

**CONTEMPORARY MODELS OF YOUTH DEVELOPMENT AND PROBLEM PREVENTION:
TOWARD A CLARIFICATION AND ELABORATION OF CONCEPTS AND FRAMEWORKS**

Stephen Small and Marina Memmo
Human Development & Family Studies
University of Wisconsin-Madison
1300 Linden Drive
Madison, WI 53706
SASMALL@FACSTAFF.WISC.EDU
MCMEMMO@STUDENTS.WISC.EDU

Draft: January 11, 2002

ABSTRACT

Over the past decade, practitioners, policymakers, and researchers have become increasingly interested in preventing youth problems and promoting healthy youth development. In response to this interest, a wide range of programs and community initiatives based on a variety of theoretical frameworks have been promoted and implemented. Unfortunately, the growth in the number of programs and models along with the absence of an agreed upon conceptualization and terminology has contributed to some confusion. In this article, we provide an overview of three approaches to youth development and problem prevention that have gained prominence in the field: prevention, resilience and positive youth development. We critically examine their strengths and weaknesses and offer some elaborations that we believe help to further clarify and extend the models. We conclude by considering what each of these models contributes to a more comprehensive approach and how such an approach can help practitioners and policymakers more effectively develop programs and policies that promote healthy youth development.

Key Words: Adolescence, assets, prevention, resiliency

Contemporary models of youth development and problem prevention:

Toward a clarification and elaboration of concepts and frameworks

In recent years scholars and professionals interested in youth development and problem prevention have witnessed a proliferation of competing theoretical concepts and frameworks. Not surprisingly, this growth in the number of approaches, along with the lack of a consistent vocabulary and a common conceptual scheme, has created some confusion in the field. In this paper we briefly review the most prominent of these approaches, examine their origins, and highlight what we believe to be their primary strengths and weaknesses. We then discuss how the models complement one another and contribute to our understanding of youth development and well-being. We end by considering some general implications that can be drawn from this discussion that will hopefully be of some benefit to individuals interested in developing policies and programs on behalf of youth.

Contemporary models of youth development and problem prevention can generally be grouped into one of three types: prevention, resiliency, and positive youth development. While each of these approaches make a unique contribution to our understanding of coping and human adaptation, they also share several key features and a mutual vision directed at improving the life chances of young people. Unfortunately, a brief examination of the literature quickly demonstrates the need for greater consistency in the terminology used to designate certain fundamental constructs that are common across these approaches. The most important of which are those related to risk and protection, assets or resources, and the designation of successful outcomes. For this reason, we begin with a brief discussion of terminology in order to provide readers with a clearer understanding of what we mean by each of these terms.

CLARIFICATION OF KEY CONCEPTS

Within the literature on youth development and problem prevention a common source of confusion exists with regard to how various terms related to risk and protection are generally used. An important but frequently overlooked distinction is between risk and protective *factors* which serve as probability markers, and risk and protective *processes* which seek to describe specific causal paths or mechanisms to explain the reason for increased risk or protection (Kirby & Fraser, 1997; Rutter, 1993).

The construct of a risk factor was initially derived from studies in epidemiology where the goal was to identify statistical correlates of illnesses such as breast cancer or heart disease within a particular group or population. Risk factors are typically defined as individual or environmental markers that are related to an increased likelihood that a negative outcome will occur (Coie, et. al, 1993; Kirby & Fraser, 1997). Conversely, protective factors are usually defined as individual or environmental safeguards that enhance a person's ability to resist stressful life events, risks or hazards and promote adaptation and competence (Rutter, 1987). As they are currently defined and used, risk and protective factors serve as probability markers for the likelihood of a problem occurring. Consequently, they are much more useful in predicting outcomes for populations than for individuals (Durlak, 1997).

While risk and protective factors provide us with general information about where to target intervention efforts, the identification of *processes or mechanisms* provides insight into what might be done to alter the situation. For example, poverty is a frequently cited risk factor for a host of problematic outcomes. But poverty does not in and of itself explain why there is an increased risk. Rather, it serves as a marker for a host of risk processes that commonly accompany poverty. For example, poor families have fewer financial resources to purchase

material goods, have access to lower quality services and schools, may live in more dangerous neighborhoods, often experience higher levels of day to day stress, and may have fewer social supports due to greater mobility rates and increased family isolation.

In addition, it should be recognized that a protective factor is not the same as the absence of a risk factor nor is it the same as a developmental asset, although these terms are commonly used interchangeably. In order to avoid confounding these constructs we find it useful to keep in mind Rutter's (1987) often overlooked but important distinction: a protective factor only operates when a risk factor is present. While it serves to decrease an individual's vulnerability to risk, it does not enhance his or her potential in other areas. For example, the use of condoms only serves as a protective factor for sexually transmitted diseases when an individual is sexually active and exposed to the disease. Similarly, the use of automobile seatbelts can protect individuals from serious injury, but only when the automobile is involved in an accident.

On the other hand, developmental resources or assets are responsible for enhancing and promoting outcomes that are indicative of competence among youth. The recent upsurge of interest in the fundamental role that assets play in fostering positive youth outcomes rounds out our understanding of the principal components necessary for a comprehensive model of development. Assets are defined as the "building blocks" that are crucial for promoting healthy youth development and well-being (Benson, 1997; Benson, Leffert, Scales, & Blyth, 1998). Just as being disease free is not all there is to being healthy, the observation that a risk free youth is not necessarily fully prepared for adulthood must be acknowledged (Pittman & Irby, 1995). Assets are a critical component of normative youth development and are vital to the well being of all youth. As Masten and Coatsworth (1998) point out, "...competence develops in the midst

of adversity when despite the situation at hand, *fundamental systems that generally foster competence* in development are operating...”(p.202; italics added).

