school. The Teen Focus condition did not demonstrate a significant effect on the students' problem behavior in school, but youth in the Teen Focus condition demonstrated higher social learning scores ($F(1,140) = 5.76, p < .05$). Youths' negative engagement was reduced significantly when parents participated in the Parent Focus intervention, while control group youth increased in negative engagement ($F(1,107) = 5.27, p < .01$). The same pattern of effects occurred in the Teen Focus intervention, with a reduction in their negative engagement with parents compared to the inactive intervention conditions ($F(1,114) = 4.89, p < .05$). Fewer than one half of fathers participated in the videotaped family interaction, and analyses were restricted to mothers' behavior. Mothers who were exposed to both the Teen ($F(1,113) = 6.51, p < .01$) and Parent ($F(1,106) = 7.1$,

$p < .01$) Focus conditions showed less negative engagement in the family interaction, compared to mothers in the control condition who tended to increase their negativity. Those in the Parent Focus condition reduced conflict levels ($F(1,101) = 10.95$, $p < .001$) from pretest to posttest. There was a decrease in family negative events for families in this intervention condition while negative events increased for those in other conditions. The Teen Focus group also yielded significant reductions in family conflict ($F(1,118) = 8.1$, $p < .005$) compared with the control group, and significantly fewer family negative events ($F(1,107) = 6.54$, $p < .01$). Teacher ratings of child behavior revealed effects specific to the Parent Focus condition. Teens with parents in this program condition reduced their rate of aggression, while teens in the inactive intervention conditions were rated as more aggressive at posttest ($F(1,106) = 5.33$, $p < .05$).

The Midwestern Prevention Project - Project STAR – Kansas (MPP)

Pentz, Dwyer, Johnson, Flay, Hansen, MacKinnon, Chou, Rohrbach and Montgomery (1994), Pentz, et al. (1989), and Pentz, Trebow, et al. (1990) evaluated the implementation and five-year follow-up results of the **Midwestern Prevention Project - Project STAR – Kansas (MPP)**. The multi-year intervention addressed seven positive youth development constructs including social, cognitive, and behavioral competencies, self-efficacy, recognition for positive behaviors, bonding, and prosocial norms.

Program Description

In the 1984-1985 school year, the MPP was initiated in 50 public middle/junior high schools and 15 communities. The components of this comprehensive intervention included mass media programming, a school-based educational program for students, parent education and organization, community organization and health policy. The STAR Program consisted of five components implemented over five years at the average rate of one per year while mass media program was used in all years of the intervention. The school program involved 20 hours of direct contact with students and their parents in the first and second years (10-session school program for resisting and counteracting drug use influences and 10 hours prevention practice homework activities with parents). Community organization activities created metropolitan task forces against drug use in the third through the fifth years. Mass media coverage included 16 television, 10 radio and 30 print media events throughout the program delivery period. Two hours of training were provided to television station managers. An average of 31 mass media programs per year occurred in the first through the third years, decreasing to 10 per year in the fourth and fifth years. This entailed news clips, commercials, talk shows, press conferences and articles covering baseline drug use and STAR goals in Kansas City, introduction of each program component, skills demonstration, and public recognition of participating students. Tobacco and alcohol policy changes occurred in the fourth and fifth years.

Research Design

The evaluation used a quasi-experimental, partial randomized control trial that varied the intervention condition (prevention program or delayed program control with health education as usual) and the school grade of the children's initial intervention (grade six or

seven, depending on which represented the transition year from middle or junior high school). The MPP measurement design consisted of annual assessments of several different youth samples. The universal population of students was initially selected from 50 schools in 15 communities, but the study design led to only eight out of 50 being randomly assigned (schools were assigned to conditions based on school administrator scheduling flexibility after the start of the school year). The rest of the assignments used demographic matching and relied on the flexibility of schools to implement the intervention. Twenty-four were matched and assigned non-randomly to program schools and 18 were matched and assigned non-randomly to control schools. For measuring longitudinal effects of the intervention on the entire population, two of these samples were merged: a panel consisting of all students from the 1984-1985 entering grade cohort in eight schools who were tracked individually over time ($n = 1607$) and a 25% sample of students from the 1984-1985 cohort in the remaining 42 schools, who were cross-sectionally and randomly sampled by classroom each year ($n = 3771$ in 1984-85). The middle or junior high school was the unit of assignment for the initial intervention. Of an average of 4664 students targeted for assessment, 94% received annual parental consent for participation. The final sample at posttest had an ethnic group representation that was 76.6% white, 19.2% African-American, 49.3% female, 60.9% low SES, 22.6% in sixth grade, and 60.8% urban. At two years into the intervention 63.6% of the sample were enrolled in schools different from the schools of origin.

Implementation

The Midwestern Prevention Project conducted extensive implementation methods and measures. Teachers were selected to implement the intervention based upon whether they had primary responsibility for teaching health education courses or, in schools where formal health education was not offered, responsibility for teaching courses in which health education matter could be most easily assimilated; and course loads which reached all students in the target grade. Program teachers received an initial three-day workshop and a one-day refresher workshop on school and booster program implementation, including drug prevention skills and program delivery. Program teachers provided training to two to four peer leaders per class in a one-hour training session. Training was followed by program staff making monthly phone calls to teachers and periodic meetings with principals. The parent program was implemented as a series of planning meetings chaired by the principal and attended by two to four parent representatives and two STAR program students. An annual Parent Skills Night was offered for all parents of STAR program students. Principals, parent representatives and student representatives received an annual one-day workshop on parent program implementation. In addition to training parents in parent-child communication and prevention practice support skills, multiple methods were used to incorporate parents at an organizational, system-wide level. Parents were mobilized to change school policies about institutionalizing drug prevention curricula and restricting drug use in and around schools.

Results of the Implementation Analysis

Implementation analyses reported data from parent phone calls and meetings of STAR program staff with principals; observations of program sessions and content analyses of

media events by an MPP project archivist; program implementation evaluations completed by teachers (self-report surveys) and parent group members (phone survey interviews); and a consensus rating of overall program implementation quality by three STAR program staff members. The investigators used three operational definitions for implementation: adherence (was the intervention only well implemented in the experimental and not the control conditions?), exposure (what was the amount of the intervention that was delivered?), and reinvention (how much does the implementation in question differ from the program standard that is being tested?). Sixty-five teachers from 27 program schools were trained to implement the program, and in questionnaires administered immediately post training, all teachers reported that they had been “very adequately” or “moderately adequately” prepared to implement the program. Program implementation effects were estimated for prevalence rates of drug use, with school as the unit of analysis. To generate school level data on implementation, individual teachers’ ratings were averaged within each school. Teacher reports showed that all twenty-seven schools assigned to the program condition implemented the program during the school year as planned. Staff reports confirmed implementation by all program schools, and also confirmed that the twenty-three control schools adhered to the control condition design. The number of sessions implemented by program schools ranged from three to 10 with a mean of 8.76 sessions (2.06 SD). Average length of time per session was forty minutes. Program exposure ranged from 2.75 to 9.17 hours with a mean of 6.47 (1.74 SD). Of the teachers, 100% responded that they had not deviated substantially from implementation as designed (32% deviated “not at all” and 68% deviated “slightly”).

Results of the Intervention

The program was evaluated as an entire intervention package; however, it should be noted that one of its components, the community organization and mass media coverage, were available to both program and control students and therefore limits the external validity of the program. Outcome data came from self-report survey of substance use, biochemical measure of smoking, and school records. Results showed the intervention significantly reduced monthly, weekly, and heavy cigarette, marijuana, and alcohol use through three year follow-up ($p < .05$). There was some decay of effect at four year follow-up which corresponded to a decrease in control group use. By the five year follow-up the increase in the proportion of students reporting use continued to be significantly higher in the control group than the program condition on all of the monthly drug use measures as well as for weekly cigarette use. The exceptions were the effects on daily cigarette use and heavy marijuana use. Results assessing the impact of varying implementation rates on substance use were highly significant. Schools with a high level of implementation had little or no increase in rates of weekly use of substances and a decrease in the use of cigarettes in the last month (compared to increases for low implementation and control groups). Six years after MPP began, the increase in substance use prevalence rates for the 1984 cohort of intervention school students continued to be lower than control schools, with average reductions of 8.4% in monthly use, 5.7% in weekly use, and 4.9% in heavy use for cigarettes, alcohol, and marijuana.

Project Northland

Perry, Williams, Veblen-Mortenson, Toomey, Komro, Anstine, McGovern, Finnegan, Forster, Wagenaar and Wolfson (1996) evaluated **Project Northland**, a family, community and school-based intervention that addressed eight positive youth development constructs including social, emotional, cognitive and behavioral competencies, bonding, self-efficacy, opportunities for prosocial involvement, and prosocial norms.

Program Description

The intervention was conducted over a three year period, beginning in the sixth grade in fall of 1991 and continuing through seventh and eighth grade. Although the program's focus was on preventing substance abuse, particularly seeking to influence children's choices about using alcohol and cigarettes, Project Northland used many strategies that simultaneously promoted positive youth development. Strategies were designed to influence psychosocial factors such as peer influence, self-efficacy, child-parent communication, and perceived ease of access to substances. The study used a multi-level, multi-component, community-wide approach. Students received many forms of skills training intended to enhance their competence in dealing with their parents, and with peer pressure and normative expectations about alcohol. In addition to specific skills development, the intervention addressed community-level changes in alcohol-related programs and policies. The school component used a social-behavioral curriculum, homework, peer leadership training, parental involvement/education, and community-wide task force activities ("Slick Tracy," "Fun Night," "Amazing Alternatives," "PowerLines").

Research Design

The study employed an experimental, delayed control group design. Twenty combined school districts were blocked by size (small, medium, large, very large) and randomized to either an intervention or delayed condition (N=10 in each group). This was made possible by combining four of an original 24 districts with other districts to generate an adequate sample size in each unit to be randomized. Annual surveys were used to measure alcohol use, tobacco use and psychosocial factors. Comparison group schools were allowed to use other programs such as DARE or Project Quest until 1994 when they implemented Project Northland. In a 1992 survey, over 90% of these students reported having taken part in DARE (40% in intervention districts) and 21% had taken part in Quest (compared to 2% in intervention districts). The study appropriately matched unit of analysis and assignment (school district). Tests were performed to assess group equivalence and showed pretest equivalency on a number of key variables. Group differences showed that, at baseline, more students in the intervention districts reported alcohol use, were slightly older (0.1 years older), and had fewer white students than in the reference districts. Of the 2351 students measured at baseline, 93% (N=2191), 88% (N=2060) and 81% (N=1901) were surveyed at the end of the sixth, seventh and eighth grades respectively. The attrition analysis showed that of 450 (19%) lost to follow-up at the end of the eighth grade, 231 (51.3%) were in the intervention condition and 219

(48.7%) were in the control condition. No significant differences were noted in baseline alcohol use between those who were lost to follow-up in the intervention vs. the control conditions, or between those who were lost to follow-up and those who remained.. Of the 450, 278 (62%) had moved, 31 (7%) were absent, 42 (9%) had moved to a Project Northland school in a different treatment condition, 87 (19%) refused or were not allowed by their parents to participate and 12 (3%) were deleted from the analyses due to three or more inconsistent responses. The final sample consisted of 1901 students in grades six to eight from 20 schools in northeastern Minnesota. Students belonged to two ethnic groups, with 94% Caucasian and 4.5% Native American.

Implementation

Implementation was extensively addressed and measured. Teachers and peer leaders received training before the program was implemented. Implementation was measured through exposure and participation indices completed by parents and teachers.

Results of the Intervention

The primary effects of the intervention were measured with self report questionnaires given to students and parents. Other forms of measurement included observations of alcohol purchase attempts by underage buyers, telephone surveys of alcohol merchants, and interviews with community leaders. However, only the self-report questionnaires were included in the evaluation. The analyses were based on comparisons among all students, and among baseline non-users and baseline users.

For all students in the intervention districts, there were significantly lower scores on the alcohol scale by the end of eighth grade than control district students (16.0 vs. 17.5, $p < .05$, on a 8-48 scale where 8 was no tendency to use, and 48 was high levels of use). The scale score was also significantly lower among baseline non-users in the intervention districts compared with the control districts (13.8 vs. 15.3, $p < .01$). For all students, the percentages who had lower alcohol use in the past month (23.6% vs. 29.2%, $p < .05$) and past week (10.5% vs. 14.8%, $p < .05$) were significantly better in the intervention districts compared with the control districts. In the intervention districts, there were lower onset rates for baseline non-users in the past month (15.3% vs. 21.2%, $p < .05$), and the past week (5.3% vs. 9.8%, $p < .01$) by end of eighth grade, and lower past year use for baseline non-users at the end of seventh (21.1% vs. 29.1%, $p < .05$) and eighth (30.4% vs. 41.6%, $p < .006$) grades. Non-users had lower rates of marijuana use (3.1% vs. 6.2%, $p < .05$) and cigarette use (15.5% vs. 20.7%, $p < .05$) in the intervention districts. There were no significant differences between conditions for all students in cigarette use, smokeless tobacco, or marijuana use. Positive changes for alcohol-related knowledge and attitudes were linked to resisting peer influence. Among all students, those in the intervention districts had significantly lower scores on peer influence by the end of eighth grade (24.6% vs. 27.0%, $p < .05$). Intervention students were significantly more likely to report being able to resist alcohol in social settings even though the self-efficacy scale showed no significant differences between groups. Among baseline non-users, students in intervention districts had significantly lower scores by eighth grade on peer influence (22.8% vs. 25.4%, $p < .05$) and higher scores on self-efficacy (21.6% vs. 20.4%, $p < .05$). By the end of sixth grade, intervention district students were significantly more likely to

report that their parents talked with them about drinking related problems. Among all remaining psychosocial variables for all students, only one finding was significant, the greater likelihood of being disciplined by school for consequences of driving after drinking (2.5% vs. 2.2%, $p < .001$). Baseline non-users in intervention districts at the end of eighth grade were more likely to say they had influence in their communities on alcohol-related issues than baseline non-users in the control condition.

The Richmond Youth Against Violence Project/Responding in Peaceful and Positive Ways (R.I.P.P.)

Two evaluations of **The Richmond Youth Against Violence Project** (Farrell & Meyer, 1998, 1997) assessed the effectiveness of a multiple-domain, school-based intervention called "**Responding in Peaceful and Positive Ways**" (R.I.P.P.). The intervention addressed 10 positive youth development constructs, including social, emotional, cognitive, behavioral and moral competencies, bonding, prosocial norms, self-efficacy, opportunities for prosocial involvement, and recognition for positive behavior.

Program Description

This review analyzed two evaluations of the R.I.P.P. curriculum, one using 1993-94 data and the other, 1995-96 data. The intervention described in the evaluation of 1995-96 outcome data represented an expanded 25-session version of an earlier 16-18 session program originally developed from Prothrow-Stith's (1987) violence prevention model and concepts from "The Friendly Classroom for a Small Planet" (Children's Creative Response to Conflict, 1988). R.I.P.P. is an ongoing, multi-year intervention that the program authors described as a "developmentally-anchored health promotion model" (1996:13). The initiative of which R.I.P.P. is part began in 1991 as a broad collaborative effort between the Richmond Public Schools, the Richmond Behavioral Health Authority, and Virginia Commonwealth University. In 1993 this collaboration was expanded through a cooperative agreement with the National Center for Injury Prevention and Control within the Centers for Disease Control and Prevention.

The expanded 25-session curriculum was based on the results of an evaluation of the earlier 18-session model. The expanded curriculum used standardized manuals and sought to address gender differences at the level of curriculum development and personnel training; to increase intensity in order to produce a stronger effect; to have clearly stated objectives; to have a firm base in research and theory about adolescent violence; to be sufficiently standardized in order to minimize differences in interpretation of the program's content; and to emphasize how students can use the skills they learn in the program outside of school and throughout their lives. The components included adult role modeling (prosocial norms, bonding), peer mediation (opportunities, bonding and competence), team-building activities (bonding, competence, and opportunities), relaxation techniques (emotional competence), small group work (bonding and opportunities), role plays (opportunities and competence), and cognitive restructuring methods such as mental rehearsal. The program also provided staff development and parent training in non-violence and conflict resolution methods. Students worked with a trained prevention specialist who implemented the R.I.P.P. curriculum once a week,

modeled and reinforced appropriate non-violent behavior in the schools, promoted a caring community of students and adults, and supported prosocial norms and expectations. The specialist also implemented a school-wide peer mediation program available to all students at each school.

Research Design

The intervention used an experimental design conducted at three middle schools in Richmond during the 1995/1996 school year. The intervention was implemented with half the sixth grade students at each participating school and in each school the classes were randomly assigned to either the intervention or control groups. The initial sample included 295 intervention and 307 control group members. Data from 23 intervention students were removed when they were determined to have missed more than a third of the sessions. Analyses showed that these students had significantly higher rates of suspensions, lower grade point averages and attendance, and higher frequencies of violent behavior. The final sample of 579 sixth grade students at three urban middle schools consisted of even numbers of boys and girls in the intervention (n=135 boys, n=137 girls) and control (n=154 boys, n=153 girls) groups. Students ranged in age from 10 to 15, and 96% were African-American. There were no significant differences between the intervention and control groups on ethnicity, gender or age. Complete data were ultimately available on 455 students, and analyses compared the 124 students with incomplete data. Although there were no gender or ethnicity differences, students with incomplete data were significantly older, had lower grade point averages and school attendance, had more violations for fighting and weapons, and more suspensions.

Short Term Results of the Intervention

Data included school code violations for fighting, assaults, weapons in school, and school suspensions, and self-report measures of self-restraint, nonviolent responses, violent behavior, and attitudes supporting violence. All weapons violations except one occurred in one school, so this school alone was used in that analysis. Results at immediate posttests showed that program participants had significantly fewer disciplinary code violations in the last quarter of the year for fighting (2.2% vs. 5.2%, $p < .05$) and carrying weapons (1.9% vs. 7.4%, $p < .04$), and lower rates of in-school suspensions (1.5% vs. 5.5%, $p < .01$) compared to the control group. Program participants also improved their knowledge of the intervention material ($F(1,299) = 56.66$, $p < .001$), used their school's mediation program more frequently (42% vs. 30%, $p < .05$), and reported significant reductions in fight-related injuries relative to the control group (4% vs. 9%).

Preliminary Six-Month Follow-Up Results

Unpublished data (Farrell, 1998) for all three time points (pretest, posttest and follow-up) were available for 353 students (R.I.P.P. n=169; control n=184). Significant effects for posttest to 6-month follow-up changes were found for the knowledge test, the violent behavior frequency scale, the suppression of anger scale, and the frequency of threatening a teacher. Several gender-specific effects were also found. For boys there were significant effects for improved impulse control, frequency of drug use and an item that asked

students how frequently they skipped school due to concerns for their safety. For girls there was a significant positive effect on the problem situation inventory. School disciplinary data at follow-up also showed significant sustained effects, including fewer in-school (4.8% vs. 11.7%) and out-of-school suspensions (16.5% vs. 21.3%) compared to the control group.

The Valued Youth Partnership Program

Cardenas, Montecel, Supik, and Harris (1992) evaluated the impact of the **Valued Youth Partnership Program**, which addressed 11 positive youth development constructs, including social, emotional, cognitive and behavioral competencies, bonding, self-efficacy, recognition for positive behavior, positive identity, opportunities for prosocial involvement, belief in the future, and prosocial norms.

Program Description

Comprehensive positive youth development was at the core of the program philosophy, which emphasized the integration of individual and social environmental strategies to help transform a child's self-concept (positive identity). The components of the program included bilingual instruction for limited-English proficient students; a cross-age tutoring component (bonding, competence); classroom enhancement activities; school-business partnerships (belief in the future); increased student recognition of accomplishments and talents (recognition, positive identity); parental involvement in school activities; staff development; leadership models; and self-paced and individualized instruction curriculum. Tutors received classes once a week to develop their tutoring skills, engaged in tutoring at least four hours per week, participated in at least two annual field trips, and attended various presentations by role models. Tutoring groups were generally conducted at a one to three (tutor to learner) ratio. Although specific implementation varied by site, critical elements were identified that all sites adhered to, including weekly classes for tutors with a minimum of 30 sessions per school year, a minimum age and grade difference of three years between tutor and tutee, provision of a stipend, and a flexible curriculum based on students' tutoring and academic needs. The specific goals of the program were to reduce dropout rates, enhance students' basic academic skills, strengthen students' positive perceptions of self and school, decrease student truancy, reduce student disciplinary referrals and form school-home-community partnerships to increase the level of social and emotional support.

Research Design

The evaluation used a quasi-experimental design in which a pool of students was identified based upon being limited-English-proficient as defined by the State of Texas guidelines and reading below grade level on a standardized achievement test. The tutoring group was selected from a pool first based upon scheduling and availability, and then the comparison group was randomly selected from the remaining pool of at-risk students. The sample of 194 participants was drawn from a largely Hispanic population of at-risk limited-English-proficient middle school students on four campuses in two public school districts in San Antonio, Texas. A total of 101 secondary school tutors and 93 comparison

group students, average age 12 years old, participated in the program. The ethnic group composition reported for tutors was 61% Hispanic and 2% Caucasian (remaining percentages and ethnicities not reported); for the control group, 69% Hispanic and 0% Caucasian (remaining percentages and ethnicities not reported). While 33% of the tutors reported having been retained a grade at baseline, 42% of the control group had. Baseline data showed no significant differences between tutors and comparison group on age, average grade in reading, quality of school life and self-concept scores, ethnicity or retention. The only statistically significant difference between the two groups at baseline was eligibility for school-lunch program with the tutor group having lower socioeconomic status than the comparison group. At posttest, only 63 of 101 tutors and 70 of 93 control students had data for reading, self-concept and quality of school life.

Implementation

Implementation teams were given clear roles and customized guidelines for each implementation team member. The evaluation component of the program had a structured implementation component to measure program operations and develop corrective action as needed.

Results of the Intervention

Posttest data were collected on student grades, disciplinary action referrals, absenteeism, self-concept, and quality of school life. The Valued Youth Partnership study showed significant impacts for tutors, particularly in reducing dropout and improving reading grades. Results of the reading grades data were analyzed only for those students who had data for reading, self-concept and quality of school life (63 tutors and 70 comparison group students). Being in the tutor group led to significantly higher reading grades after the first year, which continued in the second year: the tutors scored on average nearly three points higher than the comparison group ($p < .05$). Tutors' self-concept ($p < .05$) and attitudes toward school ($p < .01$) also improved, but their gains were seen only in the first year, leveling off during the second year. The drop-out rate decreased, with one tutor out of 101 (1%) of the tutors having dropped out by the end of the second year of the program compared to 11 of the 93 comparison group students (12%) (p value not provided).

Reported Cost Factors

The study included information on costs: the general budget for a program of 25 tutors and 75 tutored students was approximately \$25,000 plus transportation and per diem, or \$250 per student served. Half of this budget went to tutor stipends and the rest to evaluation (\$3000-5000) and training/technical assistance (\$5000).

The Woodrock Youth Development Project (WYDP)

LoSciuto, Freeman, Harrington, Altman and Lanphear (1997) evaluated the **Woodrock Youth Development Project (WYDP)**, an intervention which addressed eleven positive youth development constructs, including social, emotional, cognitive and behavioral competencies, bonding, resiliency, self-efficacy, recognition for positive behaviors, prosocial norms, positive identity, and opportunities for prosocial involvement.

Program Description

The program is based on Problem Behavior Theory and Social Inoculation Theory, and emphasizes life skills and social competence training while also promoting an anti-drug message and providing broad systems support across all three domains. Intervention components included human relations classes, peer mentoring, extracurricular school activities, and structured interactions between students and teachers, and children and parents. Human relations classes were designed to promote positive self-perceptions (self-efficacy, positive identity), to raise awareness of the dangers of alcohol, tobacco, and drug use and promote healthy attitudes about not using substances (prosocial norms), and to aid in the development of an appreciation of other ethnic and cultural traditions (positive identity). Peer mentoring involved high school students as mentors who tutored younger students and actively engaged them in individualized projects designed to help develop talents and critical thinking skills (competencies, bonding, opportunities for prosocial involvement, recognition for positive behavior). Extracurricular activities included clubs and weekend retreats designed to improve academic performance, provide creative outlets, widen horizons and provide a "space for students to develop positive interpersonal relations" (opportunities for prosocial involvement, competencies, bonding). The school domain involved having youth advocates meet regularly with teachers to help monitor progress and develop goals (opportunities for involvement, recognition for positive behavior). The family domain involved support through home visits designed to build communication and establish parental trust in the program; and parenting classes covering such topics as communication, parent and school relations, and planning summer activities for children (opportunities for prosocial involvement, recognition for positive behavior, competencies). Although the community domain component was not extensively discussed in the evaluation, program materials documented the strong anti-drug norms (prosocial norms) that the Woodrock program seeks to promote in the Kensington community of Philadelphia.

Research Design

The experimental design was a randomized pretest, posttest control-group design. Classrooms within four Philadelphia schools were randomly assigned to program or control conditions. Questionnaires were administered in November, 1994, and again in June, 1995, to students from ages six through nine ($n=170$); and students from ages 10 through 14 ($n=197$). Attrition analyses indicated that there were no gender differences or differences in baseline levels of outcome measures between those who dropped out and those who remained. There was a significant difference in age, with older students being significantly more likely to leave. Dropouts were most likely to be in the program group for the older sample and in the control group for the younger sample. The sample of 367 students (130 experimental; 237 control) remained after 19% of the original sample of 453 students from ages six through 14 (161 experimental; 292 control) was lost to attrition. Participants in the final measurement sample were 46.9% female, 44.4% Latino, 19.9% Caucasian, 11.4% African American, 11.2% Asian, 9.3% mixed or "other" ethnic identity and 1.9% Native American.

Results of the Intervention

The evaluation reported outcomes for two subsamples of different age participants in the Woodrock program. More outcome data have been collected on the total sample and these will be published soon. Our analysis only had the published report on the two subsamples available. In the published evaluation, the authors reported significant positive differences between the intervention and control groups for the younger sample, and mixed results for the older sample, with one statistically significant (non-behavioral) outcome in the wrong direction.

Younger Group. These children were ages six to nine. For three of the five dependent variables (outcomes as a function of the intervention) the results showed statistically significant improvements for intervention group compared to the control group. The intervention group showed a significant change on two drug related measures: use in the last year ($F(1,165) = 4.75, p < .05$) and in the last month ($F(1,166) = 11.70, p < .001$). There was also significant positive change for younger students' relationships with and perceptions of students of races other than their own ($F(1,166) = 4.02, p < .05$).

Older Group. For the older group, there was one positive, statistically significant behavior change for the intervention group compared with the control group: reduced levels of drug use in the last month ($F(1,193) = 8.86, p < .003$). There were no significant differences for drug use in the last year, self esteem or attitudes about race relations. The finding in the wrong direction was on a scale measuring attitudes toward drug use, which for the intervention group participants of the older subsample significantly worsened compared with the control group ($F(1,193) = 10.12, p = .002$).

Programs in Three Social Domains: Family + Church + Community

Creating Lasting Connections

Johnson, Strader, Berbaum, Bryant, Bucholtz, Collins and Noe (1996) evaluated **Creating Lasting Connections**, an intervention that addressed 14 positive youth development constructs, including social, emotional, cognitive, behavioral, and moral competencies, bonding, resiliency, self-efficacy, spirituality, recognition for positive behavior, positive identity, prosocial norms, opportunities for prosocial involvement, and self determination. Evaluators also noted the teaching of cultural competence in the interventions.

Program Description

Creating Lasting Connections was a five-year demonstration project implemented in five church communities for one year to reduce the onset and frequency of substance use and abuse among high-risk 12-14 year olds. The goal was to positively influence resiliency factors in three domains, specified as "church community," "family," and "youth." The program had two integrative components that incorporated system and individual level strategies. System components used mobilization strategies to involve communities in

prevention efforts targeting substance abuse. Individual client components used parent and youth strategies for substance abuse education and communication skills training. Youth skills targeted communication and social self-management with their peers (competence, self-efficacy, bonding), and practice sessions with their parents (bonding and competence). The system component addressed the community domain in a multi-phase strategy for identification, recruitment, selection, formation, and training of families. These processes were implemented by Church Advocate Teams (CATs) “empowered” to participate by helping retain families and evaluate program effects and quality. To address the family domain, the program promoted an increase in parent knowledge and beliefs about substance use (competence); development of family management skills and communication skills (competence, bonding, self-efficacy, opportunities); increased awareness of the impact on youth of family role modeling of alcohol use; parents’ self-reported involvement in community activities with their youth; and use of community services when personal or family problems arose. To address the youth domain, the program promoted youth resiliency by targeting their communication and refusal skills, bonding with family, parent/youth involvement in community activities, and use of community services as resources when the need arose. The intervention had a strong family and community orientation in its methods; parents received more intervention hours than youth. This program included 15 hours of skills training in six sessions of approximately two and one half hours with peer groups and then with parents. Volunteer service providers (CATs = Church Advocate Teams) received an average of 18 hours of training in seven sessions of two and a half hours over eight to 10 weeks. Parents received a total average of 55 hours of training in 22 sessions divided over three objectives: one (AOD Issues Training) of 12-16 hours, one (Not My Child) of 16-20 hours, one (Straight Communications Training—adapted from Say It Straight) of eight to 12 hours with other parents and youth. There was also follow-up consultation and continued support for at least one year, defined as bimonthly phone calls or home visits plus referral service as needed for five to six months.

Research Design

The evaluation used an experimental, randomized block design with a comparison group and three repeated measures. Data were collected in three waves, at baseline, six to seven months after parent and youth training, and after the follow-up case management services were delivered, one year after initiation. Two evaluation designs were used to test nine hypotheses, eight of which were empirically tested. The overall hypothesis was that effects on youth resiliency are produced by the intervention as church communities become more empowered to prevent substance abuse or as the family increases its resiliency and ability to prevent substance abuse. Three addressed direct program effects on family and youth resiliency, three addressed moderating effects on resiliency, and three addressed moderating effects on AOD use among youth. For the eight hypotheses corresponding to program effects on family and youth outcomes, a randomized block design with repeated measures used church community as the blocking variable to control for site differences. Recruited families were randomly assigned to the intervention or the comparison condition in five church communities after completing a baseline interview. The evaluators used co-variates to further assure group equivalency. An extensive

attrition analysis was conducted of individual and family characteristics, risk and resiliency factors from the family and youth domains, and substance use measures among youth. The analysis showed no differential attrition. The sample of 217 African-American and Caucasian youth, ages 12-14, was drawn from a population of families in five church communities in Louisville, Kentucky, and surrounding communities that encompassed both Catholic and Protestant churches with ethnic representation from Caucasian (77%) and African-American (23%) populations. In two pilots and one replication, 246 parents and 131 youth across nine sites were participants in the program. The program was implemented six times among five sites, requiring recruitment of 24 families at each site (12 for the intervention group and 12 for the control group). Data in the final analyses were from 97 parents and 120 youth. Three types of family and youth outcome measures were used to determine program effects on family and youth resiliency: overall direct effects, church community direct effects, and moderating effects. Direct effects included direct effects of CLC on family and youth resiliency outcomes, risk and resiliency factors, and AOD use measures. Interview and questionnaire items came from a standardized battery of AOD items and psychosocial items from the Personal Experience Inventory (PEI), developed by the Chemical Dependency Adolescent Assessment group in St. Paul, Minnesota (Winters & Henley, 1989), and a battery of communication skill items developed by Englander-Golden and Satir (1990).