We believe that a lack of assets is directly related to a youth’s failure to thrive, but only indirectly related to problem behaviors. As is often the case among children with few assets, a failure to thrive occurs when a child lacks essential growth opportunities needed for normal development. However, these same conditions may also heighten vulnerability, because the positive features that are absent in asset-poor environments tend to be replaced by hazardous or socially toxic (Garbarino, 1995) conditions that generate risk. It is the presence of risk, rather than a lack of assets, that directly leads to problem behaviors. Therefore, while a youth with many assets may thrive developmentally in many ways, he or she may still exhibit a problem behavior if an unchecked risk process is present in his or her environment.

Finally, in any discussion of youth outcomes, attention must be paid to how the goals of development are defined and operationalized by the parties involved. In the most general sense, the aim of research and practice in youth development and problem prevention is to reduce problem behaviors and enhance competence among youth. While this may seem self evident, difficulties arise when individuals differ in their opinions as to what may constitute a problem behavior or a display of competence. For example, while assertiveness is generally regarded as a sign of competence in western society, it may be interpreted as a problem behavior in other cultures. Therefore, it is important to recognize that social, cultural and historical forces play a large role in any evaluation of outcomes as either positive or negative (Bartelt, 1994; Luthar, 1993; Brodsky, 1997). It is not our purpose here to establish a criteria for what may constitute a desirable outcome, but rather to encourage individuals to be cognizant of the role contextual factors play in their own point of view as well as that of others.

Having established a basic terminology, we now turn to a review of three approaches to youth development and problem prevention that have gained prominence in the field: prevention, resilience and positive youth development. While these three approaches are all built upon the basic principles of risk, protection, assets and outcomes, they differ with regard to the relative emphasis they place on each construct. Our goal in the next few sections is to provide the reader with an overview of the primary features that distinguish one approach from another, as well as to highlight the inherent strengths and weaknesses of each.

PREVENTION

The prevention paradigm grew out of the realization that it can often be more cost effective and efficient to prevent problems from occurring in the first place than to treat them after they are established. Although prevention approaches have been around since the early 1900's (Durlak, 1997), the modern prevention movement related to the well-being of youth emerged about 20 to 25 years ago. It grew out of public health and epidemiological approaches to disease prevention (Bloom, 1996; Leavell & Clark, 1953) and was also influenced by the mental health field, especially the work on schizophrenia and other mental illness (Caplan, 1964; Cicchetti & Garnezy, 1993; Tolan, 1996). This approach serves as the foundation for many current youth initiatives such as Hawkins and Catalano's Communities that Care program (1992), Lofquist's Prevention Youth Development Model (1977) and Wisconsin's Youth Future program (Bogenschneider, 1996).

Traditionally, prevention has been differentiated into three different types: primary, secondary and tertiary (Caplan, 1964). Primary prevention is concerned with preventing the initial occurrence of a problem within a normal population. Secondary prevention involves intervening with populations which show signs of early problems so that more serious problems

can be prevented. Tertiary prevention involves the reduction of a disorder among a group of people who are already experiencing the problem (Bloom, 1996). In recent years preventionists have argued that only interventions that occur before the onset of serious problems should be considered prevention (Durlak, 1997; Institute of Medicine, 1994; Munoz, Mrazek & Haggerty, 1996) and that interventions that address an existing disorder (i.e., tertiary prevention) should be viewed as a form of treatment. They also recommend that prevention be divided into three intervention subcategories: universal, selective and indicated . *Universal* prevention involves interventions directed at the general public or an entire population (e.g., all middle school students); *selective* preventive interventions are directed at a subgroup of a population that is at risk of developing the disorder or problem but is not yet exhibiting any difficulties; *indicated* prevention involves interventions targeted at high risk individuals who have been found to show some signs or symptoms of a problem. In terms of old and new terminology, primary and universal prevention are often used interchangeably as are indicated and secondary prevention (Durlak, 1997).

Programmatically, the two key strategies in the prevention model are to reduce or eliminate risk factors and to increase or enhance protective factors. It may also involve enhancing the strengths, skills, or competencies of the target group so that they will be better able to cope with the stress or challenge that may result in future problems (Durlak,1997). “

Most contemporary prevention researchers and practitioners view prevention within an ecological framework (Bloom, 1996; Bronfenbrenner, 1979; 1992; Coie, et.al, 1993; Durlak, 1997; Kelly, 1986) which assumes that risk and protective factors can exist both within individuals and across various levels of the environment in which they live such as the family, peer group, school and community. Closely related is the idea that most problems are multiply

determined. In other words, there may be many diverse paths to the development of any particular problem, and efforts to address a single cause are likely to fail, because most problems have multiple causes (Small & Luster, 1994). Similarly, the same risk factor can be related to a variety of different outcomes. An equally important corollary of the model is that efforts to prevent youth problems must take into account and target these multiple levels (Bogenschneider, Small & Riley, 1990; Small & Luster, 1994).