Results of the Intervention

Three youth resiliency measures showed significant effects for the experimental group over the control group. Intervention youth were significantly more likely to use community services as needed when personal or family problems arose (75% vs. 51%, $p < .001$), to take more action based on the service contact (53% vs. 43%, $p < .001$), and to perceive that the action accomplished something helpful (44% vs. 26%, $p < .001$). There were no significant effects on measures of substance use behaviors. All other significant outcomes were reported as moderating effects divided into family resiliency moderators and youth resiliency moderators. Results of the analyses of family resiliency moderators showed that the onset of all substance use was delayed for intervention group youth for one year as parents positively increased their substance use knowledge and beliefs ($-.38$, $p < .03$) and there was decreased parent-youth conflict ($.25$, $p < .05$). The onset of alcohol use among youth was delayed for one year as parents increased their AOD knowledge and beliefs ($-.36$, $p < .04$), family communication improved ($.30$, $p < .05$), and parent-child conflict decreased ($.34$, $p < .01$).

Programs in Three Social Domains: School + Workplace + Community

Quantum Opportunities Program

Hahn, Leavitt and Aaron (1994) evaluated the **Quantum Opportunities Program**, a four-year comprehensive intervention that addressed 13 positive youth development constructs, including social, emotional, behavioral, and cognitive competencies, bonding, resiliency, self-efficacy, recognition for positive behaviors, positive identity,

opportunities for prosocial involvement, prosocial norms, self-determination, and belief in the future.

Program Description

The program was designed to begin in ninth grade and follow participants through the end of high school. Program strategies included a range of education activities such as peer tutoring (competence, bonding) and computer-assisted instruction; service activities such as community service projects (prosocial norms, positive identity, opportunities), jobs, and helping at public events (positive identity, competence, self-efficacy); and youth development activities, such as mentoring (bonding), life and family skills (competence, bonding, self-efficacy), college and job planning (belief in the future, opportunities). Participants were provided with an adult mentor who provided tutoring and cultural enrichment. Financial incentives were given for participation and milestone completion. Bonding was a major emphasis of the program, typified by mottos like "take up" (others coming behind), "once in QOP, always in QOP," and youth being considered part of the program whether or not they attended. Three-fourths of participants in four demonstration sites participated over 500 hours. The average was 1300 total hours over the four year program.

Research Design

The evaluation used an experimental design in which control and intervention groups were randomly selected from a pool of students going into ninth grade, living primarily in households of single-parent, minority families on welfare. High-schools from which the pools were selected were based upon the proximity to program offices. Fifty students at each site were randomly selected and assigned to either the control or intervention groups. Quantum directors were not allowed to recruit students who had pre-screened themselves into the program, but instead were told to see how many of the 25 youth assigned to the experimental group could be encouraged to join Quantum. Baseline data included demographic characteristics, work experience, school experiences, health knowledge, personal attitudes and opinions, academic skill levels, and functional skill levels. Analysis of the two groups at sample entry indicated that groups were largely free of systematic differences. The attrition analysis showed no significant differences between control and intervention participants who were evaluated in the autumn after program completion (88 remained of 100 members in the experimental group and 82 of 100 in the control group). The sample of 170 ninth to twelfth grade students consisting of 52% female, 75% African-American, 14% Caucasian, 7% Hispanic, 1% Asian, and 2% of another ethnic identity. On average, 94% of the sample had no children, 88% lived with one or both parents, and 78% had a mother or father who had graduated from high school.

Results of the Intervention

The evaluation found significant changes in important youth outcomes over a four year period, most notably in the increases in positive outcomes that favored the experimental group over the control group. Intervention group members had significantly higher high school graduation rates (63% vs. 42%, $p < .01$). Their rates of subsequent college or post-

secondary school attendance rates were larger (42% vs. 16%, $p < .00$), and they received more honors/awards than the control group students (60% vs. 12%, p value missing from report.)

Cost-Benefit Analysis

The evaluation included an extensive cost/benefits study which showed that \$3.68 was gained for every dollar spent if QOP college students earned a degree. If only one-third of QOP college students ultimately earned degrees, the estimated benefit cost ratio was \$3.04 for every dollar spent.

CHAPTER FOUR:

SUMMARY AND CONCLUSIONS

CHAPTER FOUR: SUMMARY AND CONCLUSIONS

The main focus of this chapter is to summarize program and evaluation characteristics of well-evaluated programs (n=25). First, however, we will summarize the reasons that programs or evaluations were excluded from the well-evaluated and effective category.

The second section presents the results of our analysis in summary form. The 25 effective programs are analyzed by constructs, domains, strategies, and other elements of successful youth development programs. When appropriate, we compare these to the other 44 evaluated programs to see in what ways strongly evaluated programs that do produce positive effects are different from the field of other evaluated positive youth development programs.

The third section presents the findings on methodological issues surrounding positive youth development programs. This section covers how evaluations of positive youth development programs addressed research design, statistical methods, attrition, outcome measures, and other important aspects of assessment technology.

Finally we present conclusions and comments concerning future directions for the field, for both positive youth development interventions and for the evaluations that they use.

Evaluations Excluded from the Effective Interventions

Seventy-seven evaluations were identified by this review for analysis; however, eight were sufficiently limited by missing information in key parts of the evaluation that they had to be removed from the summary analyses of programs. Thus 69 programs - 25 well-evaluated programs, and 44 that did not have adequate evaluations - are analyzed. Further, of the excluded programs, although 44 were included in the summary, not all contained complete information that permitted comparisons with the group of effective programs on each dimension. Therefore, depending on the dimension in question, the number of excluded programs used as the basis for comparison will vary slightly (see Appendix J).

Generally, programs were excluded from the effective category based on weaknesses in the evaluation that made it impossible to draw conclusions about the intervention's effects on youth behavior. Or, there was a strong design and no effects were shown. Thus, four types of problems caused placement of programs in this category: (1) evaluation design weaknesses; (2) insufficient behavioral outcome measures; (3) outcomes showing no impact for the intervention, or limited to only measurement of knowledge or attitude changes; and (4) lack of methodological information needed to draw conclusions about program effectiveness. More specifically, some programs (n= 12) had evaluations which received a "medium confidence" designation. This group fell into two sub-sets: one set (n=8) had a reasonable design but provided insufficient data in the report to conclude that the comparison groups were solidly equivalent; the second sub-set (n= 4) was excluded because there was a stronger evaluation of the same program. Another group of programs

(n=19) received the designation of "low confidence" for one of two reasons: either the description of the comparison group did not establish that the intervention and control groups were equivalent (n=10), or there was no comparison group at all (n=9). In addition to these programs with design or methodological issues, some interventions with very strong designs (n=5) were excluded because they had no significant outcomes (n=3), or because their evaluation measured only attitude and knowledge changes, not behavioral outcomes (n=2) (see Appendix K).

Characteristics of Effective Positive Youth Development Programs

Social Domains

There were eight evaluations (32%) of single domain-focused programs, two based in communities and six based in schools. Eight evaluations (28%) reported programs in two domains, one of these combined school and community, and seven of these combined school and family. Nine evaluations (36%) reported programs in three domains, seven combined school, family, and community, one combined family, church, and community, and one combined school, community, and workplace. Thus the total number reporting multiple-domain interventions was 17 (68%).

More than half (21, or 53%) of the excluded programs were in a single domain; about a quarter (10, or 25%) were in two domains, six (15%) were in three, and three (8%) were in four domains.

Representation of the School Setting in Positive Youth Development Programs

Across the possible settings in which effective, well-evaluated positive youth development programs were conducted, the school domain was by far the most widely represented, with 22 (88%) programs basing at least some of their components there. Six single domain programs were based in schools, and 16 multiple-domain programs had a school component. The typical profile of a multiple-domain program that incorporated a school component used the school as a primary base of operations (e.g., for trainings conducted in classrooms), for strategic and consistent access to children, and for access to school resources (e.g., teachers trained to implement the intervention curriculum).

The finding for school domains was similar in excluded programs, with 32 (80%) having some school component.

Representation of the Family in Positive Youth Development Programs

Family domain programs were identified in one of two ways: if the program used some components based in the physical home setting, or if evaluators used other methods not necessarily in the home setting to involve the family or parents. No evaluations were identified of effective single domain programs operating solely in a family setting. However, among multiple-domain programs, the family component was widely represented. Overall, 15 (60%) of the effective programs used family or parent strategies. Among two and three-domain programs, almost all addressed some of their program

strategies to the family or parents (seven of eight of the two-domain and eight of nine of the three-domain).

Only eight (20%) of excluded programs had a family component or operated in a family setting.

Representation of the Community in Positive Youth Development Programs

The community domain was represented in 12 (48%) programs. Two of these programs were based solely in the community, and only one of the two-domain interventions combined community and school strategies. All nine of the three-domain programs incorporated some community-based strategies. The profile of these multiple-domain programs indicated that the community was not typically a primary base of operations for most programs. They used the community's resources and physical opportunities to augment or enhance strategies based in the other domains (e.g., volunteering in the community as a way to practice new principles learned in the school domain). However, these programs were often based on program principles that stressed the importance of addressing community risk and/or protective factors as an integral part of producing successful youth positive youth development outcomes. Communities were incorporated either through using their social, economic, or physical resources; or targeting specific community risk factors, or attempting to influence community-level policies and practices. About half of these three-domain programs (Across Ages, Midwestern Prevention Project, Valued Youth Partnerships, Woodrock) emphasized the development of strategic relationships or partnerships with the community.

Half the excluded programs (20, or 50%) used some community component or operated in the community domain.

Positive Youth Development Constructs

The ways in which interventions addressed "positive youth development constructs" was a primary focus of the analysis. As noted elsewhere in the report, programs did not need to measure these constructs in order to meet the criteria for this review. Had measurement of positive youth development constructs been a criterion, there would have been very few programs to review. Ideally, the program should address these constructs in the intervention, and the evaluation should measure the impact of the intervention on these constructs. Measurement of youth development constructs is one of the most powerful ways to advance the field because of the information it provides on the relationships between the intervention, mediating variables such as positive youth development constructs, and youth outcomes.

Overall Representation of Constructs Across Programs

All of the effective programs in this review addressed a minimum of five positive youth constructs. Most interventions addressed at least eight constructs, and three-domain programs averaged 10 constructs. Three constructs were addressed in all 25 well evaluated programs: competence, self-efficacy, and prosocial norms.

The profile was similar in the excluded programs, with all programs addressing competencies of one or more types. Both self efficacy and prosocial norms had lower averages than the well evaluated programs, but each was still represented in approximately three fourths of those interventions.

Competence

Competence was defined as a child's capacity for acquiring developmentally appropriate skills across social, emotional, cognitive, behavioral, and moral dimensions. All 25 (100%) of the effective, well-evaluated programs addressed one or more of these forms of youth competence. In fact, 100% of the effective programs met the criteria for promoting children's competencies on social, cognitive, and behavioral dimensions. Twenty-two programs (88%) met the criteria for promoting emotional competencies, and eight (32%) met the criteria for promoting moral competence. In those cases in which an evaluation measured a positive youth development construct, that construct was most likely to be a form of competence.

Self-Efficacy

Self-efficacy was defined as youth's perception that one can achieve desired goals through one's own action. Twenty-five (100%) of the effective, well-evaluated programs addressed self-efficacy. During the analysis, significant overlap was noted between those programs meeting the criteria for competence and those for self-efficacy. Typically, most program strategies that promoted a youth's capacity to learn, acquire and master new skills also addressed perceptions of self-efficacy. When an evaluation measured self-efficacy, two things could be noted. First, self-efficacy was typically generated from a self-report index, and self-efficacy was almost always grouped with measures of attitudes or beliefs, rather than designated a behavioral measure.

Prosocial Norms

Prosocial norms are defined as healthy standards and clear beliefs. Programs typically addressed these through delivering messages about healthy expectations from peers or adults, or by stressing the importance of knowing how to respond appropriately to negative peer influences. The positive youth development construct of promoting prosocial norms in youth was tied with competence and self-efficacy for the highest representation among all interventions: 25 (100%) of the effective, well-evaluated programs addressed prosocial norms.

Opportunities for Prosocial Involvement

Opportunities for prosocial involvement were defined as events or activities in the intervention that encourage youth in prosocial actions. These programs created, or linked children to, opportunities for positive involvement. The positive youth development construct of promoting children's opportunities for prosocial involvement had the second highest representation among all interventions. Twenty-two (88%) of the effective, well-evaluated programs created and used these opportunities for youth to practice and develop

new behaviors and forms of contact with others, including family members, peers, teachers, and other adults.

Among the excluded programs, opportunities for prosocial involvement were less frequently noted, with about half those programs (19, or 49%) receiving that designation.

Recognition for Positive Behavior

This construct was defined as reinforcement or acknowledgement for positive behavior. It tied with opportunities for prosocial involvement as having the second highest representation across programs, with 22 (88%) using some framework for providing acknowledgment, rewards or reinforcement to youth. Most often this recognition was provided in connection with learning a developmentally appropriate skill, task, or challenge, or for supporting appropriate behavioral changes.

Among excluded programs, the recognition construct appeared in fewer than half the programs, at 41% (16).

Bonding

Bonding was defined as a youth's social attachment and commitment to others, including family, peers, school, community, and the culture(s). Bonding had the third highest representation of constructs, present in 19 (76%) programs. A program with a typical bonding component often structured or encouraged direct contact with prosocial adults and peers. Programs also promoted bonding when they sought to strengthen healthy relationships between youth and the people delivering intervention services.

Among excluded programs, bonding was represented in slightly more than half the programs (13, or 55%).

Positive Identity, Self-Determination, Belief in the Future, Resiliency and Spirituality

Five positive youth development constructs were represented in significantly fewer than 50% of programs. In two cases, belief in the future and spirituality, most programs simply did not address these principles. Spirituality and belief in the future were each addressed in only two (8%) programs. Among the other three constructs, resiliency was the most represented, with 12 programs (48%) identified as addressing the construct. In most instances in which the resiliency construct was identified, it was referred to in the text of the evaluation, often in the theory section. It was generally far less clear how the construct was integrated with the rest of the evaluation or program. Both positive identity and self-determination were rarely identified as constructs by program evaluators. However, nine (36%) programs met the criteria for addressing positive identity in some way. Only four (16%) programs met the criteria to define self-determination.

Similar findings occurred for the excluded programs. There were eight (21%) programs that addressed self-determination. However, more of the excluded programs addressed belief in the future (11, or 28%). Ten (25%) programs addressed youth resiliency, and only one of the excluded programs addressed spirituality.

Positive Youth Development Strategies

The original pool of strategies used for the analysis was drawn from a framework developed by Tolan and Guerra (1994). The list was expanded from its original purpose in violence prevention evaluations to encompass techniques or methods linked with forms of positive youth development, health promotion, and competence promotion. This resulted in each intervention being analyzed for 30 possible categories of strategies. These may be generally grouped into two broad categories: skills focus and environmental/organizational change. Overall, specific strategies that corresponded to social skills or cognitive behavioral skills were represented in the greatest proportions in evaluations of effective positive youth development programs. Twenty-four (96%) of all programs incorporated some skills-based strategies. Leading the category of skills-focused strategies were decision-making and self-management skills (each at 73%), followed by coping skills (62%) and refusal-resistance skills (50%).

One of the most commonly documented forms of environmental strategies was the effort to influence teacher practices in the classroom. Another strategy, the influencing of peer norms and perceptions, was not always described in the report, but many programs met the criteria for this, particularly among the multiple-domain programs.

Again a similar profile was found for the excluded programs; about three fourths of these programs used skill based strategies. Except for the excluded programs with strong designs, it was more difficult to determine how many of these used environmental and organizational strategies. The information was not always available for a meaningful analysis.

Measurement of Positive and Problem Behavior Outcomes

The issue of whether a positive youth development intervention measures, as well as addresses, positive-focused outcomes has important implications for the future of the positive youth development field, and is currently the subject of considerable discussion among practitioners, prevention scientists, and the policy community. The minimum requirement for inclusion was that the evaluation measure either reductions in problem behavior, or increases in positive behavior. Measures based on reductions in problem behavior were widely represented in the well-evaluated effective programs, with 24 (96%) interventions using these to assess intervention outcomes. Nineteen programs (76%) used positive outcome measures in addition to measures of problem reduction. This is higher than was expected, and very good news. There is a need for all positive youth development programs to measure both types of outcomes in order to assess fully the effects of these programs on youth. This integrated measurement approach will provide funders of promotion and prevention programs a greater understanding of program effects on all important youth outcomes. Such an integrated approach to measuring youth outcomes has potential for increased funding, and broader applications of positive youth development strategies.

This analysis could not be completed in a meaningful way with the excluded programs. Only a few of the excluded programs met the behavioral outcome criteria, and almost

without exception, these were the earlier iterations of subsequently successful programs that had simply had an inadequate evaluation design or failed to prove effects in the first round. What is possible to say is that of the medium confidence programs ($n=12$), four of eight would have been described as having important youth outcomes (e.g., career maturity, academic performance, positive self-concept, improved family relations), had their evaluation designs been much stronger.

Curriculum

Knowing the extent to which programs relied on a structured curriculum or structured activities is critical for program replication. This analysis identified an overlap between a program's use of a curriculum, and the likelihood it incorporated skills-based strategies, the two concepts being closely linked in practical application. Twenty-four (96%) of the well-evaluated effective programs incorporated a curriculum or program of activities. A program such as Big Brothers/Big Sisters, which did not focus on skill-based strategies to build social competence, did not use a curriculum. Most skills-based programs assume that the outcomes are mediated by the opportunities associated with the direct learning and practice of its strategies. In a program such as Big Brothers/Big Sisters, the opposite is assumed: positive outcomes are mediated by the bonding and other aspects of positive interaction (such as the presumed modeling of effective behavior by the adult) within the mentoring relationship.

Far fewer (20, or 50%, $n=40$) of the excluded programs incorporated a curriculum or structured program of activities into their intervention. Those that did were mainly the programs in which there was some confidence in their evaluation designs ($n=12$), or the five programs with excellent evaluation designs which proved to show no significant behavioral effects.

Program Frequency and Duration

Considerable discussion about adequate "frequency and duration" of an intervention has been generated within the positive youth development field, associated with issues of program length, intensity, periodicity, and "booster" sessions.

The analysis found that twenty (80%) effective, well-evaluated programs were delivered over a period of nine months or more. A number of these, often those operating in a school domain, applied their interventions during the academic year. In the interventions shorter than nine months, programs ranged from 10 to 25 sessions, averaging about 12 sessions per intervention.

By contrast with the well-evaluated programs, fewer than half (17, or 43%, $n=40$) of those in the excluded category lasted nine months or more. Once again, those that did so tended to be either those with a reasonable or strong design that failed to prove effects.

Program Implementation and Assurance of Implementation Quality

Issues of program implementation have recently emerged as some of the most important topics in the positive youth development field. Based on the evidence of many of these

evaluations, attention to implementation quality, management and measurement has steadily increased. Among multi-year, well-funded studies, separate evaluations of implementation, in addition to outcomes evaluations, are becoming more common. The science of studying implementation has taken investigators in many different directions, some evaluations offering supplemental statistical analyses of outcomes based on perceived level of implementation quality (e.g., Gottfredson, et al. 1993; Battistich, 1996). In a major, multi-year evaluation such as Midwestern Prevention Project (Pentz et al., 1990), operational definitions of implementation have been offered, organizing types of implementation by adherence, exposure, reinvention. The term “fidelity” is associated with implementation quality, with evaluators of multi-year evaluations such as Life Skills in 56 New York Public Schools (Botvin et al., 1995; Botvin et al., 1990) reporting outcomes based on analyses of high versus average fidelity of program implementation.

Our analysis showed that the effective positive youth development programs consistently attended to the quality and consistency of program implementation. Twenty-four (96%) evaluations in some way addressed and/or measured how well and how reliably the program implementers delivered the intervention.

Although not as high as the well-evaluated programs, the percentage of programs in the excluded category that addressed or assured implementation quality was fairly high (28, or 70%, n=40).

Ethnographic Data

Roughly three-fourths of the programs each indicated that they had served African-American youth and/or Caucasian youth. Half of the programs reviewed included Hispanic youth and approximately one third of the programs identified Asian youth among their participants. Native-American youth were involved in about 28% of these programs.

Positive youth development programs in the excluded category used youth populations with similar ethnographic profiles as did the well-evaluated ones.

Age

By definition, the analysis focused on youth between the ages of six and twenty, inclusively. Programs which went beyond these boundaries were included if they met the methodology criteria; however, the examination of their results focused on those youth within the designated age range when the data were presented in a manner which permitted this type of analysis. The majority of participants in these evaluations were in grades four through nine, particularly during their initiation into the program.

The age profile of youth in the excluded programs was similar, although there was a noticeable trend for these programs to target slightly older children. The average range for this category of programs was fourth to 12th grade, with a few addressing children as young as first grade but the majority targeting sixth, seventh and eighth grade and beyond.

Methodological Issues

The methodological successes and challenges of positive youth development studies will be discussed and summarized next. In this section we will describe the relative strengths and weaknesses of the methodology used in the evaluations of the 25 programs. As much as possible, we will provide relevant definitions and explanations to frame the importance of each empirical issue in the larger context of evaluation quality and its implications for the positive youth development field.

The major methodological issues associated with the evaluation of positive youth development interventions involve the quality of the program, the quality of the evaluation design, and how well the evaluation report portrays the important aspects of the study. A well done evaluation ideally sets up a reliable framework for testing the impact of the program. If the evaluation report is not comprehensive or leaves out important information, then it is not possible to judge the reliability and validity of the results or the viability of the conclusions. The strongest evaluations used an experimental research design with random assignment or, if this was not viable, a quasi-experimental design with well-matched, well-analyzed comparison groups. Within this framework, it was further necessary that evaluators used an acceptable standard of statistical proof, paid attention to reporting key methodological and analytic details, and described the limitations of their study. In this way, it is possible to gain a clear picture of how evaluators conceptualized and measured the effects of their strategies, and the relative merits of the outcomes.

Overall Quality of Evaluation Research Design

The fundamental question of whether a positive youth development program can reliably demonstrate it had a meaningful effect on the children it targeted is central to issues of evaluation quality. The most reliable design for determining intervention effects is the experimental research design. This method involves randomization of participants to differing conditions or levels of the intervention, thereby allowing the investigator to eliminate systematic differences between the participants in the two conditions. This attempt to control for individual differences among participants significantly increases the likelihood that the intervention groups will contain subjects of the same average ability, which increases the ability to interpret differences between the two conditions as those produced by the intervention, allowing for the highest possible level of confidence in the conclusions. Although the experimental method is not the only method through which reliable differences may be discovered, it is the better choice because, more than any other research design, it removes or minimizes the uncertainty surrounding the conclusions about whether or not a study had effects. The second most reliable method is a rigorous quasi-experimental design that uses a nonrandomly assigned comparison group. The best quasi-experimental designs seek a comparison group whose participants are closely similar to the program group prior to intervention, and explore many possible sources of pre-intervention differences between the two groups in order to rule out these pre-intervention subject differences as sources of post-intervention differences. The more

rigorous this investigation the greater the confidence that post-intervention differences are due to the intervention and not to preexisting subject differences.

Experimental Research Studies of Positive Youth Development Programs

Of the 25 effective programs, 16 (64%) used experimental designs with randomization of subjects to varying levels of the intervention. This speaks to the strengths in the evaluations being conducted by youth development investigators in the last 15 years. It is common in reviews of prevention programs to hear the refrain that the state of evaluation is weak and underdeveloped. In fact, over half of this group chose to employ the rigorous approach of using random assignment.

How effective programs evaluate, anticipate and overcome roadblocks to the use of experimental designs needs to be studied. The 16 studies with strong experimental evaluations clearly were able to overcome the objections and obstacles commonly associated with random assignment. Several more studies, those that eventually reported using quasi-experimental designs, said they had begun the design as an experimental method, only to be “forced” to adapt the design because of issues, generally sociopolitical or environmental, that precluded full randomization. It is true that there are a range of practical and human impediments to using random assignment. These include objections from line staff and parents who feel random assignment excludes some children when they are at equal need, and issues of access to parental consent or permission. Programs such as Life Skills Training nonetheless managed to conduct rigorous evaluations, with long-term follow-up, for extremely large samples of youth populations. Such programs demonstrated that the various objections to using an experimental design on large-scale project (and to long-term follow-up) could be overcome. It is possible to see from the strongest evaluations, however, that clear commitment to the principles of random assignment frequently correlated with that evaluation’s ability to deliver on its application. Programs such as Quantum Opportunities Program remained firm about randomly selecting youth who met program requirements and then recruited them, instead of relying on a sample of self-selected youths. Not only did this provide more rigor, but it also provided investigators some insight into issues around program “take up.” In the Big Brothers/Big Sisters evaluation, evaluators did not want to withhold mentoring opportunities from research subjects. They used an experimental design in which they randomly assigned those who signed up to a mentor or put them on an 18 month wait list, during which time they would collect data from them but not provide a mentor.

Quasi-Experimental Research Studies of Positive Youth Development Programs

When evaluations are unable for various reasons to use the experimental method to contrast two or more intervention conditions, quasi-experimental designs are often used. Quasi-experimental designs also use comparison groups and pre- and post-measurement to look for program effects, but these designs carry a heavier burden of proof because participants are not randomly assigned to program and comparison groups and thus there may be preexisting difference between groups. Nine (36%) evaluations used strong quasi-experimental designs to compensate for either being unable to use random assignment or, as was true for almost half these interventions, for ending up in the compromise position

of “partial” random assignment. These quasi-experimental designs dealt with the absence of random assignment in numerous ways. They began by ensuring the comparability of participants in the program. They used methods such as matching individual factors and exploring subject differences before beginning the intervention. These evaluations analyzed differences noted after the intervention, to rule out sources of erroneously concluding that group differences were produced by the program. They included analysis of dropout between conditions, and exploration of other potential group differences that may have produced the differences observed in outcomes. In addressing the absence of random assignment these studies were persuasive that the participants in both the intervention and comparison conditions were comparable. If, for example, an evaluation indicated that a much higher number of youth in the comparison group dropped out compared with the intervention condition, we required that the evaluation analyze these differences and investigated the effects of differential attrition on their findings. If evaluators investigated these differences and produced evidence that provided confidence in their findings, the study was categorized as a rigorous quasi-experimental design.

Unit of Analysis vs. Unit of Assignment

The issue of whether the unit of assignment is also used as the unit of analysis is an extremely important one. As Biglan and Ary (1985) and Kirby, et al. (1995) have said, when units of assignment and analysis are mixed, school or classroom differences may be confounded with program effects on individuals. However, this issue is not as straightforward in programs that last for multiple years in which participants may change classrooms or schools, communities, or other organizational structures to which they were originally assigned.

Nevertheless, almost half of the effective positive youth development interventions matched unit of analysis and unit of assignment. By far the most common situation involved individual units of assignment and analysis. On the other hand, in very large studies in which classrooms, schools, or even school districts were the unit of assignment, the investigators often chose to use individual subject scores as the unit of analysis. Ideally programs should address the problem by using multi-level analytical techniques such as hierarchical linear modeling.

Statistical Reporting

Claims for the intervention based upon appropriate statistical analysis make it possible to have greater confidence in the conclusions about the intervention. These claims are more strongly supported when they include sufficient detail for the reader to make judgments regarding the significance of the findings. These data would include at a minimum: the type of statistical test used, the test values generated (e.g., T or F values), the degrees of freedom, the sample size, and the p values (level of statistical significance). Ideally, evaluations would also include effect sizes or odds ratios to help the reader evaluate the strength of findings. While many of the programs reviewed did provide most of this information, they rarely included all of it. Typically even in strong evaluation reports, some statistics were not reported. An evaluation might list the numerical values for the several strongest findings, then simply provide narrative statements about the other

results. While there are space limitations in many scientific journals, readers should be given the essential data necessary to determine the significance level, effect size, and power of the analyses presented in order to independently evaluate the importance of the findings to the field.

Attrition Issues

Two issues associated with the attrition level in a study are important for the effective evaluation of positive youth development programs. One is a programmatic challenge for investigators, and the other is an important methodological issue. First, in studying populations that are socioeconomically challenged, certain risk factors have an impact on attrition. Neighborhood risk factors such as community disorganization and mobility, as well as family risk factors of severe stress and poor family management practices, all lead to conditions which increase the likelihood of attrition. This presents a programmatic challenge for investigators who want to retain participants through follow-up. Strategies must be conceived to assure adequate subject retention, and it is important that investigators document those strategies. Assuring higher quality levels of implementation monitoring and management generally contributes to higher levels of subject retention. The majority of effective positive youth development program evaluations did an adequate attrition analysis; however, fewer addressed strategies for effective subject retention.

Second, it is essential to analyze the attrition rates that resulted during the intervention in order to understand whether different intervention group conditions or sub-groups had distinguishing characteristics which affect their presumed equivalence. This is particularly important in the case of strong quasi-experimental research designs, which rely on the ability to demonstrate that their groups were comparable. If an attrition analysis reveals significant, previously undetected differences between members of intervention and comparison groups, these differences need to be controlled for in subsequent analysis, otherwise it seriously impedes the investigators' ability to draw conclusions about the study's effects.

Sufficient Sample Size and Power

It is important that evaluations of positive youth development programs undertake their investigation with sufficient sample size. Sample sizes must be large enough that any programmatic significant impact is also statistically significant. When examining the impact of a program, subsamples must often be analyzed, and the size of each of these subsamples must also be large enough to show statistically significant differences where they exist. This is particularly challenging when investigators wish to assign communities, classrooms, schools or districts to experimental conditions. If they want the unit of assignment to line up with the unit of analysis, they must then contend with the statistical implications of the decision. Such choices almost inevitably produce smaller sample sizes than if they assigned individual participants to conditions. All the effective, well evaluated programs used samples of sufficient size, ranging from at least 100 per experimental and control group to, in a number of the school-based interventions, more than 1000 per condition. Only a few positive youth program evaluations analyzed here

had total samples of fewer than 200 participants, and only one had a total sample of less than 100.

Conclusions

This report addressed three challenges for the field of positive youth development: defining key concepts, documenting evidence of program effectiveness, and better understanding the relationships between predictors of youth behavior and positive youth development outcomes. To address the first challenge, we identified and defined 15 “positive youth development constructs” that appear in the positive youth development literature in studies of child and youth development, psychology, and prevention science. To address the second, 25 programs were identified from 77 reviewed programs that demonstrated important youth outcomes at some point after the program was delivered. To address the third challenge, better understanding the relationships between predictors of youth behavior and positive youth development outcomes, we examined the social domains in which the programs conducted their strategies.