Risk factors often co-occur, and when they do, they appear to carry additive and sometimes exponential risks (Masten, Morison, Pellegrini & Telegen, 1990; Rutter, 1979). For instance, children with one or two risk factors may be at no higher risk than those with no risk factors present. However, when risks begin to accumulate, the probability of a problematic outcome occurring may increase substantially. For example, Rutter (1979) found no differences in the rates of child psychiatric disorders in children with one or no risk factors. But the probability of psychiatric disorder increased five times for those children with 3 or 4 risk factors present and twenty times for those children who had 4 to 6 risk factors present. One explanation for the cumulative effect of risk factors is that the more risk factors that are present the more likely an individual will be exposed to causal processes to which they are vulnerable. An alternative and equally likely explanation for this effect is that as the number of risk factors reach a certain threshold, individuals are overwhelmed and no longer able to cope with the accumulated stress (Garbarino, 1995).

Strengths, weaknesses and elaborations of the prevention approach

The prevention model has been widely accepted and used in the youth development field. It serves as the primary blueprint for most current drug, delinquency, violence and teen pregnancy prevention programs. The model provides an intuitive, logical framework and

language for conceptualizing and addressing youth problems. Perhaps most importantly, a fairly substantial research-based literature has emerged in the past ten years that has identified numerous risk and protective factors related to common youth problems.

One limitation of the prevention model is that it tends to be deficit oriented, emphasizing youth problems (Benson, 1997; Pittman & Cahill, 1991). It leads us to look at what is wrong with youth, rather than what is right. From a practitioner's stand-point this can be problematic because of its potential to stigmatize youth, undermine their motivation or discourage them from becoming involved in programs in the first place. Perhaps the most critical limitation of a traditional prevention approach is that it typically gives little attention to how to promote normative youth development. Although there are some exceptions (e.g, Cowen, 1994), most prevention programs that do emphasize promoting positive characteristics usually do so primarily as a strategy to prevent a particular problem, not to promote development.

A related limitation of the prevention literature is the lack of attention given to the relative importance of various risk and protective factors. This has been especially common in prevention programming where all risk and protective factors are often viewed as equally influential. Prevention programs often give equal weight to factors that vary a great deal in how strongly they are related to the targeted problem behavior and how malleable or changeable they are. Many programs fail to take into account the strength of association between risks and outcomes in their design. As a general rule, the more proximal the process or influence is to the individual, the more likely it is to have a powerful effect (Bronfenbrenner, 1979). It is worth pointing out that the vast majority of existing evidence on risk factors is correlational, which hampers our ability to determine if a risk factor is simply a statistical marker or an explanatory, causal mechanism.

There also appears to be little recognition that a hypothesized risk or protective mechanism may not apply equally to all persons within a sample. As O'Connor and Rutter (1996) point out it may be that a risk mechanism applies only to a subset of vulnerable individuals or that a protective process may be more effective for some individuals than others. In addition, if we accept Rutter's conceptualization of protective processes as being fairly specific to risk processes, then we need to be more thoughtful about the protective processes we target in our interventions.

RESILIENCE

The study of resilience emerged out of the field of primary prevention when researchers in the area of child psychopathology took note of the fact that most youth who experienced developmental adversity were not destined to develop problem outcomes. Over the past two decades the primary aim of resilience scholars has been to identify and understand those factors that distinguish individuals who demonstrate good adaptation when confronted with adversity from those who emerge with problem behaviors. The resilience approach has also lent itself to the development of a host of initiatives designed to foster resilience among disadvantaged youth. Examples of such programs include Say It Straight (SIS) which targets individual communication skills (Englander-Golden, et al., 1996), Families and Schools Together (FAST) which provide family skills training (McDonald et al., 1991), and the Resilient Youth Curriculum (Richardson & Nixon, 1997) which is aimed at helping youth avoid the pitfalls of violence, drugs and crime and promoting productive, responsible citizenship.

Early research on resilience focused primarily on identifying children living in a variety of stressful situations (e.g., parental mental illness, urban poverty, community violence, chronic illness, and catastrophic live events, see Luthar, Cicchetti & Becker, 2000) and examining the

personal qualities and social processes that differentiate between those who demonstrate successful adaptation from those who do not. During these formative years, resilience was often characterized under the rubric of stress and coping research. For example, Compas (1987) includes studies of resilience or invulnerability-to-stress as one of seven areas of research in which coping is a central theme. In a volume dedicated to stress and coping in childhood, Rutter (1983) defines coping as “individual differences in children’s responses to all manner of stressful events”, and resilience “as part of this general topic” (p.2). In more recent work, what appears to distinguish research on resilience from that of coping is the greater emphasis that coping places on identifying the specific cognitive and behavioral efforts children employ in order to manage a stressful situation. In contrast, the resilience perspective tends to place a greater emphasis on identifying stable characteristics of the child or environment that serve as either an aid to the individual in weathering stressful situations, or permit the individual to recover or adapt after a period of disorganization.

Like most psychological constructs, resilience is difficult to define because it cannot be directly observed or measured. Almost since it was first introduced, the greatest threat to the validity of resilience has been a lack of consensus as to its basic definition. An example of this that has received a good deal of attention is the discrepancy that exists between individuals who view resilience as an *outcome* indicated by the successful adaptation of the individual despite developmental adversity and those who regard it as a *characteristic* of the individual that either influences or leads to successful adaptation. Kaplan (1999) sums up this disparity by asking, “Is resilience the variation in good outcomes among individuals who are at-risk for bad outcomes, or is resilience the qualities possessed by individuals that enable them to have good outcomes?” (pp. 19-20).

The notion of resilience as an outcome or response as opposed to a characteristic of the individual is consistent with original formulations of the construct as “the positive pole of individual differences in people’s response to stress and adversity” (Rutter, 1987; p. 316). Here resilience is viewed as the attainment of developmental expectations despite significant odds or adversities (Masten, 1994). In order to understand why individuals differ in their response to risk situations, this perspective considers how multiple forces interact or operate across time. These include the presence of multiple sources of risk and protection, a person’s genetic sensitivity, his or her past experiences, the nature of the crisis situation, the social relationships he or she maintains, and opportunities for change or adjustment that may become available in the future (see Rutter, 1999a).

In contrast to this perspective, many popular definitions of resilience place the locus of the phenomenon squarely within the person, describing it as a capacity available to all individuals that is either “innate” (Bernard, 1995, 1999) or in need of development (Henderson, 1999). When resilience is identified as a characteristic of the individual it is for all practical purposes indistinguishable from the construct of hardiness (Kaplan, 1999). Hardy individuals view the world as less threatening and more controllable than their less hardy counterparts. They are more likely to anticipate and welcome change in their lives and to believe in their ability to master a new situation (Kobasa, 1979). These characteristics act to moderate the experience of stress by increasing the likelihood that an individual will use adaptive coping strategies in times of adversity (Gentry & Kobasa, 1984). This view of resilience is consistent with the American ethic and the “Horatio Alger” notion of success where hardship can be overcome through good fortune, a strong will, and hard work (Bartelt, 1994; Tarter & Vanyukov, 1999). Intervention

efforts based on this line of reasoning strongly emphasize the strengths of the individual and the importance of fostering personal empowerment (see Henderson, 1999).

Most scholars would agree that two conditions must exist for resilience to be demonstrated: 1) the experience of extreme stress or multiple stressors; 2) the manifestation of successful adaptation or competence despite such hurdles (Bartelt, 1994; Rutter, 1987; Werner, 1993). These two factors represent a temporal arrangement of events that must be observed in order for resilience to be manifested.

Recently the concept of resilience has been expanded from its original focus on individual development to a broader focus that includes social institutions that foster development such as the family (McCubbin, et al., 1997) and community (Center for Community Enterprise, 2000). For example, McCubbin and his colleagues view resiliency as the positive behavior patterns exhibited by both individuals and the family unit when they are able to recover in the face of adversity. In addition to viewing the family system as possessing the potential to be resilient, McCubbin and his colleagues also make a conceptual distinction between *protective* factors that are associated with the family's ability to endure and *recovery* factors that are associated with the families ability to regroup after a period of disorganization (McCubbin, et al., 1997).

Strengths, weaknesses and elaborations of the resilience approach

Without doubt, the popularity of a resilience perspective as the basis for research and program development has successfully mobilized a great deal of support for programs promoting positive youth development. The appeal of this perspective rests largely on the hope that young people who experience severe stress or adversity may escape the negative consequences associated with such situations and develop into competent, problem free individuals. This hope

is especially poignant in a world where it is impossible to remove all sources of risk that may negatively impact the development of youth. However, progress in our understanding of resilience is severely hampered by the lack of consistency in how it is defined and the implications one may draw from the various ways it is currently applied.

When resilience is defined as a display of competence despite developmental adversity, the processes which lead to resilience are essentially indistinguishable from those associated with the development of competence under normative conditions (Masten & Coatsworth, 1998). This has led some scholars to apply the term so broadly that resilience loses its conceptual coherence as a unique construct. For example, Bernard (1996) argues that “the development of resilience is none other than the process of healthy human development” which is based upon a “biological imperative for growth” that “unfolds naturally in the presence of certain environmental attributes” (p.7). This position omits the necessary qualification that in order for resilience to be demonstrated such development must occur within the context of severe adversity. In her desire to be optimistic, Bernard glosses over the very grim realities that afflict many youth who *fail* to demonstrate resilience. What we are left with is a term that can be applied to anyone and everyone experiencing normative developmental stress. Such usage has prompted scholars to caution that while individuals are free to apply the term resilience to any number of phenomenon, it must be understood that such applications may “bear no relationship whatsoever to... the way in which the term is used by most resilience researchers...” (Rutter, 1999b; p. 159).

Other limitations of a resilience perspective rest in part on the nature of the definition being applied (Brodsky, 1997). For example, critics argue that when resilience is defined narrowly as a characteristic of the individual there is a tendency to disregard the context (Tolan,

1996). It is well understood that severe environmental stressors such as homelessness and abuse have a negative impact on even the hardest of young people. To ignore this fact and focus only on bolstering a young person's resistance may place an undue burden on the individual and create the potential for blaming the victim should he or she fail to live up to expectations. Furthermore, many of the personal characteristics that typically distinguish individuals who are resilient from those who are not (e.g., social competence, problem-solving skills, and a critical consciousness; see Bernard, 1996) are poor targets for intervention, because they may have a strong genetic component and are thus difficult to modify. Finally, an overemphasis on making the individual more resistant can divert attention away from efforts to reduce the presence of environmental and contextual risk processes over which practitioners and policy makers may have more influence.