The study concluded that a wide range of positive youth development approaches can result in positive youth behavior outcomes and the prevention of youth problem behaviors. Nineteen effective programs showed positive changes in youth behavior, including significant improvements in interpersonal skills, quality of peer and adult relationships, self-control, problem solving, cognitive competencies, self-efficacy, commitment to schooling, and academic achievement. Twenty-four effective programs showed significant improvements in problem behaviors, including drug and alcohol use, school misbehavior, aggressive behavior, violence, truancy, high risk sexual behavior, and smoking. This is good news indeed. Promotion and prevention programs that address positive youth development constructs are definitely making a difference in well-evaluated studies.

Although a broad range of strategies produced these results, the themes common to success involved methods to: strengthen social, emotional, behavioral, cognitive, and moral competencies; build self-efficacy; shape messages from family and community about clear standards for youth behavior; increase healthy bonding with adults, peers and younger children; expand opportunities and recognition for youth; provide structure and consistency in program delivery; and intervene with youth for at least nine months or more. Although one third of the effective programs operated in only a single setting, it is important to note that for the other two thirds, combining the resources of the family, the community, and the community’s schools were the other ingredients of success.

Future Directions

In addition to the good news about positive youth development programs, we present some concerns related to specific findings, and considerations for the future.

A little more than half of the well-evaluated programs measured outcomes only at the end of the program; in other words, no further follow-up was done or was available at the

time of this review. Whether those programs will continue to show positive results is a question that remains unanswered. This is of particular concern since in two instances, programs that reported long-term results were unable to sustain their initial positive findings. It is clearly most desirable – and presents the most compelling evidence – when programs can demonstrate positive long-term outcomes. In the case of the two studies unable to demonstrate long-term results after initial positive effects, the reasons for these findings needs additional study, and should be shared with the positive youth development community.

Evaluators of positive youth development programs are encouraged to take action to expand the knowledge gained from evaluations. Consensus on the use of standardized youth outcome measures needs to be reached. Studies should measure changes of both positive and problem behaviors because to do so is truly representative of the “whole child.” Although such positive outcomes as academic achievement, engagement in the workforce, and income are widely accepted positive outcome measures, there is little consensus on what constitutes a complete set of positive youth development outcomes.

Standardized measures of positive youth development constructs need to be developed and used. While the positive youth development constructs are typically seen as important mediating variables, the field is just beginning to grapple with defining outcomes of positive developmental experiences. Further, measurement of a comprehensive set of predictors of positive and problem outcomes will allow for a better understanding of the processes through which the intervention has an impact on youth outcomes. A complete measurement package (positive and problem behaviors, appropriate and relevant positive youth development constructs, and risk and protective factors) common across promotion and prevention studies would increase our understanding of the processes leading to positive youth development. This will help to establish a shared language and framework.

We call for consensus on the use of structured comparisons in evaluation designs. While it is true that there are many innovative ways to evaluate programs, so far nothing has come close to substituting for the credibility of a strong structured comparison. Admittedly the rigors of experimental designs with the complexities of random assignment are beyond the reach of many programs, but evaluations can be only as credible as the framework they use. A good quasi-experimental design with well-balanced comparison groups can provide acceptable proof of effectiveness.

Finally, we call on all investigators who submit articles to peer reviewed journals to move toward consensus on which information they will report, particularly the quantitative data, and in what forms they will report it. In program reports, particularly in peer reviewed journals but also in unpublished evaluation studies, there must be both sufficient narrative description, and quantitative and statistical detail, to enable an independent assessment of what the program accomplished. Program descriptions should specify which youth constructs they address, and they should specify the relationship between these constructs and the outcomes that the evaluation measures. As a field of youth development specialists, we show surprisingly little agreement on the issue of a common statistical metric in published reports. As long as some studies report such key information as group means and standard deviations, and others do not, we will not give

each other the tools to create a viable basis for comparison between studies. Consistency in the presentation of the evidence will truly advance our understanding of program effectiveness.

APPENDICES

Decision Rules

These are the concrete rules we used to determine whether a program developed a particular youth development construct or employed a particular intervention strategy in a particular social domain (thus meeting the operational definition for that construct or strategy). We also sought to define rules which would specify relationships between multiple constructs, strategies, and combinations of the two. Note that decisions were not limited to what we have defined below. For example, a program could offer components which we have not identified in the decision rules for a particular youth development construct yet still be classified as promoting that construct.

Definitional rules for youth development constructs

- ♦ If program seeks to improve academic performance, THEN Cognitive Competence is a PYD construct for that program.
- ♦ If program seeks to strengthen thinking and decision making capabilities, THEN Cognitive Competence is a PYD construct for that program.
- ♦ If program seeks to strengthen relational skills required for interpersonal coping and communication, THEN Social Competence is a PYD construct for that program.
- ♦ If program seeks to foster self-awareness AND/OR impulse control AND/OR persistence AND/OR motivation AND/OR empathy, THEN Emotional Competence is a PYD construct for that program.
- ♦ If a program seeks to strengthen youth skills, THEN Behavioral Competence and Self-Efficacy are PYD constructs for that program.
- ♦ If program seeks to promote empathy OR respect for rules and standards OR a sense of moral justice, THEN Moral Competence is a PYD construct for that program.
- ♦ If a program seeks to increase empowerment OR autonomy, THEN Self-Determination is a PYD construct for that program.
- ♦ If a program offers long-term incentives such as tuition assistance or a guaranteed job, THEN Belief in the Future is a PYD construct for that program.
- ♦ If a program includes cultural competence AND/OR is based upon a theory of human identity development THEN Positive Identity is a PYD construct for that program.
- ♦ If a program seeks to build protective factors into a vulnerable youth's environment, OR seeks to change the proportion of risk to protective factors in that environment, THEN Resiliency is a PYD construct for that program.

- ♦ If a program seeks to promote interpersonal relationships for youth, THEN Bonding is a PYD construct for that program.
- ♦ If a program seeks to strengthen the bond to the conventional social order in school, community, or other group-based social domains, THEN Bonding is a PYD construct for that program.
- ♦ If a program seeks to foster affiliation with cultural norms for spirituality, OR fosters internal reflection, meditation, OR the development of a sense of spiritual meaning or practice, THEN Spirituality is a PYD construct for that program.
- ♦ If a program seeks to offer reinforcement for positive behavior or positive behavior change, THEN Provides Recognition for Positive Behavior is a PYD construct for that program.
- ♦ If a program seeks to offer activities that create a range of opportunities for prosocial involvement, THEN Provides Positive Opportunity Structures in the Environment is a PYD construct for that program.

Definitional rules for intervention strategies

- ♦ IF a program offers skills training promoting positive behavioral AND/OR cognitive changes, THEN Cognitive-Behavioral is an intervention strategy for that program.
- ♦ IF a program uses strategies that target antisocial norms and seeks to replace these with prosocial norms, THEN Shifting Peer Group Norms is an intervention strategy for that program.
- ♦ IF a program uses strategies that seek to influence perceptions in a prosocial direction, THEN Shifting Peer Group Perceptions is an intervention strategy for that program.
- ♦ IF a program uses training or implementation strategies that seek to influence teacher behavior in a new direction, THEN Changing Teacher Practices is an intervention strategy for that program.
- ♦ IF a program uses implementation strategies that seek to influence norms, attitudes or general social environment in a school, THEN Changing School Climate is an intervention strategy for that program.
- ♦ IF a program uses strategies that seek to improve internal commitment to the school environment, promote bonding to school, or improve school performance, THEN Influencing Student Motivation is an intervention strategy for that program.
- ♦ IF a program uses implementation strategies that seek to influence organizational behavior, attitude, or practices in a new direction, THEN Changing Institutional Practices is an intervention strategy for that program.

- ♦ IF a program uses strategies that seek to influence community perceptions of youth and/or the role of youth in the community, THEN Increasing Community Awareness is an intervention strategy for that program.
- ♦ IF a program offers skills training in methods to manage one's stress, impulses, or frustration, THEN Coping Strategies and Self-Management are intervention strategies for that program.
- ♦ IF a program offers skills training in methods to manage one's goals and priorities, THEN Coping Strategies and Self-Management are intervention strategies for that program.
- ♦ IF a program offers skills training in methods to manage one's interpersonal relationships or build social competence, THEN Social Skills is intervention strategy for that program.
- ♦ IF a program offers training of peers who then facilitate conflict resolution among peers involved in disputes, THEN Conflict Resolution is an intervention strategy for that program.
- ♦ IF a program offers training in coping with peer pressure around drug use or other antisocial behavior, while maintaining the peer relationship, THEN Refusal/Resistance is an intervention strategy for that program.
- ♦ IF a program offers cognitive skills training in making choices, problem solving, or coping with goals and priorities, THEN Decision Making is an intervention strategy for that program.
- ♦ IF a program offers a packaged intervention called "Life Skills Training," particularly if it is based upon the work of Botvin, THEN Life Skills is an intervention strategy for that program. (The actual package name should be identified in the components section of the abstract.)

Definitional rules between domains

- ♦ IF a program targets the parent-child unit outside the physical setting of the home, THEN Family Setting Unit is the appropriate domain.
- ♦ IF an intervention component actively targets an activity or parent-child relationship in the physical setting of the home, THEN Family Home Unit is the appropriate domain (and "fam.set.unit" is assumed).

Relationship rules between intervention strategies and youth development constructs

- ♦ IF Refusal/Resistance Skills training is identified as a strategy, THEN Self-efficacy will be one of the PYD constructs.

- ♦ IF a program offers Refusal and Resistance training, THEN Social Competence is a PYD construct for that program.
- ♦ IF a program offers Refusal and Resistance training, THEN Cognitive Competence is a PYD construct for that program.
- ♦ IF Refusal and Resistance Skills training is identified as a strategy, AND the children being served are exposed to multiple risk factors, THEN Resiliency will be one of the PYD constructs.
- ♦ IF Reinforcement (for positive behavior) is identified as a strategy, THEN Recognition (for positive involvement) will be one of the PYD constructs.
- ♦ IF Self-Management is identified as a strategy, THEN Self-Efficacy will be one of the PYD constructs.
- ♦ IF a program seeks to improve Self-Management (skills), THEN Self-Efficacy is a PYD construct for that program.
- ♦ IF a program seeks to improve Self-Management (skills), THEN Cognitive Competence is a PYD construct for that program.
- ♦ IF a program seeks to improve Coping Strategies, THEN Self-Efficacy is a PYD construct for that program.
- ♦ IF a program targets Prevention of Association with Antisocial Peers, THEN Prosocial Norms is a PYD construct for that program.
- ♦ IF a program provides skill development in Conflict Resolution, THEN Prosocial Norms is a PYD construct for that program.
- ♦ IF a program seeks to Shift Peer Group Perceptions, THEN Prosocial Norms is a PYD construct for that program.
- ♦ IF a program promotes Mentoring, THEN Prosocial Norms is a PYD construct for that program.
- ♦ IF a program provides skill development in Conflict Resolution, THEN Emotional Competence is a PYD construct for that program.
- ♦ IF a program promotes a Mentoring component in its intervention, THEN Bonding is a PYD construct for that program.
- ♦ IF a program seeks to improve youth Decision Making and Problem Solving, THEN (1) Cognitive and (2) Behavioral Competence, and (3) Self efficacy are PYD constructs for that program.

- ♦ IF a program fosters Prosocial Norms, THEN (1) Shifting Peer Group Norms and (2) Shifting Peer Group Perceptions are intervention strategies.
- ♦ IF a program Shifts Peer Group Perceptions, THEN (1) Cognitive Competence will be one of the PYD constructs.
- ♦ IF a program seeks to improve Coping Strategies, THEN (1) Cognitive Competence will be one of the PYD constructs.
- ♦ IF a program seeks to improve Social Skills, THEN Social Competence will be one of the PYD constructs.
- ♦ IF a program seeks to promote Conflict Resolution Skills, THEN Social Competence will be one of the PYD constructs.
- ♦ IF a program seeks to promote Refusal/Resistance Skills, THEN Social Competence will be one of the PYD constructs.
- ♦ IF a program seeks to promote Cooperative Learning Skills, THEN Social Competence will be one of the PYD constructs.
- ♦ IF a program seeks to improve Social Skills, THEN Behavioral Competence will be one of the PYD constructs.
- ♦ IF a program uses Cognitive-Behavioral Strategies, THEN Behavioral Competence will be one of the PYD constructs.
- ♦ IF a program seeks to promote Peer Mediation Skills, THEN Behavioral Competence will be one of the PYD constructs.
- ♦ IF a program seeks to promote Conflict Resolution Skills, THEN Behavioral Competence will be one of the PYD constructs.

Relationship rules between constructs

- ♦ IF Social Competence is identified as a PYD construct for a program, THEN Behavioral Competence will also be a PYD construct for that same program.
- ♦ IF Self-Efficacy is identified as a PYD construct for a program, THEN Cognitive Competence and Behavioral Competence will also be PYD constructs for that same program.
- ♦ IF Bonding is identified as a PYD construct for a program, THEN Emotional Competence will also be a PYD construct for that same program.
- ♦ IF Resiliency is identified as a PYD construct for a program, THEN Self-Efficacy will also be a PYD construct for that same program.

- ♦ If a program simultaneously promotes Positive Opportunities, Interpersonal Skills and Recognition for Positive Involvement for youth (i.e., SDM Model), THEN Bonding is a PYD construct for that program.

Relationship rules between intervention strategies

- ♦ IF Mentoring is identified as an intervention strategy, THEN Preventing Associations with Antisocial Peers will also be an intervention strategy for that same program.
- ♦ IF Decision Making is identified as an intervention strategy, THEN Self-Management will also be an intervention strategy for that same program.
- ♦ IF a program offers training on Peer Mediation, THEN Conflict Resolution is an intervention strategy for that program.
- ♦ IF a program offers Refusal/Resistance training, THEN Social Skills is an intervention strategy for that program.

Effective Programs in One Social Domain

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1988 Schinke, Botvin, Trimble, Orlandi, Gilchrist & Locklear Bicultural Competence Skills	Western Washington State n = 137 (individual)	11-12 years NatAm=100%	Exposure: 10 sessions Content: Skills training to promote competence and positive identity based on bicultural fluency	Experimental	Social, emotional, cognitive, behavioral and moral competencies, positive identity, bonding, self-efficacy, recognition for positive behavior, opportunities for prosocial involvement, prosocial norms	Community	<i>Increases(posttests & 6-month follow-up)</i> in self-control, assertiveness, healthy coping, substance abuse knowledge <i>Decreases(posttests & 6-month follow-up)</i> in alcohol, tobacco and other drug (ATOD) use
1995 Tierney, Grossman & Resch Big Brothers/Big Sisters	Phoenix, Wichita, Minneapolis, Rochester, Columbus, Philadelphia, Houston and San Antonio n = 959 (individual)	10-14 years 60% = combined total AfrAm & Hisp 40% = unspec	Exposure: 9-12 hours per month for 11 months Content: Activities with mentor	Experimental	Promotion of social, emotional, cognitive and behavioral competencies, positive identity, bonding, resiliency, self-efficacy, and prosocial norms	Community	<i>Increases</i> in ability to complete school work, parental trust, cognitive competence, peer support, social acceptance <i>Decreases</i> in drug use, hitting, skipping class or day of school, lying to parents
1989 Walter, Vaughan & Wynder Know Your Body	New York, NY n = 593 (individual) n=15 (schools)	4 th -9 th grade Cauc=79.3% AfrAm=13.8% Hisp=2.2% Asian=4.7%	Exposure: 2 hours/wk for 6 years Content: Health promotion	Experimental	Social, emotional, cognitive and behavioral competencies, self-efficacy, recognition for positive behavior, positive identity, and prosocial norms	School	<i>Increase</i> in healthy dietary patterns <i>Decrease</i> in smoking initiation

Effective Programs in One Social Domain (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1985 Connell & Turner 1985 Connell, Turner & Mason 1992 Smith, Redican & Olson Growing Healthy (a/k/a School Health Curriculum Project)	20 states: 1 mid-Eastern urban district; 1 mid-Southern suburban district; 2 Western rural districts n = 1397 (individual)	4-7th grade M=50.3% F=49.7% Cauc=57% AfrAm=40% Hisp=1.5% Unspec=1.5%	Exposure: 43-56 lessons over 1 or 2 years (depending on experimental condition) Content: Health competence promotion	Quasi-experimental	Social, emotional, cognitive, and behavioral competencies, self-efficacy, opportunities for prosocial involvement, recognition for positive behavior, positive identify, and prosocial norms	School	<i>Increases</i> in positive knowledge and attitudes toward health, development and personal responsibility <i>Decreases</i> in smoking and intention to smoke
1985 Pedro-Carroll & Cowen Children of Divorce Intervention Program	Rochester, NY 4 suburban schools n = 75(individual)	3-6th grade M=42 F=33 Cauc=100%	Exposure: 10 sessions Content: Health and social competence promotion	Experimental	Social, emotional, cognitive, and behavioral competencies, bonding, self-efficacy, resilience, prosocial norms, opportunities for prosocial involvement, and recognition for positive behavior	School	<i>Increases</i> in social competence, frustration tolerance, assertiveness, problem-solving <i>Decreases</i> in learning problems, anxiety, negative classroom adjustment

Effective Programs in One Social Domain (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1990 Botvin, Baker, Dusenbury, Tortu & Botvin 1995 Botvin, Baker, Dusenbury, Botvin & Diaz Life Skills Training (LST) (in 56 New York State Public Schools)	New York State Posttests n=4466 (full sample) n=3684 (high fidelity sample) Long-term follow-up n=3597 (full sample) n=2652 (high fidelity sample)	7 th - 9 th grade Cauc=91% Unspec=9%	Exposure: 15 sessions, 2 per week (Y1); 10 booster sessions (Y2); 5 booster sessions (Y3) Content: Competence promotion & resistance training	Experimental	Social, emotional, cognitive, & behavioral competencies, bonding, & prosocial norms	School	<u>Posttests</u> <i>Increases</i> in interpersonal skills, knowledge of smoking & substance abuse consequences <i>Decreases</i> in cigarette & marijuana smoking, alcohol intoxication, in expectations concerning adult smoking norms & norms for adult & peer marijuana use <u>Long-Term</u> (Outcomes are for whole sample and intervention sub-groups) <i>Decreases</i> in monthly & weekly cigarette smoking, heavy cigarette smoking, problem drinking, polydrug use (alcohol, cigarettes, marijuana) <u>High Fidelity Sample</u> <i>Decreases</i> in monthly, weekly & heavy cigarette smoking; weekly & heavy problem drinking; alcohol intoxication, monthly & weekly marijuana, combinations of polydrug variables.

Effective Programs in One Social Domain (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1996 Greenberg 1997 Greenberg & Kusche Providing Alternative Thinking Strategies (PATHS) Curriculum	Seattle, WA n=286 (individual)	6-11 years 1st-3rd grade Cauc=165 AfrAm=91 As=11 Fil=7 NatAm=7 Hisp=1 Unk=4	Exposure 20-30 minutes 3 times per week over the school year Content: Competence promotion in self-control, self-management & problem solving strategies	Experimental	Social, emotional, cognitive, behavioral and moral competencies, self-efficacy, bonding, resiliency, and recognition for positive behavior	School	<u>Posttests</u> <i>Increases</i> in social, cognitive & emotional competence, self-efficacy, problem-solving <i>Decreases</i> in aggressiveness, passivity & conduct problems <u>Long-term</u> <i>Increases</i> in emotional understanding, interpersonal problem-solving skills, self-control, prosocial solutions, improvement in quality of social planning, concentration & focus, social/school functioning <i>Decreases</i> in externalizing behaviors, aggressiveness, passivity, conduct problems <u>Improvements for special needs group</u> <i>Increases</i> in social planning, focus & concentration, self-control <i>Decreases</i> in aggression, passivity, conduct problems, somatic complaints, depressive symptoms

Effective Programs in One Social Domain (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1993 Ellickson, Bell & Harrison 1993 Ellickson, Bell & McGuigan 1990 Ellickson & Bell Project ALERT	California & Oregon n=3852 (individual)	7th-8th grade M=49% F=51% Cauc=71% Hisp=9% AfrAm=8% As=10% NatAm/and Other=3%	Exposure 10 sessions in 7 th grade; 3 booster sessions in 8 th grade Content: Competence promotion & refusal/resistance training	Experimental	Social, cognitive & behavioral competencies, self-efficacy, & prosocial norms	School	<u>Posttests (15 months after baseline)</u> <i>Increases</i> in self-efficacy, pos. changes in cigarette & marijuana knowledge and attitudes <i>Decreases</i> (sub-groups by risk level) in smoking cigarettes & marijuana, expectations of using <u>Follow-Up (grades 10 & 12)</u> <i>Increases</i> in beliefs about immediate and negative social consequences of drugs (10 th grade only) <i>Decreases</i> for all behavioral findings disappeared by 12 th grade

Effective Programs in Two Social Domains

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1996 Battistich, Schaps, Watson & Solomon The Child Development Project	24 elementary schools from 6 school districts (12 on West Coast, 4 in the South, 4 in the Southeast, 4 in Northeast) n = 1645 (individual)	11-12 years 3-6th grades M=48% F=52% Varying ethnicity over 3 year period: Cauc=39-54% AfrAm=17-23% Hisp=21-27% As=5-10% Other=2-3%	Exposure: Integrated curriculum over school year Content: Cooperative learning, reading and language arts, developmental discipline, school community building, homeside activities	Quasi-experimental	Social, emotional, cognitive, behavioral and moral competencies, bonding, resiliency, self-efficacy, recognition for positive behavior, positive identity, opportunities for prosocial involvement, prosocial norms, and self-determination	Family and School	<i>Increases</i> in peer social acceptance <i>Decreases</i> in alcohol & tobacco use, loneliness & social anxiety High implementation sub-group: <i>Decreases</i> in marijuana use, carrying weapons, vehicle theft
1998 Greenberg 1997 CPPRG Fast Track	Durham, NC Nashville, TN Seattle, WA Rural PA n = 898 (individual, high risk sample) n = 385 (classrooms, full study)	1-3 rd grade M=66% F= 34% Ethnicity AfrAm=50% Others = 50%	Exposure: 57, tri-weekly PATHS lessons plus parent-child training over 3 years Content: PATHS curriculum plus 6 individualized components for high-risk sample	Experimental	Social, emotional, cognitive, behavioral competencies, resiliency, bonding, recognition for positive behavior, opportunities for prosocial involvement, prosocial norms	Family and school	<i>Increases</i> in accepting authority, liking, positive classroom atmosphere, appropriate expression of feelings, staying on task <i>Decreases</i> in aggression, hyperactivity (full study); disruptive behavior at school, conduct problems at home (high-risk sample)
1997 Eron, Guerra, Henry, Huesmann, Tolan & Van Acker Metropolitan Area Child Study	Chicago and Aurora, Illinois n = 3599 (individual)	2-6th grades AfrAm=40% Hisp=40% Cauc=20%	Exposure: 40 one-hour sessions over 2 years Content: Social-cognitive curriculum, behavior management, family cohesiveness	Experimental	Social, emotional, cognitive, behavioral and moral competencies, bonding, resiliency, self-efficacy, opportunities for prosocial involvement, and prosocial norms	Family and School	<i>Increase</i> in prosocial behavior (sub-group) <i>Decrease</i> in aggressive behavior (sub-group) Results in wrong direction for one sub-group (sub-groups are by aggression level co-variate)

Effective Programs in Two Social Domains (Continued)

Program Description	Sample Description		Study				
	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1991 Kirby, Barth, Leland & Fetro Reducing the Risk	13 urban and rural schools in California n = 1033 (individual)	10th grade M=47% F=53% Cauc=62% Lat=20% As=9% NatAm=2% AfrAm=2% Unspec=5%	Exposure: 15 class periods plus unspecified parent-child periods Content: cognitive-behavioral, teacher & peer role modeling, parent involvement	Quasi-experimental	Social, emotional, cognitive and behavioral competencies, self-efficacy, opportunities for prosocial involvement, prosocial norms, and self-determination	Family and School	<u>Posttests</u> <i>Increases</i> in knowledge and communication with parents about contraception and abstinence, changes in normative beliefs <u>Follow-Up</u> <i>Decreases</i> in rates of initiation of intercourse, in unprotected intercourse
1998-under review Hawkins, Catalano, Kosterman, Abbott & Hill The Seattle Social Development Project	18 Seattle elementary schools n = 643 (individual)	1-5th grades M=47-53% F=53-47% Cauc=42-46% AfrAm=21-30% As=18-24% NatAm=3-7% Other=1-5%	Exposure: 7 sessions in 1-2nd grade, 4 sess. in 2-3rd grades, 5 sess. in 5-6th grades, 4 sess. in 6th grade Content: Training for teachers and parents, social competence promotion for children	Quasi-experimental	Social, emotional, cognitive and behavioral competencies, bonding, opportunities for prosocial involvement, recognition for positive behavior, and prosocial norms	Family and School	<u>Follow-Up</u> (6 years from posttests) <i>Increases</i> in attachment/bonding to school, achievement <i>Decreases</i> in school misbehavior, rate of violent acts, alcohol use in past year, sexual intercourse, multiple sex partners

Effective Programs in Two Social Domains (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1998 Weissberg & Caplan The Social Competence Promotion Program for Young Adolescents	4 urban multi-ethnic middle schools in New Haven, CT n = 421 (individual)	5-8th grade M=210 F=211 Cauc=178 AfrAm=167 Hisp=72 Other=4	Exposure: 16 45-minute sessions over 12 weeks; teacher and aide training, consultation and coaching Content: Social competence promotion, family involvement	Quasi-experimental	Social, emotional, cognitive and behavioral competencies, bonding, prosocial norms, self efficacy, recognition for positive behavior, and resilience	Family and School	<i>Increases</i> in peer involvement, social acceptance, problem-solving, use of conflict resolution strategies, positive solutions <i>Decreases</i> in aggressive and passive solutions
1996 Slavin, Madden, Dolan & Wasik Success for All	23 elementary schools in various states, with 55 each, experimental and control cohorts (each cohort = 50-150 students) n = 110 (cohorts)	K-5th grade AfrAm = Majority (% not specified)	Exposure: Daily immersion in SFA reading curricula, 20-minute tutoring sessions, daily 90-minute enhanced (Aregrouping@) reading periods, assessments every 8 wks, family involvement Content: Cognitive competence, reading achievement, tutoring, parenting skills	Quasi-experimental	Social, cognitive and behavioral competencies, bonding, opportunities for positive involvement, and recognition for positive behavior change	Family and School	<i>Increases</i> in reading competence <i>Decreases</i> in students being retained a grade

Effective Programs in Two Social Domains (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1996 Allan, Philliber, Herrling & Kuperminc T n Outreach	25 schools nationwide n = 695 (individual)	10 th grade M=14/17% F=86/83% Cauc=17/20% AfrAm=68/66% His=13/10% Other=2/3%	Exposure: 45 hrs of volunteer service annually, weekly classroom discussions and activities throughout the school year Content: Community-based volunteer activities, skills training, tutoring	Experimental	Social, emotional, cognitive, behavioral and moral competencies, bonding, self-efficacy, opportunities for prosocial involvement, prosocial norms, positive identity, belief in future, and self-determination	School and Community	<i>Decreases</i> in school failure, school suspension, and teen pregnancy

Effective Programs in Three Social Domains

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1996 LoSciuto, Rajala, Townsend & Taylor Across Ages	2 public middle schools in Philadelphia, PA n = 562 (individual)	6th grade M=47% F=53% AfrAm=52.2% As=9.1% Lat=9% Cauc=15.8%	Exposure: 2 hrs per wk (mentoring), 1 hr every 2 wks (community service), 26 1-hour sessions (social problem solving) over one school year Content: Intergenerational mentoring, community service activities, parent involvement	Experimental	Social, emotional, cognitive and behavioral competencies, bonding, resiliency, self-efficacy, recognition for positive behavior, positive identity, opportunities for prosocial involvement, and prosocial norms	Family, School and Community	<i>Increases</i> in positive attitudes and/or knowledge of school, the future, older people and community service <i>Decrease</i> in days absent from school
1995 Andrews, Soberman & Dishion Adolescent Transitions	Oregon n = 143 (families) n = 158 (youth)	10-14 yrs 6-8th grade M=83 F=75 Cauc=95% unspec=5%	Exposure: 12 sessions over 18 hrs Content: Youth and parent skills training for self and family management	Experimental	Social, cognitive, and behavioral competencies, bonding, self-efficacy, recognition for positive behaviors, opportunities for prosocial involvement, and prosocial norms	Family, School and Community	<i>Increase</i> in social learning (youth) <i>Decreases</i> in negative engagement with family, conflict, negative family events, youth aggression

Effective Programs in Three Social Domains (Continued)

Program Description	Sample Description		Study				
	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1989 Pentz, Dwyer et al. 1994 Pentz, Dwyer, Johnson, Flay, Hansen, MacKinnon, Chow, Rohrbach & Montgomery Midwestern Prevention Project-Project STAR-Kansas (MPP)	Public middle/junior high schools in Kansas City, MO n = 4153 (individual-avg per year)	6-7th grade Cau=76.6% AfrAm=19.2% M=50.7% F=60.9%	Exposure: 10-session school program; 10 hours of homework activities with parents; community organizing; mass media coverage Content: Parent and youth education and skills training, community organization	Quasi-experimental (partial randomized control trial)	Social, emotional, and behavioral competencies, self-efficacy, recognition for positive behaviors, bonding, and prosocial norms	Family, School and Community	<u>Through 3-year follow-up:</u> <i>Decreases</i> in the monthly, weekly and heavy use of cigarettes, marijuana and alcohol <u>Through 5-year follow-up:</u> Lower levels of monthly drug use, weekly cigarette smoking
1996 Perry, Williams, Veblen-Mortenson, Toomey, Komro, Anstine, McGovern, Finnegan, Forster, Wagenaar & Wolfson Project Northland	20 schools in northeastern Minnesota n = 1901 (individual)	6-8th grade Cau=94% NatAm=4.5%	Exposure: Weekly activities and/or training over 3 years Content: Youth skills and parent competence training, community organization	Experimental	Social, emotional, cognitive and behavioral competencies, bonding, self-efficacy, opportunities for prosocial involvement, and prosocial norms	Family, School and Community	<i>Increases</i> in parent-youth communication, knowledge & attitudes for resisting peer influence, self-efficacy <i>Decreases</i> in alcohol use, cigarettes and marijuana for subgroups by previous risk level; in alcohol for full sample