An additional concern is whether resilience should be conceptualized as a phenomenon that is robust across developmental domains or one that is more domain specific. In the early days of resilience research, individuals who appeared particularly stress-resistant and demonstrated successful adaptation despite exposure to severe adversity were identified as *invulnerable* or *invincible* (e.g., Anthony, 1974; Werner & Smith, 1982). It was assumed that the factors that made these individuals resilient in one domain would transfer across most life situations. However, it soon became apparent that such terms fail to accurately characterize the life experiences of these individuals. Rutter (1993) was one of the first to point out that it is misleading to assume that certain individuals are invulnerable. Such a notion implies that a person possesses an unchanging intrinsic characteristic that imparts absolute resistance to damage in all risk circumstances. Rather, Rutter points out that everyone is vulnerable to some degree of stress, and since the processes that foster resilience are as likely to reside in the social

context as in the individual, they are likely to vary from one context to another. Similarly, Luthar (1993) warns us that notions of overall resilience are of little value given that in most empirical studies resilient individuals are found to vary in adjustment depending on the developmental domain under consideration.

Finally, one must be careful of research on resiliency which classifies individuals as resilient because they are assessed as competent or problem-free while also being a member an at-risk group. Being classified as at-risk does not necessarily imply exposure to risk or heightened vulnerability (Richters & Weintraub, 1990; Masten, Best & Garmezy, 1990). For example, an individual may belong to an at-risk group based upon distal variables, such as low socioeconomic status or minority group membership, without ever being exposed to the underlying proximal processes that have been found to increased vulnerability (e.g., parental neglect or experiences of racism). Therefore, unless it is first established that an individual has in fact experienced a risk process it is impossible to determine whether good outcomes are indicative of true resiliency or simply a lack of exposure to adversity.

Based on the literature, we feel that a resilience is best demonstrated when an individual both avoids problem behaviors and attains developmental expectations despite exposure to significant risk (Rutter, 1993; Masten, 1994). Given this, it appears that resilience may result from at least four distinct mechanisms. These processes are not mutually exclusive and may co-occur. However, it must be kept in mind that while all may contribute to resilience, some deserve greater attention than others, because they are more amenable to intervention.. Below we elaborate on these mechanisms and suggest some conceptual distinctions that we hope will bring greater clarity to the construct.

First, resilience may occur as a result of certain exceptional personal characteristics possessed by an individual such as high intelligence or sociability. Such traits are typically associated with an individual's innate abilities or unique temperament and are generally believed to have a strong genetic or biological basis. For this reason, while efforts may be made to enhance a person's inherent tendencies, it is unlikely that such approaches will have much of an impact. A more prudent course of action would be to utilize our knowledge of how these traits operate in order to control for some of the variability that may occur in an evaluation of the effectiveness of intervention efforts targeting contextual or situational factors.

Second, resilience may result from the successful operation of protective factors or processes. This is the most commonly studied pathway to resilience since the mechanisms responsible are largely contextual and thus subject to manipulation. As noted earlier, protective factors are individual or environmental safeguards that operate in the presence of risk by increasing the likelihood that a person would be able to resist stressful life events (Rutter, 1987). Protective mechanisms operate early in the resilience process before damage is done, and serve to buffer an individual from the impact of a stressor or hazardous condition. They are often operationalized as outside the volitional control of the target individual; resulting instead from the actions of others or conditions in the environment. Therefore, unlike coping which requires action on the part of the individual, protective processes may operate without the individual's knowledge or active involvement.

The ability to successfully recover from a stressful situation or crisis event is a third way that resilience may be achieved. In contrast to protective processes, coping or recovery processes operate after the stressful event has occurred and the individual has experienced some distress or trauma. Coping may involve a variety of actions including eliminating or reducing the number

and intensity of demands created by the crisis, acquiring additional resources to aid the individual or family, using strategies for managing personal tension and stress, and reevaluating meanings related to a situation to make it more constructive, manageable, and acceptable (McCubbin, et. al., 1997).

Finally, a fourth mechanism that has received less attention, but may also contribute to resilience is the process of *steeling* (Rutter, 1981, 2000; Rutter & Maughan, 1997). Steeling occurs when individuals overcome challenging experiences that strengthen their capacity to withstand or cope with subsequent stressful situations. Unlike a genetically determined personal characteristic, steeling occurs in response to prior experiences in an individual's life. It may be compared to a technique used by gardeners to increase the hardiness of greenhouse plants prior to planting outdoors. Before they are removed from their containers, plants are placed outdoors for increasingly longer time periods of time where they are buffeted by wind and rain. Eventually they grow stronger and are better able to withstand the harsher outdoor environment.

While there have been few empirical examinations of this process, Elder's (1974) seminal study, "Children of the Great Depression," provides a good example of how steeling may occur in a population. Elder found that adolescent boys whose families were hardest hit by the Great Depression actually profited by the experience, doing better later in life than their peers who experienced less hardship. Apparently, the experience of economic loss and deprivation "hardened" them by leading them to take on adult roles and responsibilities that resulted in developmental benefits later in life.

POSITIVE YOUTH DEVELOPMENT

Within the past few years, an approach to problem prevention that emphasizes the positive aspects of youth development and health has emerged among youth policymakers,

programmers and practitioners. This approach has become especially popular with traditional youth serving agencies that provide after school and non-formal educational programs and with wider ranging initiatives that seek to not only foster youth development, but the development of the community as well. Falling under the rubric of positive youth development are such approaches as the Search Institute's Developmental Asset model (Benson, 1997), Public/Private Venture's Community Change for Youth Development (Hartmann, Watson & Kantore, 2001; Sipe, Ma & Gambone, 1998), the Center for Youth Development and Policy Research's Youth Development Mobilization framework (n.d.), and the National Network for Youth's Community Youth Development framework (Hughes & Curnan, 2000). In contrast to traditional prevention approaches, these initiatives emphasize the promotion of positive development and the conditions that contribute to youth health and well-being. They assume that simply preventing problems is not enough to prepare youth for adulthood. (Roth, Brooks-Gunn, Murray & Foster, 1998).

There has been some confusion regarding the term positive youth development. As Hamilton notes (2000), the term has been used in at least three different ways: 1) to describe the natural process of development in children and adolescents; 2) as a category of programs and organizations that provide activities that promote a young person's development; and 3) as a unifying philosophy that is characterized by a positive, asset-building orientation, building on strengths rather than categorizing youth according to their deficits. It is with this last definition that we are most interested. This approach to fostering youth development is directly related to and has been very influential in how organizations and agencies have begun to develop programs and community initiatives on behalf of youth.

Drawing on the work of scholars in this area (Connell, Gambone, & Smith, 1998; Pittman & Irby, 1995; Pittman & Zeldin, 1995; Roth, Brooks-Gunn, Murray & Foster, 1998) it appears that the positive youth development framework is based on the following assumptions: 1) Helping youth achieve their full potential is the best way to prevent them from experiencing problems; 2) Youth need to experience a set of supports and opportunities to succeed; 3) Communities need to mobilize and build capacity to support the development of youth; and 4) Youth should not be viewed as problems to be fixed, but as partners to be cultivated and developed.

Scholars in this area posit that there are a number of critical experiences, opportunities and supports that young people need in order to successfully develop into adulthood. For example, Pittman and Irby (1995) argue that youth need seven critical “inputs”: stable places, basic care and services, healthy relationships with peers and adults, high expectations and standards, role models, resources and networks, challenging experiences and opportunities to participate and contribute, and high quality instruction and training. Zeldin, Kimball and Price (1995) suggest that what young people need can be reduced to three critical things: safe places, challenging experiences and caring people.

One of the most widespread positive youth development frameworks in recent years is the Search Institute’s Developmental Asset model (Benson, 1997). This model is built around 40 developmental assets that are defined as the building blocks that are crucial for promoting healthy youth development and well-being (Benson, Leffert, Scales, & Blyth, 1998). According to the Search Institute, assets center on the relationships, social environments, patterns of interactions and norms that are central to promoting youth development. The 40 developmental assets in the Search model are divided into internal and external assets which are further

separated into seven different categories: support, empowerment, boundaries and expectations, constructive use of time, commitment to learning, positive values and social competence.

Strengths, weaknesses and elaborations of the positive youth development approach

It is likely that the current appeal of the positive youth development approach stems from a number of factors. First, programs and services for youth have been dominated by public health and prevention approaches that have primarily focused on problems and largely ignored the developmental needs of youth and the skills and attitudes they must acquire to become responsible and capable adults. A second attraction of the positive youth development approach is that since its focus is on youth development in general, it has relevance for all youth, not just certain targeted groups or those at risk for specific problems. This gives it wide appeal since it does not single out or omit any particular group, nor does it necessarily define a social problem to address. Politically, it is much safer to identify and confirm what is right about young people than to come to agreement about what is wrong with them.

Reaching a consensus about whether a social problem really exists, if it is worthy of attention, or how it should be addressed, can be politically complex. In contrast, a broad, strengths-based, positive focus on youth development can provide a very large tent under which many politically and institutionally different groups, programs and organizations can come together and find agreement. Finally, the Search Institute asset model has proven to be a very useful one for many youth practitioners and community leaders. It has provided a common language and an easy to understand framework for thinking about and discussing youth development.

The positive youth development framework has much to offer, but like the other models it has its share of weaknesses. First, the approach tends to overlook the fact that youth do face

risks that can jeopardize their health and development. Although promoting positive development may serve to protect youth by strengthening their ability to avoid or overcome risks, young people still face dangers that need to be addressed. For example, in our own research (authors citation) we found that while the likelihood of a problem behavior steadily decreases as the number of assets an individual possesses rises, the presence of even a single risk factor may double or triple the occurrence of a problem behavior, even among youth who report many assets.

Furthermore, as with the prevention approach, there has been little discussion among those who promote the youth development philosophy regarding the relative importance of particular assets. Typically, all assets are viewed as equally significant. However, our research (authors citation) has shown that certain assets are more important than others, and that the significance of a particular asset is likely to vary as a function of both individual and contextual factors (e.g., developmental status, ethnicity, and community context) as well as the developmental outcome of interest. In addition, all assets are not equally amenable to change, although the literature has been fairly quiet on this topic. For instance, some assets are more easily promoted because of a better understanding of the change processes involved, the availability of the community resources and expertise needed, or because the political climate of the community is more receptive to addressing the factor.

The simplicity of the Search Institute Developmental Assets framework has contributed to its widespread appeal and acceptance by many youth practitioners, community leaders and citizens. However, this same simplicity has diminished its value as theoretical framework for scholars and as an implementation framework for practitioners. In the Search asset framework the concept of asset is operationalized so broadly that it appears to cover most everything

including protective factors, the absence of risk factors, coping processes, recovery factors, developmental resources and developmental outcomes. This tendency to include nearly everything as an asset in the working model can be contrasted with Search Institute's own definition of an asset which seems more limited and reasonable: the building blocks that are crucial for promoting healthy youth development and well-being (Benson, Leffert, Scales, & Blyth, 1998).