Effective Programs in Three Social Domains (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1998, 1997 Farrell & Meyer Richmond Youth Against Violence Project / Responding in Peaceful and Positive Ways	3 urban middle schools in Richmond, VA n = 579 (1998 evaluation) n = 452 (1997 evaluation) (individual)	6th grade AfrAm=96% unspec=4%	Exposure: 25 sessions over the school year Content: Violence prevention and health promotion curriculum, parent training	Experimental	Social, emotional, cognitive, behavioral and moral competencies, bonding, prosocial norms, self-efficacy, opportunities for prosocial involvement, and recognition for positive behavior	Family, School and Community	<u>Posttests:</u> <i>Increases</i> in RIPP knowledge, use of school mediation program <i>Decreases</i> in fighting, carrying weapons, rates of in-school suspensions <u>Six-month follow-up:</u> Significant changes in knowledge, violent behavior, suppression of anger, frequency of hitting a teacher, school suspensions; (for boys) impulse control, drug use, skipping school; (for girls) problem solving
1992 Cardenas, Montecel, Supik & Harris Valued Youth Partnership	San Antonio, TX n = 194 (individual)	12 yrs Hisp=61/69% Cauc=2/0% unspec=37/37%	Exposure: 30 sessions over school year, 4 hrs per week of tutoring Content: Peer tutoring, stipends, leadership training, parent & business community involvement	Quasi-experimental	Social, emotional, cognitive and behavioral competencies, bonding, recognition for positive behavior, positive identity, opportunities for prosocial involvement, and prosocial norms	Family, School and Community	<i>Increases</i> in reading grades, positive self-concept, positive attitudes toward school <i>Decrease</i> in school drop-out rates

Effective Programs in Three Social Domains (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1997 LoSciuto, Freeman, Altman & Lanphear Woodrock	Philadelphia, PA n = 367 (individual)	6-14 yrs M=53.1% F=46.9% Lat=44.4% Cauc=19.9% AfrAm=11.4% As=11.2% Other=9.3% NatAm=1.9%	Exposure: Weekly classes (skills for human relations), daily mentoring, weekly participation in activities, regular but unspec. amount of home visits and contacts Content: Social competence promotion, life skills, human relations classes, peer mentoring, extracurricular activities, parent training and involvement	Experimental	Social, emotional, cognitive, and behavioral competencies, bonding, resilience, self-efficacy, recognition for positive behaviors, prosocial norms, positive identity, and opportunities for prosocial involvement	Family, School and Community	<i>Increases</i> in positive race relations <i>Decreases</i> in drug use for past year (younger sub- group) & past month (older & younger sub- groups) Outcomes in wrong direction for one sub- group (older), on attitudes toward drug use

Effective Programs in Three Social Domains (Continued)

Program Description		Sample Description		Study			
Publication Date / Author(s) / Program	Location / Size	Age / Grade / Gender / Ethnicity	Program Description	Design	PYD Constructs	Domain(s)	Outcomes
1996 Johnson, Strader, Berbaum, Bryant, Bucholtz, Collins & Noe Creating Lasting Connections	5 church communities in Louisville, KY n = 217 (individual)	12-14 years Cauc=77% AfrAm=23%	Exposure: 6 two-1/2 hour sessions totaling 15 hours (youth); 22 sessions totaling 55 hours (parents); 7 2-1/2 hour sessions totaling 18 hours (volunteer service providers); follow-up consultation and support for 1 year Content: Community, parent and child strategies to promote communication and self-management skills	Experimental	Social, emotional, cognitive, behavioral, and moral competencies, bonding, resiliency, self-efficacy, spirituality, recognition for positive behavior, positive identity, opportunities for prosocial involvement, and self-determination	Family, Church and Community	<i>Increases</i> in youth use of community services, related action tendencies, perceived helpfulness <i>Interaction Effects:</i> Onset of substance abuse delayed as parents changed their substance use beliefs and knowledge
1994 Hahn, Leavitt & Aaron Quantum Opportunities Program	Philadelphia, PA n = 170 (individual)	9-12th M=48% F=52% AfrAm=75% Cauc=14% Hisp=7% As=1% Other=2%	Exposure: 1300 hours over 4 year program period Content: Education activities, peer tutoring, community service activities, mentoring, life and family skills	Experimental	Social, emotional, behavioral and cognitive competencies, bonding, resiliency, self-efficacy, recognition for positive behaviors, positive identity, opportunities for prosocial involvement, prosocial norms, self-determination, and belief in the future	School, Community and Work	<i>Increases</i> in high school graduation rates, in college or post-secondary school attendance, honors and awards

Characteristics of Positive Youth Development Programs

Summary of the Analysis

Program Characteristic	Included (n = 25)	Excluded (Range of n = 39-40)
<u>Domains</u>		
School domain component	88% (22)	80% (32, n = 40)
Family domain component	60% (15)	20% (8, n = 40)
Community domain component	48% (12)	50% (20, n = 40)
Single domain	32% (8)	53% (21, n = 40)
Two domains	32% (8)	25% (10, n = 40)
Three domains	36% (9)	15% (6, n = 40)
Four domains	-0-	8% (3, n = 40)
Total multi-domain	68% (17)	40% (16, n = 40)
<u>PYD Constructs Featured</u>		
Competence	100% (25)	100% (39, n = 39)
Prosocial norms	100% (25)	77% (30, n = 39)
Self-efficacy	100% (25)	87% (34, n = 39)
Opportunities for prosocial involvement	88% (22)	49% (19, n = 39)
Recognition for positive behavior	88% (22)	41% (16, n = 39)
Bonding	76% (19)	55% (13, n = 39)
<u>Other Characteristics</u>		
Assured implementation quality	100% (25)	70% (28, n = 40)
Employed structured curriculum or program activities	96% (24)	50% (20, n = 40)
Lasted at least nine months	80% (20)	43% (17, n = 40)
Increased positive behaviors	76% (19)	N/A
Reduced problem behaviors	96% (24)	N/A

- The reason that excluded programs vary between 39-40 is because information was missing from evaluations which precluded full analysis on a particular program dimension.

Basis of Program/Evaluation Exclusion
from Category of Effective Interventions

Basis of Exclusion	Number of Programs Excluded (N = 44)
<i>Low Confidence Design</i>	N = 19
• Weak comparison • No comparison	n = 10 n = 9
<i>Medium Confidence Design</i>	N = 12
• Reasonable design but insufficient evidence of group equivalence • Earlier or weaker implementation of an effective program	n = 8 n = 4
<i>High Confidence Design</i>	N = 5
• Good design but no outcomes • Good design but intervention addressed knowledge or attitudes only	n = 3 n = 2
<i>Information Missing from Evaluation or Report</i>	N = 8

REFERENCES

- Aber, J.L., Jones, S.M., Brown, J.L., Chaudry, N. & Samples, F. (1998). Resolving conflict creatively: Evaluating the developmental effects of a school-based violence prevention program in neighborhood and classroom context. Development & Psychopathology, 10(2), 187-213.
- Agee, V. L. (1979). Treatment of the violent incorrigible adolescent. Lexington, MA : Lexington Books.
- Ainsworth, M. D. (1969). Object relations, dependency, and attachment: A theoretical review of the infant-mother relationship. Child Development, 40(4), 969-1025.
- Ainsworth, M. D. (1985). Patterns of Attachment. American Psychologist, 38(2), 27-29.
- Ainsworth, M.D., Behar, M.C., Water, E. & Wall, S. (1978). Patterns of attachment: A psychological study of the strange situation. Hillsdale, NJ: Lawrence Erlbaum.
- Ajzen, I. & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.
- Akers, R.L. (1977) Deviant behavior: A social learning approach (2nd ed.). Belmont, CA: Wadsworth Press.
- Akers, R. L., Krohn, M. D., Lanza-Kaduce, L. & Radosevich, M. (1979). Social learning and deviant behavior: A specific test of a general theory. American Sociological Review, 44, 636-655.
- Allen, J. P., Kuperminc, G., Philliber, S. & Herre, K. (1994). Programmatic prevention of adolescent problem behaviors: The role of autonomy, relatedness, and volunteer service in the Teen Outreach Program. American Journal of Community Psychology, 22(5), 617-638.
- Allen, J. P., Philliber, S., Herrling, S. & Kuperminc, G. (1997). Preventing teen pregnancy and academic failure: Experimental evaluation of a developmentally-based approach. Child Development, 68(4), 729-742.
- Allen, J. P., Philliber, S. & Hoggson, N. (1990). School-based prevention of teen-age pregnancy and school dropout: Process evaluation of the national replication of the Teen Outreach Program. American Journal of Community Psychology, 18(4), 505-524.
- Andrews, D. W., Soberman, L. H. & Dishion, T. J. (1995). The Adolescent Transitions program for high-risk teens and their parents: Toward a school-based intervention. Education and Treatment of Children, 18(4), 478-498.
- Annie E. Casey Foundation. (1995). The path of most resistance: Reflections on lessons learned from new futures. Baltimore, MD.: Author.
- Bachman, J. G., Johnston, L. D. & O'Malley, P. M. (1981). Smoking, drinking, and drug use among American high school students: Correlates and trends, 1975-1979. American Journal of Public Health, 71, 59-69.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1973). Aggression: A social learning analysis. Englewood Cliffs, NJ: Prentice-Hall.

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.
- Bandura, A. (1989). Human agency in social cognitive theory. American Psychologist, 44(9), 1175-1184.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. Educational Psychologist, 28, 117-148.
- Barone, C., Weissberg, R. P., Kaspro, W. J., Voyce, C., Arthur, M. W. & Shriver, T. P. (1995). Involvement in multiple problem behaviors of young, urban adolescents. Journal of Primary Prevention, 15(3), 261-283.
- Battistich, V., Schaps, E., Watson, M. & Solomon, D. (1996). Prevention effects of the Child Development Project: Early findings from an ongoing multisite demonstration trial. Journal of Adolescent Research, 11(1), 12-35.
- Battistich, V., Solomon, D., Watson, M., Solomon, J. & Schaps, E. (1989). Effects of an elementary school program to enhance prosocial behavior on children's cognitive-social problem-solving skills and strategies. Journal of Applied Developmental Psychology, 10, 147-169.
- Becker, B. J. & Hedges, L. V. (1992). A review of the literature on the effectiveness of Comer's School Development Program. New York: The Rockefeller Foundation.
- Bell, R.M., Ellickson, P.L. & Harrison, E.R. (1993). Do drug prevention effects persist into high school? How Project ALERT did with ninth graders. Preventive Medicine, 22, 463-483.
- Bell, R. Q. (1986). Age-specific manifestations in changing psychosocial risk. In D.C. Farran & J. D. McKinney (Eds.), The concept of risk in intellectual and psychosocial development. New York: Academic Press.
- Belsky, J. (1993). Etiology of child maltreatment. A developmental-ecological analysis. Psychological Bulletin, 114, 413-434.
- Bensman, D. (1994). Direct assessment of a progressive public elementary school: Graduates of Central Park East. New York: Andrew W. Mellon Foundation, EXXON Corporation.
- Benson, P. L. (1990). Help-seeking for alcohol and drug problems: To whom do adolescents turn? Journal of Adolescent Chemical Dependency, 1(1), 83-94.
- Benson, P. L. (1992). Religion and substance abuse. In J. F. Schumaker, et. al. (Eds.), Religion and Mental Health, (pp. 211-220). New York: Oxford University Press.
- Benson, P. L., Donahue, M. J. & Erickson, J. A. (1990). Adolescence and religion: A review of the literature for 1970 to 1986. In L. L. Monty, & D. O. Moberg, et al., (Eds.), Research in the social scientific study of religion: A research annual, Vol. 1, (pp. 153-181). Greenwich, CT: Jai Press, Inc.
- Berube, M. S., et al. (Eds.) (1995). Webster's II New College Dictionary. New York: Houghton Mifflin.
- Berrueta-Clement, J. R., Schweinhart, L. J., Barnett, W. S., Epstein, A. S. & Weikart, D. P. (1984). Changed lives: The effects of the Perry Preschool Program on youths through age 19 (High/Scope Educational Research Foundation, Monograph 8). Ypsilanti, MI: High/Scope Press.

- Biglan, A. & Ary, D. V. (1985). Methodological issues in research on smoking prevention. National Institute on Drug Abuse: Research Monograph Series, 63, 170-195.
- Biglan, A., Glasgow, R. E., Ary, D. & Thompson, R. (1987). How generalizable are the effects of smoking prevention programs? Refusal skills training and parent messages in a teacher-administered program. Journal of Behavioral Medicine, 10(6), 613-628.
- Blechman, E. A., Kotanchik, N. L. & Taylor, C. J. (1981). Families and schools together: Early behavioral intervention with high risk children. Behavior Therapy, 12, 308-319.
- Blechman, E. A., Prinz, R. J. & Dumas, J. E. (1995). Coping, competence, and aggression prevention: Part 1. Development model. Applied & Preventive Psychology, 4, 211-232.
- Bond, L. A. & Compas, B. E. (Eds.) (1989). Primary prevention and promotion in the schools. Newbury Park, CA: Sage.
- Boston Compact Measurement Committee. (1995). Boston Compact III: Year One Implementation and Measurement. Unpublished report: Author.
- Botvin, G. J. (1983). Prevention of adolescent substance abuse through the development of personal and social competence. National Institute on Drug Abuse: Research Monograph Series, 47, 115-140.
- Botvin, G. J., Baker, E., Dusenbury, L., Botvin, E.M. & Diaz, T. (1995). Long-term follow-up results of a randomized drug abuse prevention trial in a white middle-class population. Journal of the American Medical Association, 273, 1106-1112.
- Botvin, G. J., Baker, E., Dusenbury, L., Tortu, S. & Botvin, E. M. (1990). Preventing adolescent drug abuse through a multimodal cognitive-behavioral approach: Results of a 3-year study. Journal of Consulting and Clinical Psychology, 58(4), 437-446.
- Botvin, G. J., Baker, E., Filazzola, A. D. & Botvin, E. M. (1990). A cognitive-behavioral approach to substance abuse prevention: One-year follow-up. Addictive Behaviors, 15, 47-63.
- Botvin, G. J., Baker, E., Renick, N. L., Filazzola, A. D. & Botvin, E. M. (1984). A cognitive-behavioral approach to substance abuse prevention. Addictive Behaviors, 9, 137-147.
- Botvin, G. J., Dusenbury, L., Baker, E., James-Ortiz, S. & Kerner, J. (1989). A skills training approach to smoking prevention among Hispanic youth. Journal of Behavioral Medicine, 12(3), 279-296.
- Botvin, G. J., Schinke, S. P., Epstein, J. A. & Diaz, T. (1994). Effectiveness of culturally focused and generic skills training approaches to alcohol and drug abuse prevention among minority youths. Psychology of Addictive Behaviors, 8(2), 116-127.
- Bowlby, J. (1969). Attachment and loss: Vol. 1. Attachment. New York: Basic Books.
- Bowlby, J. (1973). Attachment and loss: Vol. 2. Separation-anxiety and anger. New York: Basic Books.
- Bowlby, J. (1979). On knowing what you are not supposed to know and feeling what you are not supposed to feel. Canadian Journal of Psychiatry, 24(5), 403-408.
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. American Journal of Orthopsychiatry, 52(4), 664-678.

- Boykin A.W. & Toms, F. (1985). Black child socialization: A conceptual framework. In H. McAdoo & J. McAdoo (Eds.), Black children: Social, educational, and parental environments. Newbury Park, CA: Sage.
- Braucht, G. N., Kirby, M. W. & Berry, G. J. (1978). Psychosocial correlates of empirical types of multiple drug abusers. Journal of Consulting and Clinical Psychology, 46, 1463-1475.
- Bretherton, I., Bates, E., Benigni, L., Camaioni, L. & Volterra, V. (1979). Relationships between cognition, communication and quality of attachment. In E. Bates (Ed.), The emergence of symbols: Cognition and communication in infancy. New York: Academic Press.
- Brewer, D. D., Hawkins, J. D., Catalano, R. F. & Neckerman, H.J. (1995). Preventing serious, violent, and chronic juvenile offending: A review of selected strategies in childhood, adolescence, and the community. In J. C. Howell, B. Krisberg, J. D. Hawkins, & J. J. Wilson (Eds.), A sourcebook: Serious, violent, and chronic juvenile offenders (pp. 61-141). Thousand Oaks, CA: Sage Publications, Inc.
- Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA : Harvard University Press.
- Bronfenbrenner, U. (1995). Developmental ecology through space and time. A future perspective. In P. Moen, G. H. Elder, Jr. & K. Luscher (Eds.) Examining lives in context, (pp. 619-647). Washington, DC: American Psychological Association.
- Brook, J. S., Brook, D. W., Gordon, A. S., Whiteman, M. & Cohen, P. (1990). The psychosocial etiology of adolescent drug use: A family interactional approach. Genetic, Social, and General Psychology Monographs, 116(2).
- Brook, J. S., Lukoff, I. F. & Whiteman, M. (1980). Initiation into adolescent marijuana use. Journal of Genetic Psychology, 137, 133-142.
- Brophy, J. (1986). Teacher influences on student achievement. Special Issue: Psychological science and education. American Psychologist, 41(10), 1069-1077.
- Brophy, J. (1988). Research linking teacher behavior to student achievement: Potential implications for instruction of Chapter 1 students. Educational Psychologist, 23(3), 235-286.
- Brophy, J. & Good, T.L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), Handbook of research on training (3rd ed., pp. 328-375). New York: Macmillan.
- Brotherson, M. J., Cook, C. C., Cunconan, L. R. & Wehmeyer, M. L. (1995). Policy supporting self-determination in the environments of children with disabilities. Education and Training in Mental Retardation and Developmental Disabilities, 30(1), 3-14.
- Bry, B. H., McKeon, P. & Pandina, R. J. (1982). Extent of drug use as a function of number of risk factors. Journal of Abnormal Psychology, 91, 273-279.
- Cahill, M. (1995). A concept paper to guide evaluation of the New York City Department of Youth Services Beacons Institute. New York: Author.
- Caplan, M., Bennetto, L. & Weissberg, R.P. (1991). The role of interpersonal context in the assessment of social problem-solving skills. Journal of Applied Developmental Psychology, 12(1), 103-114.
- Caplan, M. Z., Weissberg, R. P., Grober, J. S., Sivo, P. J., Grady, K. & Jacoby, C. (1992). Social competence promotion with inner-city and suburban Young Adolescents: Effects on social adjustment and alcohol use, Journal of Consulting and Clinical Psychology, 60, 56-63.

- Cardenas, J. A., Montecel, M. R., Supik, J. D. & Harris, R. J. (1992). The Coca-Cola Valued Youth Program. Dropout prevention strategies for at-risk students. Texas Researcher, 3, 111-130.
- Carnegie Council on Adolescent Development. (1992). A matter of time. Risk and opportunity in the nonschool hours. Report of the Task Force on Youth Development and Community Programs. New York: Carnegie Corporation of New York.
- Carnegie Council on Adolescent Development. (1995). Great transitions. Preparing adolescents for a new century. Concluding report of the Carnegie Council on Adolescent Development. New York: Carnegie Corporation of New York.
- Carrera, M. A. (1995). Preventing adolescent pregnancy: In hot pursuit. SIECUS Report, 23(6), 16-20.
- Carrera, M. A. (1994). Carrera/Dempsey replication programs: 1993-94 Summary of client characteristics and outcomes. Accord, NY: Philliber Associates.
- Catalano, R. F. & Hawkins, J. D. (1996). The social development model: A theory of antisocial behavior. In J. D. Hawkins (Ed.), Delinquency and crime: Current theories (pp. 149-197). New York: Cambridge University Press.
- Center for Research on the Education of Disadvantaged Students (CDS). (1997, April 17). Project #7111: Success for All. [On-line].
- Chaiken, M., R., Maltz, M. D. & Smith, C. (1989). Evaluation of Girls Clubs of America's Friendly PEERsuasion Program. Unpublished final report. Indianapolis, IN: Girls Clubs of America.
- Cicchetti, D. (1984). The emergence of developmental psychopathology. Child Development, 55, 1-7.
- Cicchetti, D. & Cohen, D. J. (1995). Developmental psychopathology: Vol. 2, Risk disorder and adaptation. New York: Wiley.
- Clarke, R. V. G. & Cornish, D. B. (1978). The effectiveness of residential treatment for delinquents. In L. A. Hersov, M. Berger & D. Shaffer (Eds.), Aggression and antisocial behavior in childhood and adolescence (pp. 143-159). Oxford : Pergamon Press.
- Cohen, D. L. (1995). A lesson in caring. Education Week, 41-44.
- Coie, J. D., Watt, N. F., West, S. G., Hawkins, J. D., Asarnow, J. R., Markman, H. J., Ramey, S.L., Shure, M. B. & Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. American Psychologist, 48, 1013-1022.
- Conduct Problems Prevention Research Group. (1997). Prevention of antisocial behavior: Initial findings from the Fast Track Project. Presented at the Society for Research in Child Development Biennial Meeting, Washington, DC.
- Conduct Problems Prevention Research Group. (1997). Testing developmental theory of antisocial behavior with outcomes from the Fast Track Project. Presented at the Society for Research in Child Development Biennial Meeting, Washington, DC.
- Connell, D. B. & Turner, R. R. (1985). The impact of instructional experience and the effects of cumulative instruction. Journal of School Health, 55(8), 324-331.

- Connell, D. B., Turner, R. R. & Mason, E. F. (1985). Summary of findings of the School Health Education Evaluation: Health promotion effectiveness, implementation, and costs. Journal of School Health, 55(8), 316-321.
- Consortium on the School-Based Promotion of Social Competence. (1994). The school-based promotion of social competence: Theory, research, practice, and policy. In R. J. Haggerty, L. R. Sherrod, N. Garmezy & M. Rutter (Eds.), Stress, risk, and resilience in children and adolescents: Processes, mechanisms, and interventions (pp. 268-316). New York: Cambridge University Press.
- Cooper, J. R., Altman, F., Brown, B. S. & Czechowicz, D. (1983). Research on the treatment of narcotic addiction: State of the art. Rockville, MD : U.S. Department of Health and Human Services, Treatment Research Monograph Series.
- Corson, W., Dynarski, M., Haimson, J. & Rosenberg. (1996). A positive force: The first two years of youth fair chance. Princeton, N.J.: Mathematica Policy Research.
- Council on Prevention and Education: Substances, Inc. (COPES). (1995). Creating Lasting Connections: Final report. Unpublished report. Louisville: COPES, Inc.
- Cowen, E. L., Wyman, P. A., Work, W. C. & Iker, M. R. (1995). A preventive intervention for enhancing resilience among highly stressed urban children. The Journal of Primary Prevention, 15(3), 247-260.
- Darling, N. & Steinberg, L. (1993). Parenting style as context: An integrative model. Psychological Bulletin, 113(3), 487-496.
- Davis, L. & Tolan, P. H. (1993). Alternative and preventive interventions. In P.H. Tolan, & Cohler, B. J. (Eds.), Handbook of clinical research and practice with adolescents. Wiley Series on personality processes, (pp. 427-451). New York: Wiley.
- Deci, E.L. & Ryan, R.M. (1994). Promoting self-determined education. Scandinavian Journal of Educational Research, 38(1), 3-14.
- De Leon, G. & Ziegenfuss, J. T. (Eds.) (1986). Therapeutic Communities for Addictions. Springfield, IL : Charles C. Thomas.
- Deyhle, D. (1995). Navajo youth and anglo racism. Harvard Educational Review, 65(3), 403-444.
- Dielman, T. E., Kloska, D. D., Leech, S. T., Schulenberg, J. E. & Shope, J. T. (1992). Susceptibility to peer pressure as an explanatory variable for the differential effectiveness of an Alcohol Misuse Prevention program in elementary schools. Journal of School Health, 62(6), 233-237.
- Dielman, T. E., Shope, J. T., Leech, S. L. & Butchart, A. T. (1989). Differential effectiveness of an elementary school-based Alcohol Misuse Prevention program. Journal of School Health, 59(6), 255-263.
- Dodge, K. A., Pettit, G. S., McClaskey, C. L. & Brown, M. M. (1986). Social competence in children. Monographs of the Society for Research in Child Development, 51,(2) (Serial No. 213).
- Dolan, L., Kellam, S. & Brown, C. H. (1989). Short-term impact of a mastery learning preventive intervention on early risk behaviors. Baltimore: Johns Hopkins University.
- Donahue, M. J. & Benson, P. L. (1995). Religion and the well-being of adolescents. Journal of Social Issues, 51(2), 145-160.

- Douvan, E. & Adelson, J. (1966). The adolescent experience. New York: Wiley.
- Dubow, E., Smith, D., McBride, J., Edwards, S., & Merk, L. (1993). Teaching children to cope with stressful experiences: Initial implementation and evaluation of a primary prevention program. Journal of Clinical Child Psychology, 22, 428-440.
- Durlak, J.A. (1980). Comparative effectiveness of behavioral and relationship group treatment in the secondary prevention of school maladjustment. American Journal of Community Psychology, 8(3), 327-339.
- Durlak, J.A., Stein, M.A. & Mannario, A.P. (1980). Behavioral validity of a brief teacher rating scale (the AML) in identifying high-risk acting-out schoolchildren. American Journal of Community Psychology, 8(1), 101-115.
- Dryfoos, J. G. (1990). Adolescents at risk: Prevalence and prevention. New York: Oxford University Press.
- Dryfoos, J. G. (1994). Full-service schools: A revolution in health and social services for children, youth, and families. San Francisco: Jossey-Bass Inc.
- Dryfoos, J. G. (1996). Adolescents-at-risk revisited: Continuity, evaluation, and replication of prevention programs. Unpublished manuscript. New York: Author.
- Dubow, E. F., Schmidt, D., McBride, J., Edwards, S. & Merk, F. L. (1993). Teaching children to cope with stressful experiences: Initial implementation and evaluation of a primary prevention program. Journal of Clinical Child Psychology, 22(4), 428-440.
- Durlak, J.A. & Wells, A.M. (1997). Primary prevention mental health programs for children and adolescents: A meta-analytic review. Special issue: Meta-analysis of primary prevention programs. American Journal of Community Psychology, 25(2), 115-152.
- Durlak, J.A. (1980). Comparative effectiveness of behavioral and relationship group treatment in the secondary prevention of school maladjustment. American Journal of Community Psychology, 8(3), 327-339.
- Duryea, E. J. (1992). Psychometric and related deficits in preventive alcohol intervention programming. Psychological Reports, 70(1), 333-334.
- Duryea, E. J., English, G. & Okwumabua, J. O. (1987). Health promotion efforts in an isolated Hispanic community: The mora substance abuse prevention project. American Journal of Health Promotion, 1(4), 16-23.
- Duryea, E. J. & Okwumabua, J. O. (1988). Effects of a preventive alcohol education program after three years. Journal of Drug Education, 18(1), 23-31.
- Dusenbury, L., Botvin, G.J. & James-Ortiz, S. (1989). The primary prevention of adolescent substance abuse through the promotion of personal and social competence. Prevention in Human Services, 7(1), 201-224.
- Dusenbury, L. (1996) Making the grade: A guide to school drug prevention programs. Washington, D.C.: Drug Strategies.
- Dusenbury, L., Falco, M. & Lake, A. (1997). A review of the evaluation of 47 drug abuse prevention curricula available nationally. Journal of School Health, 64(4), 127-132.
- Elias, M. J., Gara, M. A., Schuyler, T. F., Branden-Muller, L. R. & Sayette, M. A. (1991). The promotion of social competence: Longitudinal study of a preventive school-based program. American Journal of Orthopsychiatry, 61(3), 409-417.

- Elias, M. J., Weissberg, R. P., Hawkins, J.D., Perry, C. L., Zins, J. E., Dodge, K. A., Kendall, P. C. & Gottfredson, D. C. (1994). The school-based promotion of social competence: Theory, research, practice, and policy. In R. J. Haggerty, N. Garnezy, M. Rutter, and L. Sherrod (Eds.), Stress, risk and resilience in children and adolescence: Processes, mechanisms, and interventions (pp. 269-315). New York: Cambridge University Press.
- Ellickson, P. L. & Bell, R. M. (1990). Drug prevention in junior high: A multi-site longitudinal test. Science, 247, 1299-1305.
- Ellickson, P. L., Bell, R. M. & Harrison, E. R. (1993). Changing adolescent propensities to use drugs: Results from Project ALERT. Health Education Quarterly, 20(2), 227-242.
- Ellickson, P. L., Bell, R. M. & McGuigan, K. (1993). Preventing adolescent drug use: Long-term results of a junior high program. American Journal of Public Health, 83(6), 856-861.
- Elliott, D. S., Huizinga, D. & Ageton, S. S. (1985). Explaining delinquency and drug use. Beverly Hills: Sage.
- Elliott, D. S., Huizinga, D. & Menard, S. (1989). Multiple problem youth: Delinquency, substance use and mental health problems. New York: Springer-Verlag.
- Emshoff, J., Avery, E., Raduka, G., Anderson, D. J., & Calvert, C. (1996). Findings from SUPER STARS: A health promotion program for families to enhance multiple protective factors. Journal of Adolescent Research, 11(1), 68-96.
- Englander-Golden, P. & Satir, V. (1990). Say it straight: From compulsions to choices. Palo Alto, CA: Science & Behavior Books.
- Ennett, S. T., Tobler, N. S., Ringwalt, C. L. & Flewelling, R. L. (1994). How effective is drug abuse resistance education? A meta-analysis of Project DARE outcome evaluations. American Journal of Public Health, 84(9), 1394-1401.
- Erikson, E. H. (1950). Childhood and Society. New York: Norton.
- Erikson, E.H. (1968). Identity: Youth and crisis. New York: Norton.
- Eron, L. D., Gentry, J. H. & Schlegel, P. (Eds.). (1994). Reason to hope: A psychosocial perspective on violence and youth. Washington, DC: American Psychological Association.
- Ewalt, P.L. & Mokuau, N. (1995). Self-determination from a Pacific perspective. Social Work, 40(2), 168-175.
- Farrell, A. D. & Meyer, A. L. (1997). The effectiveness of a school-based curriculum for reducing violence among urban sixth-grade students. American Journal of Public Health, 87(6), 979-984.
- Farrell, A. D. & Meyer, A. L. (1998). Evaluation of Responding in Peaceful and Positive Ways (RIPP): A school-based prevention program for reducing violence among urban adolescents. Richmond, VA: Virginia Commonwealth University. Submitted for publication.
- Farrell, A. D. & Meyer, A. L. (1998). Social skills training to promote resilience in urban sixth-grade students: One product of an action strategy to prevent youth violence in high-risk environments. Unpublished manuscript. Richmond, VA: Virginia Commonwealth University.
- Farrell, A. D., Meyer, A. L. & Dahlberg, L. L. (1996). Richmond youth against violence: A school-based program for urban adolescents. American Journal of Preventive Medicine, 12(5 Suppl), 13-21.

- Farrell, A.D. (1998). Continuation grant program narrative: Longitudinal evaluation and extension of the RIPP program for urban youth. Richmond, VA: Author.
- Farrington, D. P. (1992). The need for longitudinal-experimental research on offending and antisocial behavior. J. McCord & R. E. Tremblay (Eds.), Preventing antisocial behavior (pp. 353-376). New York: Guilford.
- Farrington, D. P. (1996). The explanation and prevention of youthful offending. In J. D. Hawkins (Ed.), Delinquency and crime: Current theories, (pp. 68-148). New York: Cambridge University Press.
- Ferguson, R.F., Clay, P.L., Snipes, J.C. & Roaf, P. (1996). Youthbuild in developmental perspective: A formative evaluation of the YouthBuild demonstration project. U.S Department of Housing and Urban Development. John F. Kennedy School of Government, Harvard University.
- Fetterman, D. M., Kaftarian, S. J. & Wandersman, A. (Eds.). (1996). Empowerment evaluation. Knowledge and tools for self-assessment and accountability. Newbury Park, CA: Sage.
- Field, S. (1996). Self-determination instructional strategies for youth with learning disabilities. Journal of Learning Disabilities, 29(1), 40-52.
- Fishbein, M., Bandura, A., Triandis, H. C., Kanfer, F. H., Becker, M. H. & Middlestadt, S. E.. (1991). Factors influencing behavior and behavior change. Final report to the Theorist's Workshop, Washington, DC.
- Fishbein, M. & Ajzen, I. (1975). Belief, attitude, intention and behavior. Reading, MA : Addison-Wesley.
- Flay, B. R., Phil, D., Brannon, B. R., Johnson, C. A., Hansen, W. B., Ulene, A. L., Whitney-Saltiel, D. A., Gleason, L. R., Sussman, S., Gavin, M. D., Glowacz, K. M., Sobol, D. F. & Spiegel, D. C. (1988). The television, school, and family smoking prevention and cessation project. Preventive Medicine, 17, 585-607.
- Fleisher, S. J., Avelar, C., Latorre, S. E., Ramirez, J., Cubillos, S., Christiansen, H. & Blaufarb, H. (1995). Evaluation of a Judo/Community Organization Program to treat predelinquent Hispanic immigrant early adolescents. Hispanic Journal of Behavioral Sciences, 17(2), 237-248.
- Friedman, A. & Beschner, G. M. (1985). Treatment Services for Adolescent Substance Abusers. Rockville, MD : U.S. Department of Health and Human Services.
- Garbarino, J. & Abramowitz, R. (1992). Sociocultural risk and opportunity. In J. Garbarino, (Ed.), Children and families in the social environment (2nd ed. pp. 35-70). New York: Aldine De Gruyter.
- Gardner, H. (1993). Multiple intelligences: The theory in practice. New York: Basic Books.
- Gilligan, C. (1982). In a different voice. Cambridge MA: Harvard University Press.
- Gold, M. & Mann, D. W. (1984). Expelled to a friendlier place: A study of effective alternative schools. Ann Arbor, MI: University of Michigan.
- Goleman, D. (1995). Emotional intelligence: Why it can matter more than IQ. New York: Bantam Books.
- Gordon, R. (1983). An operational classification of disease prevention. Public Health Reports, 98, 107-109.

- Gordon, R. (1987). An operational classification of disease prevention. In J. A. Sternberg & M. M. Silverman (Eds.). Preventing mental disorders: A research perspective, (pp. 20-26) (DHHS Publication No. ADM 87-1492). Washington, DC: U.S. Government Printing Office.
- Gottfredson, D. C., Gottfredson, G. D. & Hybl, L. G. (1993). Managing adolescent behavior. A multiyear, multischool study. American Educational Research Journal, 30(1), 179-215.
- Gottfredson, G.D. (1988). A workbook for your school improvement program. Baltimore, Md.: Johns Hopkins University.
- Greenberg, M. T. (1998, August). Testing developmental theory of antisocial behavior with outcomes from the Fast Track Prevention Project. Paper presented in a symposium at the annual meetings of the American Psychological Association, Chicago.
- Greenberg, M. T. (1996). The PATHS Project: Preventive intervention for children: Final report to NIMH. Seattle, WA: University of Washington, Department of Psychology.
- Greenberg, M. T., Cichetti, D. & Cummings, E. M. (Eds.). (1990). Attachment in the preschool years. Chicago: University of Chicago Press.
- Greenberg, M. T. & Kusche, C. A. (1997, April). Improving children's emotion regulation and social competence: The effects of the PATHS curriculum. Paper presented at the annual meeting of the Society for Research in Child Development, Washington, D.C.
- Greenberg, M. T., Kusche, C. A., Cook, E. T. & Quamma, J. P. (1995). Promoting emotional competence in school-aged children: The effects of the PATHS Curriculum. Development in Psychopathology, 7, (pp. 117-136). Cambridge University Press.
- Greene, R. W. & Ollendick, T. H. (1993). Evaluation of a multidimensional program for sixth-graders in transition from elementary to middle school. Journal of Community Psychology, 21(2), 162-176.
- Grossman, J. B. & Sipe, C. L. (1992, Winter). Summer Training and Education Program (STEP): Report on long-term impacts. Philadelphia, PA: Public/Private Ventures.
- Grossman, B., Wirt, R. & Davids, A. (1985). Self-esteem, ethnic identity, and behavioral adjustment among Anglo and Chicano adolescents in West Texas. Journal of Adolescence, 8(1), 57-68.
- Grossman, D. C., Neckerman, H. J., Koepsell, T. D., Liu, P. Y., Asher, K. N., Beland, K., Frey, K. & Rivara, F. P. (1997). Effectiveness of a violence prevention curriculum among children in elementary school. Journal of the American Medical Association, 277(20), 1605-1611.
- Hahn, A., Leavitt, T. & Aaron, P. (1994). Evaluation of the Quantum Opportunities Program (QOP). Did the program work? A report on the post secondary outcomes and cost-effectiveness of the QOP Program (1989-1993). Waltham, MA: Brandeis University Heller Graduate School Center for Human Resources.
- Hansen, W. B., Johnson, C. A., Flay, B. R., Phil, D., Graham, J. W. & Sobel, J. (1988). Affective and social influence approaches to the prevention of multiple substance abuse among seventh grade students: Results from Project SMART. Preventive Medicine 17, 135-154.
- Harrell, A. & Adams, W. (1995). Reducing family risk of drug use and delinquency: Preliminary findings from the evaluation of the Children at Risk Program. Paper presented at the 47th Annual Meeting of the American Society of Criminology. November 16, Boston.

- Hausman, A. J., Spivak, H. & Prothrow-Stith, D. (1995). Evaluation of a community-based youth violence prevention project. Journal of Adolescent Health, 17(6), 353-359.
- Hawkins, J. D. & Catalano, R. F. (1990). Intensive family preservation services: Broadening the vision for prevention. In J. K. Whittaker, J. Kinney, E.M. Tracy & C. Booth (Eds.), Reaching high-risk families: Intensive family preservation in human services, (pp. 179-192). New York: Aldine de Gruyter.
- Hawkins, J. D., Catalano, R. F. & Associates. (1992). Communities That Care: Action for drug abuse prevention. San Francisco: Jossey-Bass.
- Hawkins, J. D., Catalano, R. F., Jones, G. & Fine, D. N. (1987). Delinquency prevention through parent training: Results and issues from work in progress. In J. Q. Wilson, & G. C. Loury (Eds.), From children to citizens: Families, schools, and delinquency prevention (Vol. 3, pp. 186-204). New York: Springer-Verlag.
- Hawkins, J. D., Catalano, R. F., Kosterman, R., Abbott, R. & Hill, K. G. (1999). Preventing adolescent health-risk behaviors by strengthening protection during childhood. In press.
- Hawkins, J. D., Catalano, R. F. & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. Psychological Bulletin, 112, 64-105.
- Hawkins, J. D., Jenson, J. M., Catalano, R. F. & Lishner, D. M. (1988). Delinquency and drug abuse: Implications for social services. Social Service Review, 62, 258-284.
- Hawkins, J. D., Lishner, D. M., Catalano, R. F. & Howard, M. O. (1986). Childhood predictors of adolescent substance abuse: Toward an empirically grounded theory. Journal of Children in Contemporary Society, 18, 11-48.
- Hawkins, J. D. & Weis, J. G. (1985). The social development model: An integrated approach to delinquency prevention. Journal of Primary Prevention, 6, 73-97.
- Haynes, N. M. (Ed.) (1994). School Development Program. School Development Program Research Monograph. New Haven, CT: Yale University, Child Study Center.
- Haynes, N. M., Gebreyesus, S. & Comer, J. P. (1993). Selected case studies of national implementation of the School Development Program. [Unpublished report]. New Haven, CT: Yale Child Study Center.
- Haynes, N. M. & Comer (1993). The Yale school development program: process, outcomes, and policy implications. Urban Education, 8(2), 166-199.
- Hernandez, D.J. (1995). Changing demographics: Past and future demands for early childhood programs. The future of children, 5(3), 145-160.
- Hernandez, L. P. & Lucero, E. (1996). DAYS La Familia Community Drug and Alcohol Program: Family-centered model for working with inner-city Hispanic families. The Journal of Primary Prevention, 16(3), 255-272.
- Higgins, C., Furano, K., Toso, C. & Branch, A. Y. (1991). I Have a Dream in Washington, D.C.: Initial report. Philadelphia, PA: Public/Private Ventures.
- Hill, H., Piper, D. & Moberg, D. P. (1994). "Us planning prevention for them:" The social construction of community prevention for youth. International Quarterly of Community Health Education, 15(1), 65-89.

- Hill, H. M., Soriano, F. I., Chen, S. A. & LaFromboise, T. D. (1994). Sociological factors in the etiology and prevention of violence among ethnic minority youth. In L. D. Eron, J. H. Gentry & P. Schlegel (Eds.). Reason to hope: A psychosocial perspective on violence and youth (pp. 59-100). Washington DC : American Psychological Association.
- Hirschi, T. (1969). Causes of delinquency. Berkeley, CA: University of California Press.
- Hoffman, M. L. (1981). Is altruism part of human nature? Journal of Personality and Social Psychology, 40, 121-127.
- Holmberg, M. B. (1985). Longitudinal studies of drug abuse in a fifteen-year-old population: I. Drug career. Acta Psychiatrica Scandinavica, 71, 67-79.
- Holden, G.W., Moncher, M.S., Schinke, S.P. & Barker, K.M. (1990). Self-efficacy of children and adolescents: A meta-analysis. Psychological Reports, 66(3), 1044-1046.
- Horacek, H. J., Ramey, C. T., Campbell, F. A., Hoffmann, K. P. & Fletcher, R. H. (1987). Predicting school failure and assessing early intervention with high-risk children. Journal of the American Academy of Child and Adolescent Psychiatry, 26, 758-763.
- Howard, M. & McCabe, J. B. (1990). Helping teenagers postpone sexual involvement. Family Planning Perspectives, 22(1), 21-26.
- Howell, J. C., Krisberg, B., Hawkins, J. D. & Wilson, J. J. (Eds.). (1995). A sourcebook: Serious, violent, and chronic juvenile offenders. Thousand Oaks, CA: Sage Publications, Inc.
- Huesmann, L.R., Maxwell, C.D., Eron, L., Dahlberg, L.L., Guerra, N.G., Tolan, P.H., Van Acker, R. & Henry, D. (1996). Evaluating a cognitive/ecological program for the prevention of aggression among urban children. American Journal of Preventive Medicine, 12(5), 120-128.
- Human Organization Science Institute (1990). Final Evaluation Report. Absenteeism Prevention Program. Pennsylvania Comprehensive Drug and Alcohol Prevention/Intervention Program. Villanova, PA: Villanova University.
- Hundleby, J. D. & Mercer, G. W. (1987). Family and friends as social environments and their relationship to young adolescents' use of alcohol, tobacco, and marijuana. Journal of Marriage and the Family, 49, 151-164.
- Institute for Prevention Research. (1994, January 25). Long-term follow-up results prove drug abuse prevention works. Cornell Prevention Update [News Release], Institute for Prevention Research, Cornell University Medical College, Ithaca, NY.
- Institute of Medicine (IOM), Committee on Prevention of Mental Disorders. (1994). Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research, P. J. Mrazek & R. J. Haggerty (Eds.). Washington, DC: National Academy Press.
- Janz, N. K. & Becker, M. H. (1984). The health belief model: A decade later. Health Education Quarterly, 11, 1-47.
- Jessor, R. (1976). Predicting time of onset of marijuana use: A developmental study of high school youth. Journal of Consulting and Clinical Psychology, 44, 125-134.
- Jessor, R. (1985). Bridging etiology and prevention in drug abuse research. In C. L. Jones and R. J. Battjes (Eds.), Etiology of drug abuse: Implications for prevention (NIDA Research Monograph 56, pp. 257-268). Washington, DC: U.S. Government Printing Office.

- Jessor, R. (1992). Risk behavior in adolescence: A psychosocial framework for understanding and action. Developmental Review, 12(4), 374-390.
- Jessor, R. (1993). Successful adolescent development among youth in high-risk settings. American Psychologist, 48, 117-126.
- Jessor, R., Donovan, J. E. & Costa, F. M. (1991). Beyond adolescence: Problem behavior and young adult development. Cambridge, England: Cambridge University Press.
- Jessor, R. & Jessor, S. L. (1977). Problem behavior and psychosocial development: A longitudinal study of youth. New York: Academic Press.
- Jessor, R., VanDenBos, J., Vanderryn, J., Costa, F. M. & Turbin, M.S. (1997). Protective factors in adolescent problem behavior: Moderator effects and developmental change. Developmental Psychology, 31(6), 923-933.
- Johnson, C. A., Pentz, M. A., Weber, M. D., Dwyer, J. H., Baer, N., MacKinnon, D. P. & Hansen, W. B. (1990). Relative effectiveness of comprehensive community programming for drug abuse prevention with high-risk and low-risk adolescents. Journal of Consulting and Clinical Psychology, 58(4), 447-456.
- Johnson, K., Strader, T., Berbaum, M., Bryant, D., Bucholtz, G., Collins, D. & Noe, T. (1996). Reducing alcohol and other drug use by strengthening community, family, and youth resiliency: An evaluation of the Creating Lasting Connections Program. Journal of Adolescent Research, 11(1). 36-67.
- Johnston, L. D.; Bachman, J. G. & O'Malley, P. M. (1979). 1979 Highlights: Drugs and the nation's high school students, five year national trends. Rockville, Maryland : U.S. Department of Health, Education and Welfare, Alcohol, Drug Abuse and Mental Health Administration.
- Johnston, L. D., O'Malley, P. M. & Bachman, J. G. (1985). Drug Use, Drinking, and Smoking: National Survey Results from High School, College, and Young Adult Populations (DHHS Publication No. ADM 89-1638). Washington, DC: U.S. Government Printing Office.
- Johnston, L. D., O'Malley D. M. & Bachman, J. G. (1994). Monitoring the Future, National High School Senior Survey News Release January 31, 1994, University of Michigan Institute for Social Research.
- Johnston, M.W. & Bell, A.P. (1995). Romantic emotional attachment: Additional factors in the development of the sexual orientation of men. Journal of Counseling and Development, 73(6), 621-625.
- Jorgensen, S. R., Potts, V. & Camp, B. (1993). Project Taking Charge: Six-month follow-up of a pregnancy prevention program for early adolescents. Family Relations, 42, 401-406.
- Kandel, D. B., Kessler, R. C. & Margulies, R. (1978). Antecedents of adolescent initiation into stages of drug use: A developmental analysis. Journal of Youth & Adolescence, 7(1), 13-40.
- Kellam, S. G. & Brown H. (1982). Social adaptational and psychological antecedents of adolescent psychopathology ten years later. Baltimore: Johns Hopkins University.
- Kellam, S. G. & Rebok, G. W. (1992) Building developmental and etiological theory through epidemiologically based preventive intervention trials. In J. McCord & R.E. Tremblay (Eds.), Preventing antisocial behavior: Interventions from birth through adolescence (pp. 162-195). New York: Guilford.

- Kemple, J. J. (1997). Communities of support for students and teachers: Emerging findings from a 10-site evaluation. Manpower Demonstration Research Corporation Career Academies.
- Kim, S., McLeod, J. H. & Shantzis, C. (1989). An outcome evaluation of refusal skills program as a drug abuse prevention strategy. Journal of Drug Education, 19(4), 363-371.
- Kirby, D. (1997). No easy answers: Research findings on programs to reduce teen pregnancy. Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- Kirby, D., Barth, R. P., Leland, N. & Fetro, J. V. (1991). Reducing the Risk: Impact of a new curriculum on sexual risk-taking. Family Planning Perspectives, 23(6), 253-263.
- Kirby, D., Harvey, P. D., Claussenius, D. & Novar, M. (1989). A direct mailing to teenage males about condom use: Its impact on knowledge, attitudes and sexual behavior. Family Planning Perspectives, 21(1), 12-18.
- Kirby, D., Korpi, M., Barth, R. P. & Cagampang, H. H. (1995, September). Evaluation of Education Now and Babies Later (ENABL): Final Report. Berkeley, CA: University of California, School of Social Welfare, Family Welfare Research Group.
- Kohlberg, L. (1963). The development of children's orientations toward a moral order: I. Sequence in the development of moral thought. Vita Humana, 6, 11-33.
- Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach. In D. A. Goslin (Ed.), Handbook of socialization theory and research. Chicago: Rand McNally.
- Kohlberg, L. (1981). Essays on moral development (Vol. 1). New York: Harper and Row.
- Kornberg, M. S. & Caplan, G. (1980). Risk factors and preventive intervention in child psychotherapy: A review. Journal of Primary Prevention, 1, 71-133.
- Kreutter, K. J., Gewirtz, H., Davenney, J. E. & Love, C. (1991). Drug and alcohol prevention for sixth graders: First-year findings. Adolescence, 26(102), 287-293.
- Kusche, C.A. & Greenberg, M.T. (1994). Teaching PATHS in your classroom: The PATHS (Promoting Alternative Thinking Strategies) Curriculum Instruction Manual. Seattle: Developmental Research Programs.
- LaFromboise, T. D., Coleman, H. L. K. & Gerton, J. (1993). Psychological Impact of Biculturalism: Evidence and Theory. Psychological Bulletin, 114(3), 395-412.
- LaFromboise, T. D., Rowe, W. (1983). Skills training for bicultural competence: Rationale and application. Journal of Counseling Psychology, 30(4), 589-595.
- LaFromboise, T. D., Trimble, J. E. & Mohatt, F. V. (1990). Counseling intervention and American Indian tradition: An integrative approach. Counseling Psychologist, 18(4), 628-654.
- Levine, I. S. & Zimmerman, J. D. (1996). Using qualitative data to inform public policy: Evaluating "Choose to De-Fuse." American Journal of Orthopsychiatry, 66(3), 363-377.
- Locke, E. A., Frederick, E., Lee, C. & Bobko, P. (1984). Effect of self-efficacy, goals, and task strategies on task performance. Journal of Applied Psychology, 69, 241-251.
- Loeber, R. (1990). Development and risk factors of juvenile antisocial behavior and delinquency. Clinical Psychology Review, 10, 1-41.

- Loeber, R., Stouthamer-Loeber, M. S., Van Kammen, W. & Farrington, D. P. (1991). Initiation, escalation, and desistance in juvenile offending and their correlates. Journal of Criminal Law and Criminology, 82, 36-82.
- Longhead, T. A., Liu, S-H. & Middleton, E. B. (1995). Career development for at-risk youth: A program evaluation. The Career Development Quarterly, 43, 274-284.
- Lorion, R.P. (Ed.). (1990). Protecting the children: Strategies for optimizing emotional and behavioral development. Prevention in Human Services. New York: Haworth Press.
- LoSciuto, L., Freeman, M. A., Harrington, E., Altman, B. & Lanphear, A. (1997). An outcome evaluation of the Woodrock Youth Development Project. Journal of Early Adolescence, 17(1), 51-66.
- LoSciuto, L., Rajala, A.K., Townsend, T. N. & Taylor, A. S. (1996). An outcome evaluation of Across Ages: An intergenerational mentoring approach to drug prevention. Journal of Adolescent Research, 11(1), 116-129.
- Loughead, T. A., Liu, S. H. & Middleton, E. B. (1995). Career development for at-risk youth: A program evaluation. The Career Development Quarterly, 43(3), 274-284.
- Luthar, S. S. & Zigler, E. (1992). Intelligence and social competence among high-risk adolescents. Development and Psychopathology, 4, 287-299.
- Mahler, M. S., Pine, F. & Bergman, A. (1975). The psychological birth of the human infant. New York: Basic Books.
- Malvin, J. H., Moskowitz, J. M., Schaeffer, G. A. & Schaps, E. (1984). Teacher training in affective education for the primary prevention of adolescent drug abuse. American Journal of Drug and Alcohol Abuse, 10(2), 223-235.
- Marsh, J. C. & Wirick, M. A. (1991). Evaluation of Hull House teen pregnancy and parenting program. Evaluation and Program Planning, 14(1-2), 49-61.
- Maslin-Cole, C. & Spieker, S. J. (1990). Attachment as a basis for independent motivation. In M.T. Greenberg, D. Cicchetti & E.M. Cummings, (Eds.), Attachment in the pre-school years, (pp. 245-272). Chicago, IL: The University of Chicago Press.
- Masten, A. S., Best, K. M. & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. Development and Psychopathology, 2, 425-444.
- Mendelberg H. (1986). Identity conflict in Mexican-American adolescents. Adolescence, 21, (81), 214-24.
- Mendt, K.L. (1996). Spiritual themes in young adult books. ALAN Review, 23(3), 34-37.
- Metis Associates, Inc. (1990) The Resolving Conflict Creatively Program, 1988-1989: Summary of Significant Findings. New York: Metis Associates.
- Metropolitan Area Child Study Research Group (1997). A cognitive-ecological approach to preventing aggression in urban and inner-city settings: Preliminary Outcomes. Under review. Chicago, IL: University of Illinois at Chicago.
- Meyer, A.L. & Lausell, L. (1996). The value of including a higher power in efforts to prevent violence and promote optimal outcomes during adolescence. In R.L. Hampton & P. Jenkins (Eds.) Preventing violence in America: Issues in children's and families' lives. (Vol. 4, pp. 115-132.)

- Millsap, M. A., Gamse, B., Beckford, I., Johnston, K., Chase, A., Hailey, L., Brigham, N. & Goodson, B. (1995). The School Development Program and implementation: Preliminary evaluation evidence. Paper presented at the meeting of the American Education Research Association, San Francisco, CA.
- Mitchell, D. A., Thomas, B. H., Devlin, M. C., Goldsmith, C. H., Willan, A., Singer, J., Marks, S., Watters, D., & Hewson, S. (1997). Evaluation of an educational program to prevent adolescent pregnancy. Health Education and Behavior, 24(3), 300-312.
- Moberg, D. P. & Piper, D. L. (1995, June 16). Behavioral outcomes for the Healthy For Life Project. Presented at the 1995 meeting of the Prevention Research Society.
- Moberg, D. P., Piper, D. L., Wu, J. & Serlin, R. C. (1993). When total randomization is impossible: Nested randomized assignment. Evaluation Review, 17(3), 271-291.
- Moore, C. W. & Allen, J. P. (1996). The effects of volunteering on the young volunteer. Journal of Primary Prevention, 17 (2), 231-258..
- Moore, K. A., Sugland, B. W., Blumenthal, C., Glei, D. & Snyder, N. (1995). Adolescent pregnancy prevention programs. Interventions and evaluations. Washington, DC: Child Trends.
- Morley, E. & Rossman, S. (1994). School-based intervention for at risk youth. Paper presented at the 45th annual meeting of the American Society of Criminology, Miami, FL.
- Moskowitz, J. M., Malvin, J. H., Schaeffer, G. A. & Schaps, E. (1984). An experimental evaluation of a drug education course. Journal of Drug Education, 14, 9-22.
- Morrison, D. M., Simpson, E. E., Gillmore, M. R., Wells, E. A. & Hoppe, M. J. (1994). Children's decisions about substance use: An application and extension of the theory of reasoned action. Unpublished manuscript. School of Social Work, University of Washington.
- National Center for Health Education. (1997). Growing Healthy: An examination of comprehensive school health education's role in healthy lifestyles for youth. Publication materials. Waco, TX: WRS Group.
- National Institute on Drug Abuse. (1997). Preventing drug use among children and adolescents: A research based guide. Rockville, MD:.
- National Research Council (1993). Losing Generations: Adolescents in High-Risk Settings. Panel on High-Risk Youth, National Research Council. Washington, DC: National Academy Press.
- National Research Council, Institute of Medicine (1996). Youth Development and Neighborhood Influences: Challenges and Opportunities, Summary of a workshop. Report by the Committee on Youth Development, Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. (Eds.) R. Chalk and D.A. Phillips. Washington, DC: National Academy Press.
- Neufeld, B. & LaBue, M. A. (1994). The implementation of the School Development Program in Hartford: Final evaluation report. Cambridge, MA: Education Matters, Inc.
- Newcomb, M. D., Maddahian, E. & Bentler, P. M. (1986). Risk factors for drug use among adolescents: Concurrent and longitudinal analyses. American Journal of Public Health, 76, 525-530.

- Newcomb, M. D., Maddahian, E., Skager, R. & Bentler, P. M. (1987). Substance abuse and psychosocial risk factors among teenagers: Associations with sex, age, ethnicity and type of school. American Journal of Drug and Alcohol Abuse, 13, 413-433.
- Offer, D. & Offer, J. (1975). Three developmental routes through normal male adolescence. Adolescent Psychiatry, 4, 121-141.
- Office of Juvenile Justice and Delinquency Prevention (1995). Guide for implementing the comprehensive strategy for serious, violent, and chronic juvenile offenders. Washington, DC: Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice.
- O'Donnell, J., Michalak, E. A. & Ames, E. B. (1997). Inner-city youths helping children: After-school programs to promote bonding and reduce risk. Social Work in Education, 19(4), 231-241.
- Orr, M.T., Fancsali, C. & Bolden, C. (1997) Improving chances and opportunities: The accomplishments and lessons from a national community-focused youth services initiative. Youth Fair Chance: Six years in the field. Prepared by: Academy for Educational Development.
- Parham, T. & Helms, J. (1985). Relation of racial identity attitudes to self-actualization and affective states of Black students. Journal of Counseling Psychology, 32, 431-440.
- Parker, V. C., Sussman, S., Crippens, D. L., Scholl, D. & Elder (1996). Qualitative development of smoking prevention programming for minority youth. Addictive Behaviors, 21(4), 521-525.
- Patterson, G. R., Chamberlain, P. & Reid, J. B. (1982). A comparative evaluation of a parent training program. Behavior Therapy, 13, 638-650.
- Paul, M. & Fisher, J. (1980). Correlates of self-concept among Black early adolescents. Journal of Youth and Adolescence, 9, 163-173.
- Pedro-Carroll, J. L., Alpert-Gillis, L. J. & Cowen, E. L. (1992). An evaluation of the efficacy of a preventive intervention for 4th-6th grade urban children of divorce. The Journal of Primary Prevention, 13(2), 115-130.
- Pedro-Carroll, J. L. & Cowen, E. L. (1985). The Children of Divorce Intervention Program: An investigation of the efficacy of a school-based prevention program. Journal of Consulting and Clinical Psychology, 53(5), 603-611.
- Pedro-Carroll, J. L., Cowen, E. L., Hightower, D. & Guare, J. C. (1986). Preventive intervention with latency-aged children of divorce: A replication study. American Journal of Community Psychology, 14(3), 277-289.
- Penning, M. & Barnes, G. E. (1982). Adolescent marijuana use: A review. International Journal of the Addictions, 17, 749-791.
- Pentz, M. A., Cormack, C., Flay, B., Hansen, W. B. & Johnson, C. A. (1986). Balancing program and research integrity in community drug abuse prevention: Project STAR approach. Journal of School Health, 56(9), 389-393.
- Pentz, M. A., Dwyer, J. H., Johnson, C. A., Flay, B. R., Hansen, W. B., MacKinnon, D. P., Chou, C. P., Rohrbach, L. A. & Montgomery, S. B. (1994). Long-term follow-up of a multicomunity trial for prevention of tobacco, alcohol, and drug use. Unpublished manuscript.

- Pentz, M. A., Dwyer, J. H., MacKinnon, D. P., Flay, B. R., Hansen, W. B., Wang, E. Y. I. & Johnson, C. A. (1989). A multi-community trial for primary prevention of adolescent drug abuse: Effects on drug use prevalence. Journal of the American Medical Association, 261, 3259-3266.
- Pentz, M. A., MacKinnon, D. P., Dwyer, J. H., Wang, E. Y. I., Hansen, W. B., Flay, B. R. & Johnson, C. A. (1989). Longitudinal effects of the Midwestern Prevention Project on regular and experimental smoking in adolescents. Preventive Medicine, 18, 304-321.
- Pentz, M. A., Trebow, E. A., Hansen, W. B., MacKinnon, D. P., Dwyer, J. H., Johnson, C. A., Flay, B. R., Daniels, S. & Cormack, C. (1990). Effects of program implementation on adolescent drug use behavior: The Midwestern Prevention Project (MPP). Evaluation Review, 14(3), 264-289.
- Perry, C. L. & Jessor, R. (1985). The concept of health promotion and the prevention of adolescent drug abuse. Health Education Quarterly, 12(2), 169-184.
- Perry, C. L., Kelder, S. H. & Komro, K. A. (1993). The social world of adolescents: Family, peers, schools, and the community. In S. G. Millstein, A. C. Petersen & E.O. Nightengale (Eds.) Promoting the Health of Adolescents: New Directions for the Twenty-First Century (pp. 73-96). New York: Oxford University Press.
- Perry, C. L., Williams, C. L., Veblen-Mortenson, S., Toomey, T.L., Komro, K.A., Anstine, P.A., McGovern, P.G., Finnegan, J.R., Forster, J.L., Wagenaar, A.C. & Wolfson, M. (1996). Project Northland: Outcomes of a communitywide alcohol use prevention program during early adolescence. American Journal of Public Health, 86(7), 956-965.
- Peterson, P. L., Hawkins, J. D., Abbott, R. D. & Catalano, R.F. (1994). Disentangling the effects of parental drinking, family management, and parental alcohol norms on current drinking by Black and White adolescents. Journal of Research on Adolescence, 4, 203-227.
- Philliber Research Associates. (1994, May). An evaluation of the Caring Communities Program at Walbridge Elementary School. St. Louis, MO: Author.
- Phinney, J.S. (1989). Stages of ethnic identity in minority group adolescents. Journal of Early Adolescence, 9, 34-49.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. Psychological Bulletin, 108, 499-514.
- Phinney, J. S. (1991). Ethnic identity and self-esteem. A review and integration. Hispanic Journal of Behavioral Sciences, 13, 193-206.
- Phinney, J. S. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with diverse groups. Journal of Adolescent Research, 7, 156-176.
- Phinney, J. S. & Devich-Navarro, M. (1997). Variations of bicultural identification among African-American and Mexican-American Adolescents. Journal of Research on Adolescence, 7(1), 3-32.
- Phinney, J. S., Lochner, B. & Murphy, R. (1990). Ethnic identity development and psychological adjustment in adolescence. In A. Stiffman & L. Davis (Eds.), Ethnic Issues in Adolescent Mental Health (pp. 53-72). Newbury Park, CA: Sage.
- Piaget, J. (1965). The moral judgment of the child. New York: Free Press.