Furthermore, it is our observation that the Search framework also appears to mix developmental *outcomes* with the conditions that promote development. A close examination of Search's internal and external assets suggests that what they identify as internal assets (e.g. positive identity, competence, positive values) are what most developmental scholars would consider developmental outcomes, while the external assets (e.g. support, boundaries and expectations) are closer to Search's own definition of assets which they posit "center on the relationships, social environments, patterns of interactions and norms that are central to promoting youth development."

Operationalizing assets so broadly dilutes their usefulness as both a theoretical construct and a practical strategy. As we have discussed throughout this paper, there are important differences between such concepts as risk and protective factors, coping strategies and developmental assets. Failing to recognize these critical conceptual distinctions oversimplifies the complex processes that they entail and limits our understanding. From a more practical perspective, it is important that policy makers and practitioners recognize and understand the different strategies that these diverse concepts imply. For instance, building assets through enhancing a community's infrastructure is a very different from reducing risks by increasing legal sanctions or reducing the drug supply.

GENERAL LESSONS AND IMPLICATIONS

Without a doubt, a broad-based comprehensive strategy is usually the most effective means of improving the life changes of young people, and the three perspectives examined in this review all have a necessary place in youth policy and practice. Clearly, a prevention approach is best if we wish to reduce the chances that young people will succumb to problems that can derail their development and undermine our social fabric. We must target and reduce the risks that can lead to these problematic outcomes and enhance the protective processes that buffer youth in times of adversity. Unfortunately, because it is not always possible to protect young people from harmful influences, we also need to know what it is that enables some youth to withstand and overcome the risks they face. There is great value in helping to build resiliency among young people, especially among those who live in situations that are beyond our power to control. However, even when we have done all we can to address risk, it is still necessary to provide young people with the supports and opportunities that contribute to their healthy development. Building assets into the community and empowering young people to take advantage of growth enhancing experiences contributes not only to the well being of our youth, but to the health of our communities as well.

Finally, despite our best efforts, there will always be individuals who succumb to life's hazards or whose actions are a danger to themselves or others. Thus, there will always be the necessity for legalistic and rehabilitative approaches. Although we have not addressed them in this paper, legal sanctions do have an effect on deterring unwanted behavior, and many youth benefit from rehabilitation services. If our overall goal is the health and development of our young people, then clearly multiple approaches are not only appropriate but necessary. The more comprehensive our strategy, the more effective our efforts are likely to be.

Unfortunately, while the field of youth development and problem prevention has evolved significantly over the past twenty-five years, there has been a tendency among practitioners and policymakers to view innovations in a non-cumulative way, seeing each as a unique and unrelated paradigm. There seems to be a surprising lack of awareness of the historical connections among the models and how they are related to one another. Youth practitioners and policy makers have commonly embraced particular approaches while ignoring or even disparaging others. For example, in recent years positive youth development/asset building has been increasingly adopted as the guiding vision for many programs and funders. The approach has sometimes been embraced with such a fervor that other equally valid and important approaches are ignored or discounted to the possible detriment of those in need. When considering the form a program or policy will take, one should keep in mind the following lessons drawn from the history and practice of youth development and problem prevention.

Knowledge is cumulative

An essential feature of scientific knowledge is that it is cumulative. That is, new insights are built upon the discoveries and innovations of earlier work. Unfortunately, the youth development field sometimes fails to recognize the cumulative nature of knowledge, ignoring or discarding older approaches and findings in light of the new. The legitimate desire to appear progressive in our approach to problem prevention too often results in an over emphasis on what is new and trendy, and a failure to pay attention to the lessons of history and the current scientific knowledge base. This failure to recognize the cumulateness of scientific knowledge has hindered progress in the field.

In addition, nearly all youth development approaches are likely to possess both strengths and weaknesses. It is our responsibility as professionals and scholars to carefully examine each

and embrace and build on those innovations and ideas that have been insightful, helpful and supported by the research. At the same time, we need to guard against the weaknesses and limitations of particular approaches so that we do not waste our time and resources on strategies that are ineffective or harmful. By building on existing knowledge and carefully testing out new ideas we will develop a constantly expanding knowledge base that is useful and reliable. But as we do this we must not forget our earlier lessons or we will find ourselves reinventing the wheel or repeating past mistakes.

Agreeing on our terms is important

A significant problem in the field has been the lack of consensus with respect to the appropriate terminology used to designate key constructs. For instance, when terms like resilience and assets are used to represent a variety of different concepts, their usefulness is seriously reduced and the level of confusion increases. People have difficulty communicating with one another because a particular term may mean different things to them. In addition, precision is lost and with it important distinctions that have implications for what we actually do. New concepts are typically coined because existing terms are inadequate to represent their meaning. We think there is great value in using terms as they were originally defined and not expanding or corrupting their meaning to include anything that an author desires. Agreeing on how we define our terms is the first step in creating a truly unified science and practice of youth development.

Self-interest can blind us to other possibilities

There is a natural, self-preserving tendency for people and organizations to have vested interests in the particular models and approaches with which they are working. These interests influence how we define a problem and the approaches we take to address it. We are often

unaware of how our self-interests can bias how we define a particular problem or whether we even see an issue as a problem. These self-interests can blind us to other ways of seeing an issue and the potential benefits of alternative strategies. For example, adolescent drug abuse may be viewed by law enforcement as a failure to interdict the drug supply or the absence of effective legal deterrents. Health educators may view the problem as a lack of programs that can effectively educate young people about the dangers of drug abuse. Those with a resiliency orientation may see the problem as a need to enhance the ability of young people to be resilient in the face of a drug culture by teaching them skills to help them resist the pressure to use drugs. There appears to be a tendency to define problems in ways that are consistent with our expertise and responsibilities. Although such an approach may be adaptive in keeping us employed, it can blind us to other approaches that may be equally (or more) appropriate and effective.