- Piaget, J. (1952). The origins of intelligence in children. New York: International Universities Press.
- Piper, D. L., King, M. J. & Moberg, D. P. (1993). Implementing a middle school health promotion research project: Lessons our textbook didn't teach us. Evaluation and Program Planning, 16, 171-180.
- Piper, D. L. & Moberg, D. P. (1993, October). The Healthy For Life Project: Initial outcome results. Poster session presented at the American Public Health Association meeting, San Francisco, CA.
- Pittman, K. J. (1991). Promoting youth development: Strengthening the role of youth-serving and community organizations. Report prepared for The U.S. Department of Agriculture Extension Services. Washington, DC: Center for Youth Development and Policy Research.
- Pittman, K. J. & Fleming, W. E. (1991, September). A new vision: Promoting youth development. Written transcript of live testimony by Karen J. Pittman given before The House Select Committee on Children, Youth and Families. Washington, DC: Center for Youth Development and Policy Research.
- Pittman, K. J., O'Brien, R. & Kimball, M. (1993). Youth development and resiliency research: Making connections to substance abuse prevention. Report prepared for The Center for Substance Abuse Prevention. Washington, DC: Center for Youth Development and Policy Research.
- Pittman, K. J. & Wright, M. (1991). Bridging the gap: A rationale for enhancing the role of community organizations promoting youth development. Report prepared for The Task Force on Youth Development and Community Programs at the Carnegie Council on Adolescent Development. Washington, DC: Center for Youth Development and Policy Research.
- Plummer, D. L. (1995). Patterns of racial identity development of African American adolescent males and females. Journal of Black Psychology, 21(2), 168-180.
- Pollard, J., Catalano, R. F., Hawkins, J. D. & Arthur, M. W. (1997). Development of a school-based survey measuring risk and protective factors predictive of substance abuse, delinquency, and other problem behaviors in adolescent populations. Manuscript under review.
- Pollard, J., Hawkins, J. D. & Arthur, M. W. (1998). Risk and protection: Are both necessary to understand diverse behavioral outcomes in adolescence? Manuscript submitted for publication.
- Postrado, L. T. & Nicholson, H. J. (1990). Girls Incorporated's evaluation of a comprehensive approach to preventing adolescent pregnancy. Paper presented at the American Evaluation Association Conference, Washington, D.C.
- Prothrow-Stith, D. (1991). Deadly consequences. New York : Harper Collins.
- Prothrow-Stith, D., Spivak, H. & Hausman, A.J. (1987). The Violence Prevention Project: A public health approach. Science, Technology, and Human Values, 12, 67-69.
- Public/Private Ventures (1996). Public/Private Ventures News, 11(1). Philadelphia, PA: Author.

- Public/Private Ventures. (1996). Executive Summary: Making a Difference: An Impact Study of Big Brothers/Big Sisters. Philadelphia: [<http://epn.org/ppv/ppbbbs.html>].
- Quint, J. (1991). Project Redirection: Making and measuring a difference. Evaluation and Program Planning, 14, 75-86.
- Ramirez, S. & Dewar, T. (1997). El Puente Academy for Peace and Justice: A case study of building social capital. Rainbow Research, Inc.
- Resnicow, K., Cohn, L., Reinhardt, J., Cross, D., Futterman, R., Kirschner, E., Wynder, E. L. & Allegrante, J. P. (1992). A three-year evaluation of the Know Your Body Program in inner-city schoolchildren. Health Education Quarterly, 19(4), 463-480
- Resnicow, K., Cross, D., Lacosse, J. & Nichols, P. (1993) Evaluation of a school-site cardiovascular risk factor screening intervention. Preventive Medicine, 22(6), 838-856.
- Resnicow, K., Orlandi, M. A., Vaccaro, D. & Wynder, E. (1989). Implementation of a pilot school-site cholesterol reduction intervention. Journal of School Health, 59(2): 74-78.
- Richards-Colocino, N., McKenzie, P. & Newton, R. R. (1996). Project Success: Comprehensive intervention services for middle school high-risk youth. Journal of Adolescent Research, 11(1), 130-163.
- Robins, L. N. (1980). The natural history of drug abuse. Acta Psychiatrica Scandinavica, 62(Suppl. 284), 7-20.
- Rosenstock, I. M., Strecher, V. J. & Becker, M. H. (1988). Social learning theory and the Health Belief Model. Health Education Quarterly, 15(2), 175-183.
- Ross, J. G., Saavedra, P. J., Shur, G. H., Winters, F. & Felner, R. D. (1992). The effectiveness of an after-school program for primary grade latchkey students on precursors of substance abuse. Journal of Community Psychology, OSAP Special Issue, 22-38.
- Rossman, S. B., and Morley, E. (1995, April). The national evaluation of Cities In Schools: Executive summary. Washington, D.C.: The Urban Institute.
- Roth, J., Brooks-Gunn, J., Galen, B., Murray, L., Silverman, P., Liu, H., Man D. & Foster, W. (1997). Promoting Healthy Adolescence: Youth Development Frameworks and Programs. Report to the Robert Wood Johnson Foundation.
- Rutter, M. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorder. British Journal of Psychiatry, 147, 598-611.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. American Journal of Orthopsychiatry, 57(3), 316-331.
- Rutter, M. (1987). Temperament, personality, and personality disorder. British Journal of Psychiatry, 150, 443-458.
- Rutter, M. (1993). Resilience: Some conceptual considerations. Journal of Adolescent Health, 14(8), 626-631.
- Salovey, P. & Mayer, J. D. (1990). Emotional Intelligence. Imagination, Cognition and Personality, 9, 185-211.
- Sameroff, A. J. (1990). Prevention of developmental psychopathology using the transactional model: Perspectives on host, risk agent, and environment interactions. Presented at the Conference on the Present Status and Future Needs of Research on Prevention of Mental Disorders, Washington, D.C.

- Sameroff, A. J. & Seifer, R. (1990) Early contributors to developmental risk. In J. Rolf, A.S. Masten, D. Cicchetti, K.H. Nuechterlein & S. Weintraub (Eds.), Risk and protective factors in the development of psychopathology (pp. 52-66). New York: Cambridge University Press.
- Sands, D. J. & Doll, B. (1996). Fostering self-determination is a developmental task. Journal of Special Education, 30,(1), 58-76.
- Scheier, L.M., Botvin, G.J., Diaz, T. & Ifill-Williams, M. (1997). Ethnic identity as a moderator of psychosocial risk and adolescent alcohol and marijuana use: concurrent and longitudinal analyses. Journal of child and adolescent substance abuse, 6(1), 5-20.
- Schinke, S. P., Botvin, G. J., Trimble, J. E., Orlandi, M. A., Gilchrist, L. D. & Locklear, V. S. (1988). Preventing substance abuse among American-Indian adolescents: A bicultural competence skills approach. Journal of Counseling Psychology, 35(1), 87-90.
- Schinke, S. P., Cole, K. C. & Orlandi, M. A. (1991). The effects of Boys and Girls Clubs on alcohol and other drug use and related problems in public housing: Final research report. Rockville, MD: Office of Substance Abuse Prevention.
- Schinke, S., Jansen, M., Kennedy, E. & Shi, Q. (1994). Reducing risk-taking behavior among vulnerable youth: An intervention outcome study. Family Community Health, 16(4), 49-56.
- Schinke, S. P., Orlandi, M. A. & Cole, K. C. (1992). Boys and Girls Clubs in public housing developments: Prevention services for youth at risk. Journal of Community Psychology, OSAP Special Issue.
- Seitz, V., Rosenbaum, L. K. & Apfel, N. H. (1985). Effects of family support intervention: A ten-year follow-up. Child Development, 56, 376-391.
- Selnow, G. W. (1987). Parent-child relationships and single- and two-parent families: Implications for substance usage. Journal of Drug Education, 17, 315-326.
- Shapiro, J. Z., Gaston, S. N., Hebert, J. C. & Guillot, D. J. (1986). LSYOU (Louisiana State Youth Opportunities Unlimited) project evaluation. Baton Rouge, LA: Louisiana State University, College of Education.
- Shope, J. T., Dielman, T. E., Butchart, A. T., Campanelli, P. C. & Kloska, D. D. (1992). An elementary school-based Alcohol Misuse Prevention program: A follow-up evaluation. Journal of Studies on Alcohol, 53(2), 106-121.
- Shope, J. T., Kloska, D. D., Dielman, T. E. & Maharg, R. (1994). Longitudinal evaluation of an enhanced Alcohol Misuse Prevention Study (AMPS) curriculum for grades six-eight. Journal of School Health, 64(4), 160-166.
- Slavin, R. E. (1991). Synthesis of research on cooperative learning. Educational Leadership, 48(5), 71-82.
- Slavin, R. E., Madden, N. A., Dolan, L. J., Wasik, B. A., Ross, S. & Smith, L. (1994). Whenever and Wherever We Choose: The replication of Success for All. Phi Delta Kappa, pp. 639-647.
- Slavin, R. E., Madden, N. A., Dolan, L. J., Wasik, B. A., Ross, S., Smith, L. & Dianda, M. (1996). Success for All: A summary of research. Journal of Education for Students Placed At Risk, 1(1), 41-76.
- Smith, D. W., Redican, K. J. & Olsen, L. K. (1992). The longevity of growing healthy: An analysis of the eight original sites implementing the School Health Curriculum Project. Journal of School Health, 62(3), 83-87.

- Snyder, J. & Zoann, K. (1994). Self-determination in American Indian education: Educator's perspectives on grant, contract, and BIA-administered schools. Journal of American Indian Education, 34(1), 20-34.
- Snow, W. H., Gilchrist, L. D. & Schinke, S. P. (1985). A critique of progress in adolescent smoking prevention. Child & Youth Services, 7(1), 1-19.
- Spencer, J.B. (1990). Development of minority children. An introduction. Child Development, 61(2), 270-289.
- Spencer, J.B. & Markstrom-Adams, C. (1990). Identity processes among racial and ethnic minority children in America. Child Development, 61(2), 29--310.
- Spivack, G. & Shure, M. B. (1982). The cognition of social adjustment: Interpersonal cognitive problem-solving thinking. In B. B. Lahey & A. E. Kazdin (Eds.) Advances in clinical child psychology (Vol. 5, pp. 323-372). New York: Plenum Press.
- Sroufe, L. A. & Rutter, M. (1984). The domain of developmental psychopathology. Child Development, 55(1), 17-29.
- Stark, R. & Bainbridge, W. S. (1997). Religion, Deviance, and Social Control. New York: Routledge, Inc..
- Strader, T., Collins, D., Noe, T. & Johnson, K. (1997). Mobilizing church communities for alcohol and other drug abuse prevention through the use of volunteer church advocate teams. The Journal of Volunteer Administration, 15(2), 16-29.
- Swisher, K. G. (1996). Why Indian people should be the ones to write about Indian education. American Indian Quarterly, 20(1), 83-90.
- Swisher, J. D., Doeblen, M. K., Babbitt, M. E. & Walton, H. E. (1991). Review of research and conceptual critique of Here's Looking at You, 2000. Pennsylvania State University.
- The Urban Institute. (1994). Cities in Schools: Preventing school dropouts. Policy and Research Report.
- Thomas, B., Mitchell, A., Devlin, M., Goldsmith, C., Singer, J. & Watters, D. (1992). Small group sex education at school: The McMaster teen program. In B. Miller, J. Card, R. Paikoff & J. Peterson (Eds.), Preventing adolescent pregnancy (pp. 28-52). Newbury Park, CA : Sage Publications.
- Thornberry, T. P., Huizinga, D. & Loeber, R. (1995). The prevention of serious delinquency and violence: Implications from the program of research on the causes and correlates of delinquency. In J.C. Howell, B. Krisberg, J.D. Hawkins & J.J. Wilson (Eds.), A sourcebook: Serious, violent, and chronic juvenile offenders, (pp. 213-237). Thousand Oaks, CA: Sage Publications, Inc.
- Tierney, J. P., Grossman, J. B., with Resch, N. L. (1995). Making a Difference: An Impact Study of Big Brothers/Big Sisters. Philadelphia, PA: Public/Private Ventures.
- Tolan, P.H., Guerra, N.G., Henry, D., Huesmann, L.R., VanAcker, R. & Eron, L. (1998). Proximal effects of the metropolitan area child study. Presentation to the American Psychological Association Annual Meeting. San Francisco, CA: August 15, 1998.
- Tolan, P.H. & McKay, M.M. (1996). Preventing serious antisocial behavior in inner-city children: An empirically-based family intervention program. Family Relations, 45, 148-155.

- Tolan, P. H. & Guerra, N. G. (1994). What works in reducing adolescent violence: An empirical review of the field. Report by the Center for the Study and Prevention of Violence, Institute for Behavioral Sciences.
- Tzuriel, D. & Klein, M. M. (1977). Ego identity: Effects of ethnocentrism, ethnic identification, and cognitive complexity in Israeli Oriental and Western ethnic groups. Psychological Reports, 40(3, Pt 2) 1099-1110.
- U.S. Department of Health and Human Services (1996). Reconnecting Youth & Community. A Youth Development Approach. Silver Spring, MD: National Clearinghouse on Families and Youth.
- U.S. Department of Education (1996). The evaluative report of descriptive district & site data of Florida full service schools, 1993-94. Part of the 1993-94 Evaluation. University of South Florida College of Education Institute for At-Risk Infants, Children & Youth, and their Families.
- Veale, J. R. & Morley, R. E. (1996). School-Based Youth Services Program: Year-end report for 1994-95. Iowa Department of Education.
- W. T. Grant Consortium on the School-Based Promotion of Social Competence. (1992). Drug and alcohol prevention curricula. In J.D. Hawkins, R.F. Catalano & Associates (Eds.), Communities That Care (pp. 129-148). San Francisco: Jossey-Bass Publishers.
- Walker, G. & Vilella-Velez, F. (1992). Anatomy of a demonstration: The Summer Training and Education Program (STEP) from pilot through replication and postprogram impacts. Philadelphia, PA: Public/Private Ventures.
- Walter, H. J., Vaughan, R. D. & Wynder, E. L. (1989). Primary prevention of cancer among children: Changes in cigarette smoking and diet after six years of intervention. Journal of the National Cancer Institute, 81(13), 995-999.
- Waterman, A. S. (1985). Identity in the context of adolescent psychology. In A. S. Waterman, (Ed.), Identity in adolescence: Processes and contents. San Francisco: Jossey-Bass.
- Weeks, K., Levy, S. R., Zhu, C., Perhats, C, Handler, A. & Flay, B. R. (1995). Impact of a school-based AIDS prevention program on young adolescents' self-efficacy skills. Health Education Research, 10(3), 329-344.
- Wehmeyer, M. L. (1996). Student self-report measure of self-determination for students with cognitive disabilities. Education and Training in Mental Retardation and Developmental Disabilities, 31(4), 282-293.
- Weissberg, R. P. & Caplan, M. (1998). Promoting social competence and preventing antisocial behavior in young urban adolescents. Manuscript submitted for publication.
- Weissberg, R. P., Caplan, M. Z. & Bennetto, L. (1988). The Yale-New Haven Social Problem-Solving (SPS) Program for Young Adolescents. New Haven, CT: Yale University.
- Weissberg, R. P., Caplan, M. & Harwood, R. L. (1991). Promoting competent young people in competence-enhancing environments: A systems-based perspective on primary prevention. Journal of Consulting and Clinical Psychology, 59(6), 830-841.

- Weissberg, R. P., Caplan, M. Z. & Sivo, P. J. (1989). A new conceptual framework for establishing school-based social competence promotion programs. In L.A. Bond & B.E. Compas (Eds.), Primary prevention and promotion in the schools (pp. 177-200). Newbury Park, CA: Sage.
- Weissberg, R. P. & Greenberg, M. T. (1997). School and community competence-enhancement and prevention programs. In W. Damon (Series Ed.), I.E. Sigel and K.A. Renninger (Vol. Eds.), Handbook of child psychology: Vol 5. Child psychology in practice (5th ed.). New York: John Wiley & Sons.
- Werner, E. E. (1989). High-risk children in young adulthood: A longitudinal study from birth to 32 years. American Journal of Orthopsychiatry, 59(1), 72-81.
- Werner, E. E. (1995). Resilience in development. Current Directions in Psychological Science, 4(3), 81-85.
- Werner, E. E. & Smith, R. S. (1982). Vulnerable but invincible: A longitudinal study of resilient children and youth. New York: McGraw-Hill.
- Wilson, J. Q. (1990). Drugs and crime. In M. Tonry and J. Q. Wilson (Eds.), Crime and Justice: A Review of Research: Vol. 13. Drugs and Crime (pp. 521-45). Chicago: University of Chicago Press.
- Winters, K.C. & Henly, G.A. (1989). Personal Experience Inventory. Los Angeles: Western Psychological Services.
- Wyman, P. A., Cowen, E. L., Work, W. C. & Kerley, J. H. (1993). The role of children's future expectations in self-esteem functioning and adjustment to life stress: A prospective study of urban at-risk children. Special Issue: Milestones in the development of resilience. Development & Psychopathology, 5(4), 649-661.
- Yoshikawa, H. (1994). Prevention as cumulative protection: Effects of early family support and education on chronic delinquency and its risks. Psychological Bulletin, 115, 28-54.
- Yoshikawa, H. (1995). Long-term effects of early childhood programs on social outcomes and delinquency. The Future of Children, 5(3), 51-75. Los Altos, CA: David & Lucille Packard Foundation.
- Zabin, L. S., Hardy, J. B., Smith, E. A. & Hirsch, M. B. (1986). Substance use and its relation to sexual activity among inner-city adolescents. Journal of Adolescent Health Care, 7, 320-331.
- Zabin, L. S., Hirsch, M. B., Smith, E. A., Streett, R. & Hardy, J. B. (1986). Evaluation of a pregnancy prevention program for urban teenagers. Family Planning Perspectives, 18(3), 119-126.
- Zabin, L. S., Hirsch, M. B., Streett, R., Emerson, M. R., Smith, M., Hardy, J. B. & King, T. M. (1988). The Baltimore Pregnancy Prevention Program for urban teenagers. Family Planning Perspectives, 20(4), 182-187.
- Zigler, E. & Berman, W. (1983). Discerning the future of early childhood intervention. American Psychologist, 38, 894-906.
- Zigler, E. F., Finn, S. M. & Stern, B. M. (1997). Supporting children and families in the schools: The School of the 21st century. American Journal of Orthopsychiatry, 67(3), 396-407.
- Zimmerman, J. D. (1996). A prosocial media strategy: Youth Against Violence: Choose to De-Fuse. American Journal of Orthopsychiatry, 66(3), 354-362.

REFERENCES

- Aber, J.L., Jones, S.M., Brown, J.L., Chaudry, N. & Samples, F. (1998). Resolving conflict creatively: Evaluating the developmental effects of a school-based violence prevention program in neighborhood and classroom context. Development & Psychopathology, 10(2), 187-213.
- Agee, V. L. (1979). Treatment of the violent incorrigible adolescent. Lexington, MA : Lexington Books.
- Ainsworth, M. D. (1969). Object relations, dependency, and attachment: A theoretical review of the infant-mother relationship. Child Development, 40(4), 969-1025.
- Ainsworth, M. D. (1985). Patterns of Attachment. American Psychologist, 38(2), 27-29.
- Ainsworth, M.D., Behar, M.C., Water, E. & Wall, S. (1978). Patterns of attachment: A psychological study of the strange situation. Hillsdale, NJ: Lawrence Erlbaum.
- Ajzen, I. & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.
- Akers, R.L. (1977) Deviant behavior: A social learning approach (2nd ed.). Belmont, CA: Wadsworth Press.
- Akers, R. L., Krohn, M. D., Lanza-Kaduce, L. & Radosevich, M. (1979). Social learning and deviant behavior: A specific test of a general theory. American Sociological Review, 44, 636-655.
- Allen, J. P., Kuperminc, G., Philliber, S. & Herre, K. (1994). Programmatic prevention of adolescent problem behaviors: The role of autonomy, relatedness, and volunteer service in the Teen Outreach Program. American Journal of Community Psychology, 22(5), 617-638.
- Allen, J. P., Philliber, S., Herrling, S. & Kuperminc, G. (1997). Preventing teen pregnancy and academic failure: Experimental evaluation of a developmentally-based approach. Child Development, 68(4), 729-742.
- Allen, J. P., Philliber, S. & Hoggson, N. (1990). School-based prevention of teen-age pregnancy and school dropout: Process evaluation of the national replication of the Teen Outreach Program. American Journal of Community Psychology, 18(4), 505-524.
- Andrews, D. W., Soberman, L. H. & Dishion, T. J. (1995). The Adolescent Transitions program for high-risk teens and their parents: Toward a school-based intervention. Education and Treatment of Children, 18(4), 478-498.
- Annie E. Casey Foundation. (1995). The path of most resistance: Reflections on lessons learned from new futures. Baltimore, MD.: Author.
- Bachman, J. G., Johnston, L. D. & O'Malley, P. M. (1981). Smoking, drinking, and drug use among American high school students: Correlates and trends, 1975-1979. American Journal of Public Health, 71, 59-69.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1973). Aggression: A social learning analysis. Englewood Cliffs, NJ: Prentice-Hall.

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.
- Bandura, A. (1989). Human agency in social cognitive theory. American Psychologist, 44(9), 1175-1184.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. Educational Psychologist, 28, 117-148.
- Barone, C., Weissberg, R. P., Kaspro, W. J., Voyce, C., Arthur, M. W. & Shriver, T. P. (1995). Involvement in multiple problem behaviors of young, urban adolescents. Journal of Primary Prevention, 15(3), 261-283.
- Battistich, V., Schaps, E., Watson, M. & Solomon, D. (1996). Prevention effects of the Child Development Project: Early findings from an ongoing multisite demonstration trial. Journal of Adolescent Research, 11(1), 12-35.
- Battistich, V., Solomon, D., Watson, M., Solomon, J. & Schaps, E. (1989). Effects of an elementary school program to enhance prosocial behavior on children's cognitive-social problem-solving skills and strategies. Journal of Applied Developmental Psychology, 10, 147-169.
- Becker, B. J. & Hedges, L. V. (1992). A review of the literature on the effectiveness of Comer's School Development Program. New York: The Rockefeller Foundation.
- Bell, R.M., Ellickson, P.L. & Harrison, E.R. (1993). Do drug prevention effects persist into high school? How Project ALERT did with ninth graders. Preventive Medicine, 22, 463-483.
- Bell, R. Q. (1986). Age-specific manifestations in changing psychosocial risk. In D.C. Farran & J. D. McKinney (Eds.), The concept of risk in intellectual and psychosocial development. New York: Academic Press.
- Belsky, J. (1993). Etiology of child maltreatment. A developmental-ecological analysis. Psychological Bulletin, 114, 413-434.
- Bensman, D. (1994). Direct assessment of a progressive public elementary school: Graduates of Central Park East. New York: Andrew W. Mellon Foundation, EXXON Corporation.
- Benson, P. L. (1990). Help-seeking for alcohol and drug problems: To whom do adolescents turn? Journal of Adolescent Chemical Dependency, 1(1), 83-94.
- Benson, P. L. (1992). Religion and substance abuse. In J. F. Schumaker, et. al. (Eds.), Religion and Mental Health, (pp. 211-220). New York: Oxford University Press.
- Benson, P. L., Donahue, M. J. & Erickson, J. A. (1990). Adolescence and religion: A review of the literature for 1970 to 1986. In L. L. Monty, & D. O. Moberg, et al., (Eds.), Research in the social scientific study of religion: A research annual, Vol. 1, (pp. 153-181). Greenwich, CT: Jai Press, Inc.
- Berube, M. S., et al. (Eds.) (1995). Webster's II New College Dictionary. New York: Houghton Mifflin.
- Berrueta-Clement, J. R., Schweinhart, L. J., Barnett, W. S., Epstein, A. S. & Weikart, D. P. (1984). Changed lives: The effects of the Perry Preschool Program on youths through age 19 (High/Scope Educational Research Foundation, Monograph 8). Ypsilanti, MI: High/Scope Press.

- Biglan, A. & Ary, D. V. (1985). Methodological issues in research on smoking prevention. National Institute on Drug Abuse: Research Monograph Series, 63, 170-195.
- Biglan, A., Glasgow, R. E., Ary, D. & Thompson, R. (1987). How generalizable are the effects of smoking prevention programs? Refusal skills training and parent messages in a teacher-administered program. Journal of Behavioral Medicine, 10(6), 613-628.
- Blechman, E. A., Kotanchik, N. L. & Taylor, C. J. (1981). Families and schools together: Early behavioral intervention with high risk children. Behavior Therapy, 12, 308-319.
- Blechman, E. A., Prinz, R. J. & Dumas, J. E. (1995). Coping, competence, and aggression prevention: Part 1. Development model. Applied & Preventive Psychology, 4, 211-232.
- Bond, L. A. & Compas, B. E. (Eds.) (1989). Primary prevention and promotion in the schools. Newbury Park, CA: Sage.
- Boston Compact Measurement Committee. (1995). Boston Compact III: Year One Implementation and Measurement. Unpublished report: Author.
- Botvin, G. J. (1983). Prevention of adolescent substance abuse through the development of personal and social competence. National Institute on Drug Abuse: Research Monograph Series, 47, 115-140.
- Botvin, G. J., Baker, E., Dusenbury, L., Botvin, E.M. & Diaz, T. (1995). Long-term follow-up results of a randomized drug abuse prevention trial in a white middle-class population. Journal of the American Medical Association, 273, 1106-1112.
- Botvin, G. J., Baker, E., Dusenbury, L., Tortu, S. & Botvin, E. M. (1990). Preventing adolescent drug abuse through a multimodal cognitive-behavioral approach: Results of a 3-year study. Journal of Consulting and Clinical Psychology, 58(4), 437-446.
- Botvin, G. J., Baker, E., Filazzola, A. D. & Botvin, E. M. (1990). A cognitive-behavioral approach to substance abuse prevention: One-year follow-up. Addictive Behaviors, 15, 47-63.
- Botvin, G. J., Baker, E., Renick, N. L., Filazzola, A. D. & Botvin, E. M. (1984). A cognitive-behavioral approach to substance abuse prevention. Addictive Behaviors, 9, 137-147.
- Botvin, G. J., Dusenbury, L., Baker, E., James-Ortiz, S. & Kerner, J. (1989). A skills training approach to smoking prevention among Hispanic youth. Journal of Behavioral Medicine, 12(3), 279-296.
- Botvin, G. J., Schinke, S. P., Epstein, J. A. & Diaz, T. (1994). Effectiveness of culturally focused and generic skills training approaches to alcohol and drug abuse prevention among minority youths. Psychology of Addictive Behaviors, 8(2), 116-127.
- Bowlby, J. (1969). Attachment and loss: Vol. 1. Attachment. New York: Basic Books.
- Bowlby, J. (1973). Attachment and loss: Vol. 2. Separation-anxiety and anger. New York: Basic Books.
- Bowlby, J. (1979). On knowing what you are not supposed to know and feeling what you are not supposed to feel. Canadian Journal of Psychiatry, 24(5), 403-408.
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. American Journal of Orthopsychiatry, 52(4), 664-678.

- Boykin A.W. & Toms, F. (1985). Black child socialization: A conceptual framework. In H. McAdoo & J. McAdoo (Eds.), Black children: Social, educational, and parental environments. Newbury Park, CA: Sage.
- Braucht, G. N., Kirby, M. W. & Berry, G. J. (1978). Psychosocial correlates of empirical types of multiple drug abusers. Journal of Consulting and Clinical Psychology, 46, 1463-1475.
- Bretherton, I., Bates, E., Benigni, L., Camaioni, L. & Volterra, V. (1979). Relationships between cognition, communication and quality of attachment. In E. Bates (Ed.), The emergence of symbols: Cognition and communication in infancy. New York: Academic Press.
- Brewer, D. D., Hawkins, J. D., Catalano, R. F. & Neckerman, H.J. (1995). Preventing serious, violent, and chronic juvenile offending: A review of selected strategies in childhood, adolescence, and the community. In J. C. Howell, B. Krisberg, J. D. Hawkins, & J. J. Wilson (Eds.), A sourcebook: Serious, violent, and chronic juvenile offenders (pp. 61-141). Thousand Oaks, CA: Sage Publications, Inc.
- Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA : Harvard University Press.
- Bronfenbrenner, U. (1995). Developmental ecology through space and time. A future perspective. In P. Moen, G. H. Elder, Jr. & K. Luscher (Eds.) Examining lives in context, (pp. 619-647). Washington, DC: American Psychological Association.
- Brook, J. S., Brook, D. W., Gordon, A. S., Whiteman, M. & Cohen, P. (1990). The psychosocial etiology of adolescent drug use: A family interactional approach. Genetic, Social, and General Psychology Monographs, 116(2).
- Brook, J. S., Lukoff, I. F. & Whiteman, M. (1980). Initiation into adolescent marijuana use. Journal of Genetic Psychology, 137, 133-142.
- Brophy, J. (1986). Teacher influences on student achievement. Special Issue: Psychological science and education. American Psychologist, 41(10), 1069-1077.
- Brophy, J. (1988). Research linking teacher behavior to student achievement: Potential implications for instruction of Chapter 1 students. Educational Psychologist, 23(3), 235-286.
- Brophy, J. & Good, T.L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), Handbook of research on training (3rd ed., pp. 328-375). New York: Macmillan.
- Brotherson, M. J., Cook, C. C., Cunconan, L. R. & Wehmeyer, M. L. (1995). Policy supporting self-determination in the environments of children with disabilities. Education and Training in Mental Retardation and Developmental Disabilities, 30(1), 3-14.
- Bry, B. H., McKeon, P. & Pandina, R. J. (1982). Extent of drug use as a function of number of risk factors. Journal of Abnormal Psychology, 91, 273-279.
- Cahill, M. (1995). A concept paper to guide evaluation of the New York City Department of Youth Services Beacons Institute. New York: Author.
- Caplan, M., Bennetto, L. & Weissberg, R.P. (1991). The role of interpersonal context in the assessment of social problem-solving skills. Journal of Applied Developmental Psychology, 12(1), 103-114.
- Caplan, M. Z., Weissberg, R. P., Grober, J. S., Sivo, P. J., Grady, K. & Jacoby, C. (1992). Social competence promotion with inner-city and suburban Young Adolescents: Effects on social adjustment and alcohol use, Journal of Consulting and Clinical Psychology, 60, 56-63.

- Cardenas, J. A., Montecel, M. R., Supik, J. D. & Harris, R. J. (1992). The Coca-Cola Valued Youth Program. Dropout prevention strategies for at-risk students. Texas Researcher, 3, 111-130.
- Carnegie Council on Adolescent Development. (1992). A matter of time. Risk and opportunity in the nonschool hours. Report of the Task Force on Youth Development and Community Programs. New York: Carnegie Corporation of New York.
- Carnegie Council on Adolescent Development. (1995). Great transitions. Preparing adolescents for a new century. Concluding report of the Carnegie Council on Adolescent Development. New York: Carnegie Corporation of New York.
- Carrera, M. A. (1995). Preventing adolescent pregnancy: In hot pursuit. SIECUS Report, 23(6), 16-20.
- Carrera, M. A. (1994). Carrera/Dempsey replication programs: 1993-94 Summary of client characteristics and outcomes. Accord, NY: Philliber Associates.
- Catalano, R. F. & Hawkins, J. D. (1996). The social development model: A theory of antisocial behavior. In J. D. Hawkins (Ed.), Delinquency and crime: Current theories (pp. 149-197). New York: Cambridge University Press.
- Center for Research on the Education of Disadvantaged Students (CDS). (1997, April 17). Project #7111: Success for All. [On-line].
- Chaiken, M., R., Maltz, M. D. & Smith, C. (1989). Evaluation of Girls Clubs of America's Friendly PEERsuasion Program. Unpublished final report. Indianapolis, IN: Girls Clubs of America.
- Cicchetti, D. (1984). The emergence of developmental psychopathology. Child Development, 55, 1-7.
- Cicchetti, D. & Cohen, D. J. (1995). Developmental psychopathology: Vol. 2, Risk disorder and adaptation. New York: Wiley.
- Clarke, R. V. G. & Cornish, D. B. (1978). The effectiveness of residential treatment for delinquents. In L. A. Hersov, M. Berger & D. Shaffer (Eds.), Aggression and antisocial behavior in childhood and adolescence (pp. 143-159). Oxford : Pergamon Press.
- Cohen, D. L. (1995). A lesson in caring. Education Week, 41-44.
- Coie, J. D., Watt, N. F., West, S. G., Hawkins, J. D., Asarnow, J. R., Markman, H. J., Ramey, S.L., Shure, M. B. & Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. American Psychologist, 48, 1013-1022.
- Conduct Problems Prevention Research Group. (1997). Prevention of antisocial behavior: Initial findings from the Fast Track Project. Presented at the Society for Research in Child Development Biennial Meeting, Washington, DC.
- Conduct Problems Prevention Research Group. (1997). Testing developmental theory of antisocial behavior with outcomes from the Fast Track Project. Presented at the Society for Research in Child Development Biennial Meeting, Washington, DC.
- Connell, D. B. & Turner, R. R. (1985). The impact of instructional experience and the effects of cumulative instruction. Journal of School Health, 55(8), 324-331.

- Connell, D. B., Turner, R. R. & Mason, E. F. (1985). Summary of findings of the School Health Education Evaluation: Health promotion effectiveness, implementation, and costs. Journal of School Health, 55(8), 316-321.
- Consortium on the School-Based Promotion of Social Competence. (1994). The school-based promotion of social competence: Theory, research, practice, and policy. In R. J. Haggerty, L. R. Sherrod, N. Garnezy & M. Rutter (Eds.), Stress, risk, and resilience in children and adolescents: Processes, mechanisms, and interventions (pp. 268-316). New York: Cambridge University Press.
- Cooper, J. R., Altman, F., Brown, B. S. & Czechowicz, D. (1983). Research on the treatment of narcotic addiction: State of the art. Rockville, MD : U.S. Department of Health and Human Services, Treatment Research Monograph Series.
- Corson, W., Dynarski, M., Haimson, J. & Rosenberg. (1996). A positive force: The first two years of youth fair chance. Princeton, N.J.: Mathematica Policy Research.
- Council on Prevention and Education: Substances, Inc. (COPES). (1995). Creating Lasting Connections: Final report. Unpublished report. Louisville: COPES, Inc.
- Cowen, E. L., Wyman, P. A., Work, W. C. & Iker, M. R. (1995). A preventive intervention for enhancing resilience among highly stressed urban children. The Journal of Primary Prevention, 15(3), 247-260.
- Darling, N. & Steinberg, L. (1993). Parenting style as context: An integrative model. Psychological Bulletin, 113(3), 487-496.
- Davis, L. & Tolan, P. H. (1993). Alternative and preventive interventions. In P.H. Tolan, & Cohler, B. J. (Eds.), Handbook of clinical research and practice with adolescents. Wiley Series on personality processes, (pp. 427-451). New York: Wiley.
- Deci, E.L. & Ryan, R.M. (1994). Promoting self-determined education. Scandinavian Journal of Educational Research, 38(1), 3-14.
- De Leon, G. & Ziegenfuss, J. T. (Eds.) (1986). Therapeutic Communities for Addictions. Springfield, IL : Charles C. Thomas.
- Deyhle, D. (1995). Navajo youth and anglo racism. Harvard Educational Review, 65(3), 403-444.
- Dielman, T. E., Kloska, D. D., Leech, S. T., Schulenberg, J. E. & Shope, J. T. (1992). Susceptibility to peer pressure as an explanatory variable for the differential effectiveness of an Alcohol Misuse Prevention program in elementary schools. Journal of School Health, 62(6), 233-237.
- Dielman, T. E., Shope, J. T., Leech, S. L. & Butchart, A. T. (1989). Differential effectiveness of an elementary school-based Alcohol Misuse Prevention program. Journal of School Health, 59(6), 255-263.
- Dodge, K. A., Pettit, G. S., McClaskey, C. L. & Brown, M. M. (1986). Social competence in children. Monographs of the Society for Research in Child Development, 51,(2) (Serial No. 213).
- Dolan, L., Kellam, S. & Brown, C. H. (1989). Short-term impact of a mastery learning preventive intervention on early risk behaviors. Baltimore: Johns Hopkins University.
- Donahue, M. J. & Benson, P. L. (1995). Religion and the well-being of adolescents. Journal of Social Issues, 51(2), 145-160.

- Douvan, E. & Adelson, J. (1966). The adolescent experience. New York: Wiley.
- Dubow, E., Smith, D., McBride, J., Edwards, S., & Merk, L. (1993). Teaching children to cope with stressful experiences: Initial implementation and evaluation of a primary prevention program. Journal of Clinical Child Psychology, 22, 428-440.
- Durlak, J.A. (1980). Comparative effectiveness of behavioral and relationship group treatment in the secondary prevention of school maladjustment. American Journal of Community Psychology, 8(3), 327-339.
- Durlak, J.A., Stein, M.A. & Mannario, A.P. (1980). Behavioral validity of a brief teacher rating scale (the AML) in identifying high-risk acting-out schoolchildren. American Journal of Community Psychology, 8(1), 101-115.
- Dryfoos, J. G. (1990). Adolescents at risk: Prevalence and prevention. New York: Oxford University Press.
- Dryfoos, J. G. (1994). Full-service schools: A revolution in health and social services for children, youth, and families. San Francisco: Jossey-Bass Inc.
- Dryfoos, J. G. (1996). Adolescents-at-risk revisited: Continuity, evaluation, and replication of prevention programs. Unpublished manuscript. New York: Author.
- Dubow, E. F., Schmidt, D., McBride, J., Edwards, S. & Merk, F. L. (1993). Teaching children to cope with stressful experiences: Initial implementation and evaluation of a primary prevention program. Journal of Clinical Child Psychology, 22(4), 428-440.
- Durlak, J.A. & Wells, A.M. (1997). Primary prevention mental health programs for children and adolescents: A meta-analytic review. Special issue: Meta-analysis of primary prevention programs. American Journal of Community Psychology, 25(2), 115-152.
- Durlak, J.A. (1980). Comparative effectiveness of behavioral and relationship group treatment in the secondary prevention of school maladjustment. American Journal of Community Psychology, 8(3), 327-339.
- Duryea, E. J. (1992). Psychometric and related deficits in preventive alcohol intervention programming. Psychological Reports, 70(1), 333-334.
- Duryea, E. J., English, G. & Okwumabua, J. O. (1987). Health promotion efforts in an isolated Hispanic community: The mora substance abuse prevention project. American Journal of Health Promotion, 1(4), 16-23.
- Duryea, E. J. & Okwumabua, J. O. (1988). Effects of a preventive alcohol education program after three years. Journal of Drug Education, 18(1), 23-31.
- Dusenbury, L., Botvin, G.J. & James-Ortiz, S. (1989). The primary prevention of adolescent substance abuse through the promotion of personal and social competence. Prevention in Human Services, 7(1), 201-224.
- Dusenbury, L. (1996) Making the grade: A guide to school drug prevention programs. Washington, D.C.: Drug Strategies.
- Dusenbury, L., Falco, M. & Lake, A. (1997). A review of the evaluation of 47 drug abuse prevention curricula available nationally. Journal of School Health, 64(4), 127-132.
- Elias, M. J., Gara, M. A., Schuyler, T. F., Branden-Muller, L. R. & Sayette, M. A. (1991). The promotion of social competence: Longitudinal study of a preventive school-based program. American Journal of Orthopsychiatry, 61(3), 409-417.

- Elias, M. J., Weissberg, R. P., Hawkins, J.D., Perry, C. L., Zins, J. E., Dodge, K. A., Kendall, P. C. & Gottfredson, D. C. (1994). The school-based promotion of social competence: Theory, research, practice, and policy. In R. J. Haggerty, N. Garnezy, M. Rutter, and L. Sherrod (Eds.), Stress, risk and resilience in children and adolescence: Processes, mechanisms, and interventions (pp. 269-315). New York: Cambridge University Press.
- Ellickson, P. L. & Bell, R. M. (1990). Drug prevention in junior high: A multi-site longitudinal test. Science, 247, 1299-1305.
- Ellickson, P. L., Bell, R. M. & Harrison, E. R. (1993). Changing adolescent propensities to use drugs: Results from Project ALERT. Health Education Quarterly, 20(2), 227-242.
- Ellickson, P. L., Bell, R. M. & McGuigan, K. (1993). Preventing adolescent drug use: Long-term results of a junior high program. American Journal of Public Health, 83(6), 856-861.
- Elliott, D. S., Huizinga, D. & Ageton, S. S. (1985). Explaining delinquency and drug use. Beverly Hills: Sage.
- Elliott, D. S., Huizinga, D. & Menard, S. (1989). Multiple problem youth: Delinquency, substance use and mental health problems. New York: Springer-Verlag.
- Emshoff, J., Avery, E., Raduka, G., Anderson, D. J., & Calvert, C. (1996). Findings from SUPER STARS: A health promotion program for families to enhance multiple protective factors. Journal of Adolescent Research, 11(1), 68-96.
- Englander-Golden, P. & Satir, V. (1990). Say it straight: From compulsions to choices. Palo Alto, CA: Science & Behavior Books.
- Ennett, S. T., Tobler, N. S., Ringwalt, C. L. & Flewelling, R. L. (1994). How effective is drug abuse resistance education? A meta-analysis of Project DARE outcome evaluations. American Journal of Public Health, 84(9), 1394-1401.
- Erikson, E. H. (1950). Childhood and Society. New York: Norton.
- Erikson, E.H. (1968). Identity: Youth and crisis. New York: Norton.
- Eron, L. D., Gentry, J. H. & Schlegel, P. (Eds.). (1994). Reason to hope: A psychosocial perspective on violence and youth. Washington, DC: American Psychological Association.
- Ewalt, P.L. & Mokuau, N. (1995). Self-determination from a Pacific perspective. Social Work, 40(2), 168-175.
- Farrell, A. D. & Meyer, A. L. (1997). The effectiveness of a school-based curriculum for reducing violence among urban sixth-grade students. American Journal of Public Health, 87(6), 979-984.
- Farrell, A. D. & Meyer, A. L. (1998). Evaluation of Responding in Peaceful and Positive Ways (RIPP): A school-based prevention program for reducing violence among urban adolescents. Richmond, VA: Virginia Commonwealth University. Submitted for publication.
- Farrell, A. D. & Meyer, A. L. (1998). Social skills training to promote resilience in urban sixth-grade students: One product of an action strategy to prevent youth violence in high-risk environments. Unpublished manuscript. Richmond, VA: Virginia Commonwealth University.
- Farrell, A. D., Meyer, A. L. & Dahlberg, L. L. (1996). Richmond youth against violence: A school-based program for urban adolescents. American Journal of Preventive Medicine, 12(5 Suppl), 13-21.

- Farrell, A.D. (1998). Continuation grant program narrative: Longitudinal evaluation and extension of the RIPP program for urban youth. Richmond, VA: Author.
- Farrington, D. P. (1992). The need for longitudinal-experimental research on offending and antisocial behavior. J. McCord & R. E. Tremblay (Eds.), Preventing antisocial behavior (pp. 353-376). New York: Guilford.
- Farrington, D. P. (1996). The explanation and prevention of youthful offending. In J. D. Hawkins (Ed.), Delinquency and crime: Current theories, (pp. 68-148). New York: Cambridge University Press.
- Ferguson, R.F., Clay, P.L., Snipes, J.C. & Roaf, P. (1996). Youthbuild in developmental perspective: A formative evaluation of the YouthBuild demonstration project. U.S Department of Housing and Urban Development. John F. Kennedy School of Government, Harvard University.
- Fetterman, D. M., Kaftarian, S. J. & Wandersman, A. (Eds.). (1996). Empowerment evaluation. Knowledge and tools for self-assessment and accountability. Newbury Park, CA: Sage.
- Field, S. (1996). Self-determination instructional strategies for youth with learning disabilities. Journal of Learning Disabilities, 29(1), 40-52.
- Fishbein, M., Bandura, A., Triandis, H. C., Kanfer, F. H., Becker, M. H. & Middlestadt, S. E.. (1991). Factors influencing behavior and behavior change. Final report to the Theorist's Workshop, Washington, DC.
- Fishbein, M. & Ajzen, I. (1975). Belief, attitude, intention and behavior. Reading, MA : Addison-Wesley.
- Flay, B. R., Phil, D., Brannon, B. R., Johnson, C. A., Hansen, W. B., Ulene, A. L., Whitney-Saltiel, D. A., Gleason, L. R., Sussman, S., Gavin, M. D., Glowacz, K. M., Sobol, D. F. & Spiegel, D. C. (1988). The television, school, and family smoking prevention and cessation project. Preventive Medicine, 17, 585-607.
- Fleisher, S. J., Avelar, C., Latorre, S. E., Ramirez, J., Cubillos, S., Christiansen, H. & Blaufarb, H. (1995). Evaluation of a Judo/Community Organization Program to treat predelinquent Hispanic immigrant early adolescents. Hispanic Journal of Behavioral Sciences, 17(2), 237-248.
- Friedman, A. & Beschner, G. M. (1985). Treatment Services for Adolescent Substance Abusers. Rockville, MD : U.S. Department of Health and Human Services.
- Garbarino, J. & Abramowitz, R. (1992). Sociocultural risk and opportunity. In J. Garbarino, (Ed.), Children and families in the social environment (2nd ed. pp. 35-70). New York: Aldine De Gruyter.
- Gardner, H. (1993). Multiple intelligences: The theory in practice. New York: Basic Books.
- Gilligan, C. (1982). In a different voice. Cambridge MA: Harvard University Press.
- Gold, M. & Mann, D. W. (1984). Expelled to a friendlier place: A study of effective alternative schools. Ann Arbor, MI: University of Michigan.
- Goleman, D. (1995). Emotional intelligence: Why it can matter more than IQ. New York: Bantam Books.
- Gordon, R. (1983). An operational classification of disease prevention. Public Health Reports, 98, 107-109.

- Gordon, R. (1987). An operational classification of disease prevention. In J. A. Sternberg & M. M. Silverman (Eds.). Preventing mental disorders: A research perspective, (pp. 20-26) (DHHS Publication No. ADM 87-1492). Washington, DC: U.S. Government Printing Office.
- Gottfredson, D. C., Gottfredson, G. D. & Hybl, L. G. (1993). Managing adolescent behavior. A multiyear, multischool study. American Educational Research Journal, 30(1), 179-215.
- Gottfredson, G.D. (1988). A workbook for your school improvement program. Baltimore, Md.: Johns Hopkins University.
- Greenberg, M. T. (1998, August). Testing developmental theory of antisocial behavior with outcomes from the Fast Track Prevention Project. Paper presented in a symposium at the annual meetings of the American Psychological Association, Chicago.
- Greenberg, M. T. (1996). The PATHS Project: Preventive intervention for children: Final report to NIMH. Seattle, WA: University of Washington, Department of Psychology.
- Greenberg, M. T., Cichetti, D. & Cummings, E. M. (Eds.). (1990). Attachment in the preschool years. Chicago: University of Chicago Press.
- Greenberg, M. T. & Kusche, C. A. (1997, April). Improving children's emotion regulation and social competence: The effects of the PATHS curriculum. Paper presented at the annual meeting of the Society for Research in Child Development, Washington, D.C.
- Greenberg, M. T., Kusche, C. A., Cook, E. T. & Quamma, J. P. (1995). Promoting emotional competence in school-aged children: The effects of the PATHS Curriculum. Development in Psychopathology, 7, (pp. 117-136). Cambridge University Press.
- Greene, R. W. & Ollendick, T. H. (1993). Evaluation of a multidimensional program for sixth-graders in transition from elementary to middle school. Journal of Community Psychology, 21(2), 162-176.
- Grossman, J. B. & Sipe, C. L. (1992, Winter). Summer Training and Education Program (STEP): Report on long-term impacts. Philadelphia, PA: Public/Private Ventures.
- Grossman, B., Wirt, R. & Davids, A. (1985). Self-esteem, ethnic identity, and behavioral adjustment among Anglo and Chicano adolescents in West Texas. Journal of Adolescence, 8(1), 57-68.
- Grossman, D. C., Neckerman, H. J., Koepsell, T. D., Liu, P. Y., Asher, K. N., Beland, K., Frey, K. & Rivara, F. P. (1997). Effectiveness of a violence prevention curriculum among children in elementary school. Journal of the American Medical Association, 277(20), 1605-1611.
- Hahn, A., Leavitt, T. & Aaron, P. (1994). Evaluation of the Quantum Opportunities Program (QOP). Did the program work? A report on the post secondary outcomes and cost-effectiveness of the QOP Program (1989-1993). Waltham, MA: Brandeis University Heller Graduate School Center for Human Resources.
- Hansen, W. B., Johnson, C. A., Flay, B. R., Phil, D., Graham, J. W. & Sobel, J. (1988). Affective and social influence approaches to the prevention of multiple substance abuse among seventh grade students: Results from Project SMART. Preventive Medicine 17, 135-154.
- Harrell, A. & Adams, W. (1995). Reducing family risk of drug use and delinquency: Preliminary findings from the evaluation of the Children at Risk Program. Paper presented at the 47th Annual Meeting of the American Society of Criminology. November 16, Boston.

- Hausman, A. J., Spivak, H. & Prothrow-Stith, D. (1995). Evaluation of a community-based youth violence prevention project. Journal of Adolescent Health, 17(6), 353-359.
- Hawkins, J. D. & Catalano, R. F. (1990). Intensive family preservation services: Broadening the vision for prevention. In J. K. Whittaker, J. Kinney, E.M. Tracy & C. Booth (Eds.), Reaching high-risk families: Intensive family preservation in human services, (pp. 179-192). New York: Aldine de Gruyter.
- Hawkins, J. D., Catalano, R. F. & Associates. (1992). Communities That Care: Action for drug abuse prevention. San Francisco: Jossey-Bass.
- Hawkins, J. D., Catalano, R. F., Jones, G. & Fine, D. N. (1987). Delinquency prevention through parent training: Results and issues from work in progress. In J. Q. Wilson, & G. C. Lounsbury (Eds.), From children to citizens: Families, schools, and delinquency prevention (Vol. 3, pp. 186-204). New York: Springer-Verlag.
- Hawkins, J. D., Catalano, R. F., Kosterman, R., Abbott, R. & Hill, K. G. (1999). Preventing adolescent health-risk behaviors by strengthening protection during childhood. In press.
- Hawkins, J. D., Catalano, R. F. & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. Psychological Bulletin, 112, 64-105.
- Hawkins, J. D., Jenson, J. M., Catalano, R. F. & Lishner, D. M. (1988). Delinquency and drug abuse: Implications for social services. Social Service Review, 62, 258-284.
- Hawkins, J. D., Lishner, D. M., Catalano, R. F. & Howard, M. O. (1986). Childhood predictors of adolescent substance abuse: Toward an empirically grounded theory. Journal of Children in Contemporary Society, 18, 11-48.
- Hawkins, J. D. & Weis, J. G. (1985). The social development model: An integrated approach to delinquency prevention. Journal of Primary Prevention, 6, 73-97.
- Haynes, N. M. (Ed.) (1994). School Development Program. School Development Program Research Monograph. New Haven, CT: Yale University, Child Study Center.
- Haynes, N. M., Gebreyesus, S. & Comer, J. P. (1993). Selected case studies of national implementation of the School Development Program. [Unpublished report]. New Haven, CT: Yale Child Study Center.
- Haynes, N. M. & Comer (1993). The Yale school development program: process, outcomes, and policy implications. Urban Education, 8(2), 166-199.
- Hernandez, D.J. (1995). Changing demographics: Past and future demands for early childhood programs. The future of children, 5(3), 145-160.
- Hernandez, L. P. & Lucero, E. (1996). DAYS La Familia Community Drug and Alcohol Program: Family-centered model for working with inner-city Hispanic families. The Journal of Primary Prevention, 16(3), 255-272.
- Higgins, C., Furano, K., Toso, C. & Branch, A. Y. (1991). I Have a Dream in Washington, D.C.: Initial report. Philadelphia, PA: Public/Private Ventures.
- Hill, H., Piper, D. & Moberg, D. P. (1994). "Us planning prevention for them:" The social construction of community prevention for youth. International Quarterly of Community Health Education, 15(1), 65-89.

- Hill, H. M., Soriano, F. I., Chen, S. A. & LaFromboise, T. D. (1994). Sociological factors in the etiology and prevention of violence among ethnic minority youth. In L. D. Eron, J. H. Gentry & P. Schlegel (Eds.). Reason to hope: A psychosocial perspective on violence and youth (pp. 59-100). Washington DC : American Psychological Association.
- Hirschi, T. (1969). Causes of delinquency. Berkeley, CA: University of California Press.
- Hoffman, M. L. (1981). Is altruism part of human nature? Journal of Personality and Social Psychology, 40, 121-127.
- Holmberg, M. B. (1985). Longitudinal studies of drug abuse in a fifteen-year-old population: I. Drug career. Acta Psychiatrica Scandinavica, 71, 67-79.
- Holden, G.W., Moncher, M.S., Schinke, S.P. & Barker, K.M. (1990). Self-efficacy of children and adolescents: A meta-analysis. Psychological Reports, 66(3), 1044-1046.
- Horacek, H. J., Ramey, C. T., Campbell, F. A., Hoffmann, K. P. & Fletcher, R. H. (1987). Predicting school failure and assessing early intervention with high-risk children. Journal of the American Academy of Child and Adolescent Psychiatry, 26, 758-763.
- Howard, M. & McCabe, J. B. (1990). Helping teenagers postpone sexual involvement. Family Planning Perspectives, 22(1), 21-26.
- Howell, J. C., Krisberg, B., Hawkins, J. D. & Wilson, J. J. (Eds.). (1995). A sourcebook: Serious, violent, and chronic juvenile offenders. Thousand Oaks, CA: Sage Publications, Inc.
- Huesmann, L.R., Maxwell, C.D., Eron, L., Dahlberg, L.L., Guerra, N.G., Tolan, P.H., Van Acker, R. & Henry, D. (1996). Evaluating a cognitive/ecological program for the prevention of aggression among urban children. American Journal of Preventive Medicine, 12(5), 120-128.
- Human Organization Science Institute (1990). Final Evaluation Report. Absenteeism Prevention Program. Pennsylvania Comprehensive Drug and Alcohol Prevention/Intervention Program. Villanova, PA: Villanova University.
- Hundleby, J. D. & Mercer, G. W. (1987). Family and friends as social environments and their relationship to young adolescents' use of alcohol, tobacco, and marijuana. Journal of Marriage and the Family, 49, 151-164.
- Institute for Prevention Research. (1994, January 25). Long-term follow-up results prove drug abuse prevention works. Cornell Prevention Update [News Release], Institute for Prevention Research, Cornell University Medical College, Ithaca, NY.
- Institute of Medicine (IOM), Committee on Prevention of Mental Disorders. (1994). Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research, P. J. Mrazek & R. J. Haggerty (Eds.). Washington, DC: National Academy Press.
- Janz, N. K. & Becker, M. H. (1984). The health belief model: A decade later. Health Education Quarterly, 11, 1-47.
- Jessor, R. (1976). Predicting time of onset of marijuana use: A developmental study of high school youth. Journal of Consulting and Clinical Psychology, 44, 125-134.
- Jessor, R. (1985). Bridging etiology and prevention in drug abuse research. In C. L. Jones and R. J. Battjes (Eds.), Etiology of drug abuse: Implications for prevention (NIDA Research Monograph 56, pp. 257-268). Washington, DC: U.S. Government Printing Office.

- Jessor, R. (1992). Risk behavior in adolescence: A psychosocial framework for understanding and action. Developmental Review, 12(4), 374-390.
- Jessor, R. (1993). Successful adolescent development among youth in high-risk settings. American Psychologist, 48, 117-126.
- Jessor, R., Donovan, J. E. & Costa, F. M. (1991). Beyond adolescence: Problem behavior and young adult development. Cambridge, England: Cambridge University Press.
- Jessor, R. & Jessor, S. L. (1977). Problem behavior and psychosocial development: A longitudinal study of youth. New York: Academic Press.
- Jessor, R., VanDenBos, J., Vanderryn, J., Costa, F. M. & Turbin, M.S. (1997). Protective factors in adolescent problem behavior: Moderator effects and developmental change. Developmental Psychology, 31(6), 923-933.
- Johnson, C. A., Pentz, M. A., Weber, M. D., Dwyer, J. H., Baer, N., MacKinnon, D. P. & Hansen, W. B. (1990). Relative effectiveness of comprehensive community programming for drug abuse prevention with high-risk and low-risk adolescents. Journal of Consulting and Clinical Psychology, 58(4), 447-456.
- Johnson, K., Strader, T., Berbaum, M., Bryant, D., Bucholtz, G., Collins, D. & Noe, T. (1996). Reducing alcohol and other drug use by strengthening community, family, and youth resiliency: An evaluation of the Creating Lasting Connections Program. Journal of Adolescent Research, 11(1). 36-67.
- Johnston, L. D.; Bachman, J. G. & O'Malley, P. M. (1979). 1979 Highlights: Drugs and the nation's high school students, five year national trends. Rockville, Maryland : U.S. Department of Health, Education and Welfare, Alcohol, Drug Abuse and Mental Health Administration.
- Johnston, L. D., O'Malley, P. M. & Bachman, J. G. (1985). Drug Use, Drinking, and Smoking: National Survey Results from High School, College, and Young Adult Populations (DHHS Publication No. ADM 89-1638). Washington, DC: U.S. Government Printing Office.
- Johnston, L. D., O'Malley D. M. & Bachman, J. G. (1994). Monitoring the Future, National High School Senior Survey News Release January 31, 1994, University of Michigan Institute for Social Research.
- Johnston, M.W. & Bell, A.P. (1995). Romantic emotional attachment: Additional factors in the development of the sexual orientation of men. Journal of Counseling and Development, 73(6), 621-625.
- Jorgensen, S. R., Potts, V. & Camp, B. (1993). Project Taking Charge: Six-month follow-up of a pregnancy prevention program for early adolescents. Family Relations, 42, 401-406.
- Kandel, D. B., Kessler, R. C. & Margulies, R. (1978). Antecedents of adolescent initiation into stages of drug use: A developmental analysis. Journal of Youth & Adolescence, 7(1), 13-40.
- Kellam, S. G. & Brown H. (1982). Social adaptational and psychological antecedents of adolescent psychopathology ten years later. Baltimore: Johns Hopkins University.
- Kellam, S. G. & Rebok, G. W. (1992) Building developmental and etiological theory through epidemiologically based preventive intervention trials. In J. McCord & R.E. Tremblay (Eds.), Preventing antisocial behavior: Interventions from birth through adolescence (pp. 162-195). New York: Guilford.

- Kemple, J. J. (1997). Communities of support for students and teachers: Emerging findings from a 10-site evaluation. Manpower Demonstration Research Corporation Career Academies.
- Kim, S., McLeod, J. H. & Shantzis, C. (1989). An outcome evaluation of refusal skills program as a drug abuse prevention strategy. Journal of Drug Education, 19(4), 363-371.
- Kirby, D. (1997). No easy answers: Research findings on programs to reduce teen pregnancy. Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- Kirby, D., Barth, R. P., Leland, N. & Fetro, J. V. (1991). Reducing the Risk: Impact of a new curriculum on sexual risk-taking. Family Planning Perspectives, 23(6), 253-263.
- Kirby, D., Harvey, P. D., Claussenius, D. & Novar, M. (1989). A direct mailing to teenage males about condom use: Its impact on knowledge, attitudes and sexual behavior. Family Planning Perspectives, 21(1), 12-18.
- Kirby, D., Korpi, M., Barth, R. P. & Cagampang, H. H. (1995, September). Evaluation of Education Now and Babies Later (ENABL): Final Report. Berkeley, CA: University of California, School of Social Welfare, Family Welfare Research Group.
- Kohlberg, L. (1963). The development of children's orientations toward a moral order: I. Sequence in the development of moral thought. Vita Humana, 6, 11-33.
- Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach. In D. A. Goslin (Ed.), Handbook of socialization theory and research. Chicago: Rand McNally.
- Kohlberg, L. (1981). Essays on moral development (Vol. 1). New York: Harper and Row.
- Kornberg, M. S. & Caplan, G. (1980). Risk factors and preventive intervention in child psychotherapy: A review. Journal of Primary Prevention, 1, 71-133.
- Kreutter, K. J., Gewirtz, H., Davenney, J. E. & Love, C. (1991). Drug and alcohol prevention for sixth graders: First-year findings. Adolescence, 26(102), 287-293.
- Kusche, C.A. & Greenberg, M.T. (1994). Teaching PATHS in your classroom: The PATHS (Promoting Alternative Thinking Strategies) Curriculum Instruction Manual. Seattle: Developmental Research Programs.
- LaFromboise, T. D., Coleman, H. L. K. & Gerton, J. (1993). Psychological Impact of Biculturalism: Evidence and Theory. Psychological Bulletin, 14(3), 395-412.
- LaFromboise, T. D., Rowe, W. (1983). Skills training for bicultural competence: Rationale and application. Journal of Counseling Psychology, 30(4), 589-595.
- LaFromboise, T. D., Trimble, J. E. & Mohatt, F. V. (1990). Counseling intervention and American Indian tradition: An integrative approach. Counseling Psychologist, 18(4), 628-654.
- Levine, I. S. & Zimmerman, J. D. (1996). Using qualitative data to inform public policy: Evaluating "Choose to De-Fuse." American Journal of Orthopsychiatry, 66(3), 363-377.
- Locke, E. A., Frederick, E., Lee, C. & Bobko, P. (1984). Effect of self-efficacy, goals, and task strategies on task performance. Journal of Applied Psychology, 169, 241-251.
- Loeber, R. (1990). Development and risk factors of juvenile antisocial behavior and delinquency. Clinical Psychology Review, 10, 1-41.

- Loeber, R., Stouthamer-Loeber, M. S., Van Kammen, W. & Farrington, D. P. (1991). Initiation, escalation, and desistance in juvenile offending and their correlates. Journal of Criminal Law and Criminology, 82, 36-82.
- Longhead, T. A., Liu, S-H. & Middleton, E. B. (1995). Career development for at-risk youth: A program evaluation. The Career Development Quarterly, 43, 274-284.
- Lorion, R.P. (Ed.). (1990). Protecting the children: Strategies for optimizing emotional and behavioral development. Prevention in Human Services. New York: Haworth Press.
- LoSciuto, L., Freeman, M. A., Harrington, E., Altman, B. & Lanphear, A. (1997). An outcome evaluation of the Woodrock Youth Development Project. Journal of Early Adolescence, 17(1), 51-66.
- LoSciuto, L., Rajala, A.K., Townsend, T. N. & Taylor, A. S. (1996). An outcome evaluation of Across Ages: An intergenerational mentoring approach to drug prevention. Journal of Adolescent Research, 11(1), 116-129.
- Loughead, T. A., Liu, S. H. & Middleton, E. B. (1995). Career development for at-risk youth: A program evaluation. The Career Development Quarterly, 43(3), 274-284.
- Luthar, S. S. & Zigler, E. (1992). Intelligence and social competence among high-risk adolescents. Development and Psychopathology, 4, 287-299.
- Mahler, M. S., Pine, F. & Bergman, A. (1975). The psychological birth of the human infant. New York: Basic Books.
- Malvin, J. H., Moskowitz, J. M., Schaeffer, G. A. & Schaps, E. (1984). Teacher training in affective education for the primary prevention of adolescent drug abuse. American Journal of Drug and Alcohol Abuse, 10(2), 223-235.
- Marsh, J. C. & Wirick, M. A. (1991). Evaluation of Hull House teen pregnancy and parenting program. Evaluation and Program Planning, 14(1-2), 49-61.
- Maslin-Cole, C. & Spieker, S. J. (1990). Attachment as a basis for independent motivation. In M.T. Greenberg, D. Cicchetti & E.M. Cummings, (Eds.), Attachment in the pre-school years, (pp. 245-272). Chicago, IL: The University of Chicago Press.
- Masten, A. S., Best, K. M. & Garnezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. Development and Psychopathology, 2, 425-444.
- Mendelberg H. (1986). Identity conflict in Mexican-American adolescents. Adolescence, 21, (81), 214-24.
- Mendt, K.L. (1996). Spiritual themes in young adult books. ALAN Review, 23(3), 34-37.
- Metis Associates, Inc. (1990) The Resolving Conflict Creatively Program, 1988-1989: Summary of Significant Findings. New York: Metis Associates.
- Metropolitan Area Child Study Research Group (1997). A cognitive-ecological approach to preventing aggression in urban and inner-city settings: Preliminary Outcomes. Under review. Chicago, IL: University of Illinois at Chicago.
- Meyer, A.L. & Lausell, L. (1996). The value of including a higher power in efforts to prevent violence and promote optimal outcomes during adolescence. In R.L. Hampton & P. Jenkins (Eds.) Preventing violence in America: Issues in children's and families' lives. (Vol. 4, pp. 115-132.)

- Millsap, M. A., Gamse, B., Beckford, I., Johnston, K., Chase, A., Hailey, L., Brigham, N. & Goodson, B. (1995). The School Development Program and implementation: Preliminary evaluation evidence. Paper presented at the meeting of the American Education Research Association, San Francisco, CA.
- Mitchell, D. A., Thomas, B. H., Devlin, M. C., Goldsmith, C. H., Willan, A., Singer, J., Marks, S., Watters, D., & Hewson, S. (1997). Evaluation of an educational program to prevent adolescent pregnancy. Health Education and Behavior, 24(3), 300-312.
- Moberg, D. P. & Piper, D. L. (1995, June 16). Behavioral outcomes for the Healthy For Life Project. Presented at the 1995 meeting of the Prevention Research Society.
- Moberg, D. P., Piper, D. L., Wu, J. & Serlin, R. C. (1993). When total randomization is impossible: Nested randomized assignment. Evaluation Review, 17(3), 271-291.
- Moore, C. W. & Allen, J. P. (1996). The effects of volunteering on the young volunteer. Journal of Primary Prevention, 17(2), 231-258..
- Moore, K. A., Sugland, B. W., Blumenthal, C., Glei, D. & Snyder, N. (1995). Adolescent pregnancy prevention programs. Interventions and evaluations. Washington, DC: Child Trends.
- Morley, E. & Rossman, S. (1994). School-based intervention for at risk youth. Paper presented at the 45th annual meeting of the American Society of Criminology, Miami, FL.
- Moskowitz, J. M., Malvin, J. H., Schaeffer, G. A. & Schaps, E. (1984). An experimental evaluation of a drug education course. Journal of Drug Education, 14, 9-22.
- Morrison, D. M., Simpson, E. E., Gillmore, M. R., Wells, E. A. & Hoppe, M. J. (1994). Children's decisions about substance use: An application and extension of the theory of reasoned action. Unpublished manuscript. School of Social Work, University of Washington.
- National Center for Health Education. (1997). Growing Healthy: An examination of comprehensive school health education's role in healthy lifestyles for youth. Publication materials. Waco, TX: WRS Group.
- National Institute on Drug Abuse. (1997). Preventing drug use among children and adolescents: A research based guide. Rockville, MD:.
- National Research Council (1993). Losing Generations: Adolescents in High-Risk Settings. Panel on High-Risk Youth, National Research Council. Washington, DC: National Academy Press.
- National Research Council, Institute of Medicine (1996). Youth Development and Neighborhood Influences: Challenges and Opportunities, Summary of a workshop. Report by the Committee on Youth Development, Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. (Eds.) R. Chalk and D.A. Phillips. Washington, DC: National Academy Press.
- Neufeld, B. & LaBue, M. A. (1994). The implementation of the School Development Program in Hartford: Final evaluation report. Cambridge, MA: Education Matters, Inc.
- Newcomb, M. D., Maddahian, E. & Bentler, P. M. (1986). Risk factors for drug use among adolescents: Concurrent and longitudinal analyses. American Journal of Public Health, 76, 525-530.

- Newcomb, M. D., Maddahian, E., Skager, R. & Bentler, P. M. (1987). Substance abuse and psychosocial risk factors among teenagers: Associations with sex, age, ethnicity and type of school. American Journal of Drug and Alcohol Abuse, 13, 413-433.
- Offer, D. & Offer, J. (1975). Three developmental routes through normal male adolescence. Adolescent Psychiatry, 4, 121-141.
- Office of Juvenile Justice and Delinquency Prevention (1995). Guide for implementing the comprehensive strategy for serious, violent, and chronic juvenile offenders. Washington, DC: Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice.
- O'Donnell, J., Michalak, E. A. & Ames, E. B. (1997). Inner-city youths helping children: After-school programs to promote bonding and reduce risk. Social Work in Education, 19(4), 231-241.
- Orr, M.T., Fancsali, C. & Bolden, C. (1997) Improving chances and opportunities: The accomplishments and lessons from a national community-focused youth services initiative. Youth Fair Chance: Six years in the field. Prepared by: Academy for Educational Development.
- Parham, T. & Helms, J. (1985). Relation of racial identity attitudes to self-actualization and affective states of Black students. Journal of Counseling Psychology, 32, 431-440.
- Parker, V. C., Sussman, S., Crippens, D. L., Scholl, D. & Elder (1996). Qualitative development of smoking prevention programming for minority youth. Addictive Behaviors, 21(4), 521-525.
- Patterson, G. R., Chamberlain, P. & Reid, J. B. (1982). A comparative evaluation of a parent training program. Behavior Therapy, 13, 638-650.
- Paul, M. & Fisher, J. (1980). Correlates of self-concept among Black early adolescents. Journal of Youth and Adolescence, 9, 163-173.
- Pedro-Carroll, J. L., Alpert-Gillis, L. J. & Cowen, E. L. (1992). An evaluation of the efficacy of a preventive intervention for 4th-6th grade urban children of divorce. The Journal of Primary Prevention, 13(2), 115-130.
- Pedro-Carroll, J. L. & Cowen, E. L. (1985). The Children of Divorce Intervention Program: An investigation of the efficacy of a school-based prevention program. Journal of Consulting and Clinical Psychology, 53(5), 603-611.
- Pedro-Carroll, J. L., Cowen, E. L., Hightower, D. & Guare, J. C. (1986). Preventive intervention with latency-aged children of divorce: A replication study. American Journal of Community Psychology, 14(3), 277-289.
- Penning, M. & Barnes, G. E. (1982). Adolescent marijuana use: A review. International Journal of the Addictions, 17, 749-791.
- Pentz, M. A., Cormack, C., Flay, B., Hansen, W. B. & Johnson, C. A. (1986). Balancing program and research integrity in community drug abuse prevention: Project STAR approach. Journal of School Health, 56(9), 389-393.
- Pentz, M. A., Dwyer, J. H., Johnson, C. A., Flay, B. R., Hansen, W. B., MacKinnon, D. P., Chou, C. P., Rohrbach, L. A. & Montgomery, S. B. (1994). Long-term follow-up of a multicomunity trial for prevention of tobacco, alcohol, and drug use. Unpublished manuscript.

- Pentz, M. A., Dwyer, J. H., MacKinnon, D. P., Flay, B. R., Hansen, W. B., Wang, E. Y. I. & Johnson, C. A. (1989). A multi-community trial for primary prevention of adolescent drug abuse: Effects on drug use prevalence. Journal of the American Medical Association, 261, 3259-3266.
- Pentz, M. A., MacKinnon, D. P., Dwyer, J. H., Wang, E. Y. I., Hansen, W. B., Flay, B. R. & Johnson, C. A. (1989). Longitudinal effects of the Midwestern Prevention Project on regular and experimental smoking in adolescents. Preventive Medicine, 18, 304-321.
- Pentz, M. A., Trebow, E. A., Hansen, W. B., MacKinnon, D. P., Dwyer, J. H., Johnson, C. A., Flay, B. R., Daniels, S. & Cormack, C. (1990). Effects of program implementation on adolescent drug use behavior: The Midwestern Prevention Project (MPP). Evaluation Review, 14(3), 264-289.
- Perry, C. L. & Jessor, R. (1985). The concept of health promotion and the prevention of adolescent drug abuse. Health Education Quarterly, 12(2), 169-184.
- Perry, C. L., Kelder, S. H. & Komro, K. A. (1993). The social world of adolescents: Family, peers, schools, and the community. In S. G. Millstein, A. C. Petersen & E.O. Nightengale (Eds.) Promoting the Health of Adolescents: New Directions for the Twenty-First Century (pp. 73-96). New York: Oxford University Press.
- Perry, C. L., Williams, C. L., Veblen-Mortenson, S., Toomey, T.L., Komro, K.A., Anstine, P.A., McGovern, P.G., Finnegan, J.R., Forster, J.L., Wagenaar, A.C. & Wolfson, M. (1996). Project Northland: Outcomes of a communitywide alcohol use prevention program during early adolescence. American Journal of Public Health, 86(7), 956-965.
- Peterson, P. L., Hawkins, J. D., Abbott, R. D. & Catalano, R.F. (1994). Disentangling the effects of parental drinking, family management, and parental alcohol norms on current drinking by Black and White adolescents. Journal of Research on Adolescence, 4, 203-227.
- Philliber Research Associates. (1994, May). An evaluation of the Caring Communities Program at Walbridge Elementary School. St. Louis, MO: Author.
- Phinney, J.S. (1989). Stages of ethnic identity in minority group adolescents. Journal of Early Adolescence, 9, 34-49.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. Psychological Bulletin, 108, 499-514.
- Phinney, J. S. (1991). Ethnic identity and self-esteem. A review and integration. Hispanic Journal of Behavioral Sciences, 13, 193-206.
- Phinney, J. S. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with diverse groups. Journal of Adolescent Research, 7, 156-176.
- Phinney, J. S. & Devich-Navarro, M. (1997). Variations of bicultural identification among African-American and Mexican-American Adolescents. Journal of Research on Adolescence, 7(1), 3-32.
- Phinney, J. S., Lochner, B. & Murphy, R. (1990). Ethnic identity development and psychological adjustment in adolescence. In A. Stiffman & L. Davis (Eds.), Ethnic Issues in Adolescent Mental Health (pp. 53-72). Newbury Park, CA: Sage.
- Piaget, J. (1965). The moral judgment of the child. New York: Free Press.

- Piaget, J. (1952). The origins of intelligence in children. New York: International Universities Press.
- Piper, D. L., King, M. J. & Moberg, D. P. (1993). Implementing a middle school health promotion research project: Lessons our textbook didn't teach us. Evaluation and Program Planning, 16, 171-180.
- Piper, D. L. & Moberg, D. P. (1993, October). The Healthy For Life Project: Initial outcome results. Poster session presented at the American Public Health Association meeting, San Francisco, CA.
- Pittman, K. J. (1991). Promoting youth development: Strengthening the role of youth-serving and community organizations. Report prepared for The U.S. Department of Agriculture Extension Services. Washington, DC: Center for Youth Development and Policy Research.
- Pittman, K. J. & Fleming, W. E. (1991, September). A new vision: Promoting youth development. Written transcript of live testimony by Karen J. Pittman given before The House Select Committee on Children, Youth and Families. Washington, DC: Center for Youth Development and Policy Research.
- Pittman, K. J., O'Brien, R. & Kimball, M. (1993). Youth development and resiliency research: Making connections to substance abuse prevention. Report prepared for The Center for Substance Abuse Prevention. Washington, DC: Center for Youth Development and Policy Research.
- Pittman, K. J. & Wright, M. (1991). Bridging the gap: A rationale for enhancing the role of community organizations promoting youth development. Report prepared for The Task Force on Youth Development and Community Programs at the Carnegie Council on Adolescent Development. Washington, DC: Center for Youth Development and Policy Research.
- Plummer, D. L. (1995). Patterns of racial identity development of African American adolescent males and females. Journal of Black Psychology, 21(2), 168-180.
- Pollard, J., Catalano, R. F., Hawkins, J. D. & Arthur, M. W. (1997). Development of a school-based survey measuring risk and protective factors predictive of substance abuse, delinquency, and other problem behaviors in adolescent populations. Manuscript under review.
- Pollard, J., Hawkins, J. D. & Arthur, M. W. (1998). Risk and protection: Are both necessary to understand diverse behavioral outcomes in adolescence? Manuscript submitted for publication.
- Postrado, L. T. & Nicholson, H. J. (1990). Girls Incorporated's evaluation of a comprehensive approach to preventing adolescent pregnancy. Paper presented at the American Evaluation Association Conference, Washington, D.C.
- Prothrow-Stith, D. (1991). Deadly consequences. New York : Harper Collins.
- Prothrow-Stith, D., Spivak, H. & Hausman, A.J. (1987). The Violence Prevention Project: A public health approach. Science, Technology, and Human Values, 12, 67-69.
- Public/Private Ventures (1996). Public/Private Ventures News, 11(1). Philadelphia, PA: Author.

- Public/Private Ventures. (1996). Executive Summary: Making a Difference: An Impact Study of Big Brothers/Big Sisters. Philadelphia: [<http://epn.org/ppv/ppbbbs.html>].
- Quint, J. (1991). Project Redirection: Making and measuring a difference. Evaluation and Program Planning, 14, 75-86.
- Ramirez, S. & Dewar, T. (1997). El Puente Academy for Peace and Justice: A case study of building social capital. Rainbow Research, Inc.
- Resnicow, K., Cohn, L., Reinhardt, J., Cross, D., Futterman, R., Kirschner, E., Wynder, E. L. & Allegrante, J. P. (1992). A three-year evaluation of the Know Your Body Program in inner-city schoolchildren. Health Education Quarterly, 19(4), 463-480
- Resnicow, K., Cross, D., Lacosse, J. & Nichols, P. (1993) Evaluation of a school-site cardiovascular risk factor screening intervention. Preventive Medicine, 22(6), 838-856.
- Resnicow, K., Orlandi, M. A., Vaccaro, D. & Wynder, E. (1989). Implementation of a pilot school-site cholesterol reduction intervention. Journal of School Health, 59(2): 74-78.
- Richards-Colocino, N., McKenzie, P. & Newton, R. R. (1996). Project Success: Comprehensive intervention services for middle school high-risk youth. Journal of Adolescent Research, 11(1), 130-163.
- Robins, L. N. (1980). The natural history of drug abuse. Acta Psychiatrica Scandinavica, 62(Suppl. 284), 7-20.
- Rosenstock, I. M., Strecher, V. J. & Becker, M. H. (1988). Social learning theory and the Health Belief Model. Health Education Quarterly, 15(2), 175-183.
- Ross, J. G., Saavedra, P. J., Shur, G. H., Winters, F. & Felner, R. D. (1992). The effectiveness of an after-school program for primary grade latchkey students on precursors of substance abuse. Journal of Community Psychology, OSAP Special Issue, 22-38.
- Rossman, S. B., and Morley, E. (1995, April). The national evaluation of Cities In Schools: Executive summary. Washington, D.C.: The Urban Institute.
- Roth, J., Brooks-Gunn, J., Galen, B., Murray, L., Silverman, P., Liu, H., Man D. & Foster, W. (1997). Promoting Healthy Adolescence: Youth Development Frameworks and Programs. Report to the Robert Wood Johnson Foundation.
- Rutter, M. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorder. British Journal of Psychiatry, 147, 598-611.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. American Journal of Orthopsychiatry, 57(3), 316-331.
- Rutter, M. (1987). Temperament, personality, and personality disorder. British Journal of Psychiatry, 150, 443-458.
- Rutter, M. (1993). Resilience: Some conceptual considerations. Journal of Adolescent Health, 14(8), 626-631.
- Salovey, P. & Mayer, J. D. (1990). Emotional Intelligence. Imagination, Cognition and Personality, 9, 185-211.
- Sameroff, A. J. (1990). Prevention of developmental psychopathology using the transactional model: Perspectives on host, risk agent, and environment interactions. Presented at the Conference on the Present Status and Future Needs of Research on Prevention of Mental Disorders, Washington, D.C.

- Sameroff, A. J. & Seifer, R. (1990) Early contributors to developmental risk. In J. Rolf, A.S. Masten, D. Cicchetti, K.H. Nuechterlein & S. Weintraub (Eds.), Risk and protective factors in the development of psychopathology (pp. 52-66). New York: Cambridge University Press.
- Sands, D. J. & Doll, B. (1996). Fostering self-determination is a developmental task. Journal of Special Education, 30(1), 58-76.
- Scheier, L.M., Botvin, G.J., Diaz, T. & Ifill-Williams, M. (1997). Ethnic identity as a moderator of psychosocial risk and adolescent alcohol and marijuana use: concurrent and longitudinal analyses. Journal of child and adolescent substance abuse, 6(1), 5-20.
- Schinke, S. P., Botvin, G. J., Trimble, J. E., Orlandi, M. A., Gilchrist, L. D. & Locklear, V. S. (1988). Preventing substance abuse among American-Indian adolescents: A bicultural competence skills approach. Journal of Counseling Psychology, 35(1), 87-90.
- Schinke, S. P., Cole, K. C. & Orlandi, M. A. (1991). The effects of Boys and Girls Clubs on alcohol and other drug use and related problems in public housing: Final research report. Rockville, MD: Office of Substance Abuse Prevention.
- Schinke, S., Jansen, M., Kennedy, E. & Shi, Q. (1994). Reducing risk-taking behavior among vulnerable youth: An intervention outcome study. Family Community Health, 16(4), 49-56.
- Schinke, S. P., Orlandi, M. A. & Cole, K. C. (1992). Boys and Girls Clubs in public housing developments: Prevention services for youth at risk. Journal of Community Psychology, OSAP Special Issue.
- Seitz, V., Rosenbaum, L. K. & Apfel, N. H. (1985). Effects of family support intervention: A ten-year follow-up. Child Development, 56, 376-391.
- Selnow, G. W. (1987). Parent-child relationships and single- and two-parent families: Implications for substance usage. Journal of Drug Education, 17, 315-326.
- Shapiro, J. Z., Gaston, S. N., Hebert, J. C. & Guillot, D. J. (1986). LSYOU (Louisiana State Youth Opportunities Unlimited) project evaluation. Baton Rouge, LA: Louisiana State University, College of Education.
- Shope, J. T., Dielman, T. E., Butchart, A. T., Campanelli, P. C. & Kloska, D. D. (1992). An elementary school-based Alcohol Misuse Prevention program: A follow-up evaluation. Journal of Studies on Alcohol, 53(2), 106-121.
- Shope, J. T., Kloska, D. D., Dielman, T. E. & Maharg, R. (1994). Longitudinal evaluation of an enhanced Alcohol Misuse Prevention Study (AMPS) curriculum for grades six-eight. Journal of School Health, 64(4), 160-166.
- Slavin, R. E. (1991). Synthesis of research on cooperative learning. Educational Leadership, 48(5), 71-82.
- Slavin, R. E., Madden, N. A., Dolan, L. J., Wasik, B. A., Ross, S. & Smith, L. (1994). Whenever and Wherever We Choose: The replication of Success for All. Phi Delta Kappa, pp. 639-647.
- Slavin, R. E., Madden, N. A., Dolan, L. J., Wasik, B. A., Ross, S., Smith, L. & Dianda, M. (1996). Success for All: A summary of research. Journal of Education for Students Placed At Risk, 1(1), 41-76.
- Smith, D. W., Redican, K. J. & Olsen, L. K. (1992). The longevity of growing healthy: An analysis of the eight original sites implementing the School Health Curriculum Project. Journal of School Health, 62(3), 83-87.

- Snyder, J. & Zoann, K. (1994). Self-determination in American Indian education: Educator's perspectives on grant, contract, and BIA-administered schools. Journal of American Indian Education, 34(1), 20-34.
- Snow, W. H., Gilchrist, L. D. & Schinke, S. P. (1985). A critique of progress in adolescent smoking prevention. Child & Youth Services, 7(1), 1-19.
- Spencer, J.B. (1990). Development of minority children. An introduction. Child Development, 61(2), 270-289.
- Spencer, J.B. & Markstrom-Adams, C. (1990). Identity processes among racial and ethnic minority children in America. Child Development, 61(2), 29--310.
- Spivack, G. & Shure, M. B. (1982). The cognition of social adjustment: Interpersonal cognitive problem-solving thinking. In B. B. Lahey & A. E. Kazdin (Eds.) Advances in clinical child psychology (Vol. 5, pp. 323-372). New York: Plenum Press.
- Sroufe, L. A. & Rutter, M. (1984). The domain of developmental psychopathology. Child Development, 55(1), 17-29.
- Stark, R. & Bainbridge, W. S. (1997). Religion, Deviance, and Social Control. New York: Routledge, Inc..
- Strader, T., Collins, D., Noe, T. & Johnson, K. (1997). Mobilizing church communities for alcohol and other drug abuse prevention through the use of volunteer church advocate teams. The Journal of Volunteer Administration, 15(2), 16-29.
- Swisher, K. G. (1996). Why Indian people should be the ones to write about Indian education. American Indian Quarterly, 20(1), 83-90.
- Swisher, J. D., Doebler, M. K., Babbitt, M. E. & Walton, H. E. (1991). Review of research and conceptual critique of Here's Looking at You, 2000. Pennsylvania State University.
- The Urban Institute. (1994). Cities in Schools: Preventing school dropouts. Policy and Research Report.
- Thomas, B., Mitchell, A., Devlin, M., Goldsmith, C., Singer, J. & Watters, D. (1992). Small group sex education at school: The McMaster teen program. In B. Miller, J. Card, R. Paikoff & J. Peterson (Eds.), Preventing adolescent pregnancy (pp. 28-52). Newbury Park, CA : Sage Publications.
- Thornberry, T. P., Huizinga, D. & Loeber, R. (1995). The prevention of serious delinquency and violence: Implications from the program of research on the causes and correlates of delinquency. In J.C. Howell, B. Krisberg, J.D. Hawkins & J.J. Wilson (Eds.), A sourcebook: Serious, violent, and chronic juvenile offenders, (pp. 213-237). Thousand Oaks, CA: Sage Publications, Inc.
- Tierney, J. P., Grossman, J. B., with Resch, N. L. (1995). Making a Difference: An Impact Study of Big Brothers/Big Sisters. Philadelphia, PA: Public/Private Ventures.
- Tolan, P.H., Guerra, N.G., Henry, D., Huesmann, L.R., VanAcker, R. & Eron, L. (1998). Proximal effects of the metropolitan area child study. Presentation to the American Psychological Association Annual Meeting. San Francisco, CA: August 15, 1998.
- Tolan, P.H. & McKay, M.M. (1996). Preventing serious antisocial behavior in inner-city children: An empirically-based family intervention program. Family Relations, 45, 148-155.

- Tolan, P. H. & Guerra, N. G. (1994). What works in reducing adolescent violence: An empirical review of the field. Report by the Center for the Study and Prevention of Violence, Institute for Behavioral Sciences.
- Tzuriel, D. & Klein, M. M. (1977). Ego identity: Effects of ethnocentrism, ethnic identification, and cognitive complexity in Israeli Oriental and Western ethnic groups. Psychological Reports, 40(3, Pt 2) 1099-1110.
- U.S. Department of Health and Human Services (1996). Reconnecting Youth & Community. A Youth Development Approach. Silver Spring, MD: National Clearinghouse on Families and Youth.
- U.S. Department of Education (1996). The evaluative report of descriptive district & site data of Florida full service schools, 1993-94. Part of the 1993-94 Evaluation. University of South Florida College of Education Institute for At-Risk Infants, Children & Youth, and their Families.
- Veale, J. R. & Morley, R. E. (1996). School-Based Youth Services Program: Year-end report for 1994-95. Iowa Department of Education.
- W. T. Grant Consortium on the School-Based Promotion of Social Competence. (1992). Drug and alcohol prevention curricula. In J.D. Hawkins, R.F. Catalano & Associates (Eds.), Communities That Care (pp. 129-148). San Francisco: Jossey-Bass Publishers.
- Walker, G. & Vilella-Velez, F. (1992). Anatomy of a demonstration: The Summer Training and Education Program (STEP) from pilot through replication and postprogram impacts. Philadelphia, PA: Public/Private Ventures.
- Walter, H. J., Vaughan, R. D. & Wynder, E. L. (1989). Primary prevention of cancer among children: Changes in cigarette smoking and diet after six years of intervention. Journal of the National Cancer Institute, 81(13), 995-999.
- Waterman, A. S. (1985). Identity in the context of adolescent psychology. In A. S. Waterman, (Ed.), Identity in adolescence: Processes and contents. San Francisco: Jossey-Bass.
- Weeks, K., Levy, S. R., Zhu, C., Perhats, C, Handler, A. & Flay, B. R. (1995). Impact of a school-based AIDS prevention program on young adolescents' self-efficacy skills. Health Education Research, 10(3), 329-344.
- Wehmeyer, M. L. (1996). Student self-report measure of self-determination for students with cognitive disabilities. Education and Training in Mental Retardation and Developmental Disabilities, 31(4), 282-293.
- Weissberg, R. P. & Caplan, M. (1998). Promoting social competence and preventing antisocial behavior in young urban adolescents. Manuscript submitted for publication.
- Weissberg, R. P., Caplan, M. Z. & Bennetto, L. (1988). The Yale-New Haven Social Problem-Solving (SPS) Program for Young Adolescents. New Haven, CT: Yale University.
- Weissberg, R. P., Caplan, M. & Harwood, R. L. (1991). Promoting competent young people in competence-enhancing environments: A systems-based perspective on primary prevention. Journal of Consulting and Clinical Psychology, 59(6), 830-841.

- Weissberg, R. P., Caplan, M. Z. & Sivo, P. J. (1989). A new conceptual framework for establishing school-based social competence promotion programs. In L.A. Bond & B.E. Compas (Eds.), Primary prevention and promotion in the schools (pp. 177-200). Newbury Park, CA: Sage.
- Weissberg, R. P. & Greenberg, M. T. (1997). School and community competence-enhancement and prevention programs. In W. Damon (Series Ed.), I.E. Sigel and K.A. Renninger (Vol. Eds.), Handbook of child psychology: Vol 5. Child psychology in practice (5th ed.). New York: John Wiley & Sons.
- Werner, E. E. (1989). High-risk children in young adulthood: A longitudinal study from birth to 32 years. American Journal of Orthopsychiatry, 59(1), 72-81.
- Werner, E. E. (1995). Resilience in development. Current Directions in Psychological Science, 4(3), 81-85.
- Werner, E. E. & Smith, R. S. (1982). Vulnerable but invincible: A longitudinal study of resilient children and youth. New York: McGraw-Hill.
- Wilson, J. Q. (1990). Drugs and crime. In M. Tonry and J. Q. Wilson (Eds.), Crime and Justice: A Review of Research: Vol. 13. Drugs and Crime (pp. 521-45). Chicago: University of Chicago Press.
- Winters, K.C. & Henly, G.A. (1989). Personal Experience Inventory. Los Angeles: Western Psychological Services.
- Wyman, P. A., Cowen, E. L., Work, W. C. & Kerley, J. H. (1993). The role of children's future expectations in self-esteem functioning and adjustment to life stress: A prospective study of urban at-risk children. Special Issue: Milestones in the development of resilience. Development & Psychopathology, 5(4), 649-661.
- Yoshikawa, H. (1994). Prevention as cumulative protection: Effects of early family support and education on chronic delinquency and its risks. Psychological Bulletin, 115, 28-54.
- Yoshikawa, H. (1995). Long-term effects of early childhood programs on social outcomes and delinquency. The Future of Children, 5(3), 51-75. Los Altos, CA: David & Lucille Packard Foundation.
- Zabin, L. S., Hardy, J. B., Smith, E. A. & Hirsch, M. B. (1986). Substance use and its relation to sexual activity among inner-city adolescents. Journal of Adolescent Health Care, 7, 320-331.
- Zabin, L. S., Hirsch, M. B., Smith, E. A., Streett, R. & Hardy, J. B. (1986). Evaluation of a pregnancy prevention program for urban teenagers. Family Planning Perspectives, 18(3), 119-126.
- Zabin, L. S., Hirsch, M. B., Streett, R., Emerson, M. R., Smith, M., Hardy, J. B. & King, T. M. (1988). The Baltimore Pregnancy Prevention Program for urban teenagers. Family Planning Perspectives, 20(4), 182-187.
- Zigler, E. & Berman, W. (1983). Discerning the future of early childhood intervention. American Psychologist, 38, 894-906.
- Zigler, E. F., Finn, S. M. & Stern, B. M. (1997). Supporting children and families in the schools: The School of the 21st century. American Journal of Orthopsychiatry, 67(3), 396-407.
- Zimmerman, J. D. (1996). A prosocial media strategy: Youth Against Violence: Choose to De-Fuse. American Journal of Orthopsychiatry, 66(3), 354-362.