There is no one best approach

We believe that alone any particular framework is incomplete. Rather, each addresses a unique, but vital part of a comprehensive youth development strategy. Given the diversity of young people and their needs, the complexity of the process of human development, and the dynamic nature of community life, none of the frameworks are by themselves comprehensive enough to meet all these challenges. Too often, a limited degree of success using one approach blinds us to the potential that may exist if it were to be combined with other approaches that emphasize other dimensions.

The appropriateness of any particular approach depends on the issue and context. By *issue* we mean the problems or concerns to be addressed. By *context* we mean the history, politics and values of the community as well as the mission of the particular organization or agency. Some issues lend themselves to certain approaches more so than others. For example, if

the immediate concern is the spread of AIDS and STDs a preventive approach would seem to be an appropriate place to begin. Of course this would not preclude also initiating a more broad based positive youth development strategy that would address the more general developmental needs of local youth. However, the identification of issues depends largely on the context in which they are found. For example, some communities are more ready and willing to acknowledge youth problems and to develop prevention strategies that address them. Other communities may either have difficulty reaching consensus about whether or not a problem even exists and if it does, whether the community has a responsibility to address it. Some communities may find it easier to rally community support around the more optimistic and less controversial goal of positive youth development. In addition, particular agencies or organizations may have specific mandates or missions that may make it difficult for them to adopt certain approaches. While this is understandable, it can also contribute to the problem if an organization continues to provide programs or services based largely on a mission or tradition that has become obsolete, rather than adapting its goals and strategies to better meet the changing needs of the community and its young people.

Identify and address underlying processes

It is important to differentiate between factors and mechanisms whenever we speak of reducing risk, promoting protection, or building assets. In order to effect a difference, we need to look beyond the surface and try to understand the mechanisms or processes that explain why a problem emerges, what may contribute to its reduction, and how to facilitate positive adaptation and development. While risk and asset markers provide hints at where to look, we will not succeed at enhancing development and reducing problems until we identify and alter the underlying mechanisms. Unfortunately, this distinction is rarely made. Part of the problem is that

the field of study is still relatively young and researchers have yet to identify many crucial markers, much less progress in pinpointing the mechanisms that underlie and explain them.

However, the identification of processes or mechanisms is crucial to program designers and practitioners who are interested in creating interventions that lead to positive change. For example, the common practice of targeting risk factors that are only proxies for underlying risk processes are seldom fruitful. If instead, we adopt the strategy of looking deeper to the explanatory mechanisms and addressing them in a tactical manner, we are much more likely to yield successful results (O'Connor & Rutter, 1996). This distinction and logic is applicable regardless of whether one's interest is risk reduction, protection, or asset building.

Target factors strategically

In both the prevention and positive youth development literatures distinctions are rarely made about the importance of particular assets or risk factors. When it comes to program design or policy decisions, it is critical to take into account which factors are most important and whether they can be realistically addressed. How important a factor is can be assessed on a number of criteria such as how strongly it is related to the outcome of interest, how well the underlying mechanism is understood, contextual relevance, ability to change and political feasibility.

A simple examination of effect size (or strength of relationship) can provide starting place for which assets or risk factors are most important to the prediction of particular developmental or problem outcomes. For example, in our own work (author citation) we have made a distinction between simple assets and what we call "critical assets." Critical assets are those assets that are most strongly related to the developmental outcomes of interest. We have found that we can maximize our statistical prediction of an aggregated measure of positive youth

development with a subset of 11 critical assets. These 11 critical assets predict as well as using all 25 assets in our model.

As a general rule the literature suggests that the more proximal (and direct) a process is to an individual the more influential it is likely to be in affecting development and behavior. For example, family factors such as parenting practices tend to be much more strongly related to adolescent behavior than more distal factors like the media or the economy. In addition, both theoretical and empirical work indicate that some risks and assets are much more strongly related to particular outcomes than are others. While it is usually true that assets have a generally positive relationship to a range of developmental outcomes, the importance of any particular asset is likely to vary based on the outcome. For instance, parental interest in schoolwork and involvement in school is a much stronger predictor of school success than of drug use, although it is probably still correlated with both. Consequently, based on the outcomes of interest, it may make more sense to address particular assets.

We also need to take into account the contextual relevance of particular factors. This is the idea that a particular process or factor may have more relevance or impact under certain circumstances such as a specific community or cultural context. For example, we have found that a key developmental asset for a number of youth outcomes is perceiving that the community is a safe place. Although the relationship between this variable and positive youth outcomes holds across a range of diverse communities, some communities are perceived as being less safe than others. Consequently, increasing community safety for young people should be a much higher priority in dangerous communities than in those where most youth already feel safe.

Some assets and risk mechanisms are more amenable to change than are others and we need to consider whether the current knowledge base, change technologies and resources needed

to promote or change a particular process are available. For example, it is a significant leap from knowing that when certain parenting practices naturally occur they are related to particular developmental outcomes to knowing how to change the practices of parents who do not typically use these practices.

Finally, community values and political climate also need to be taken into account. Communities can vary a great deal in their readiness and political will to address particular social issues or problems. Based on a community's history, values and political climate, some approaches will have a greater likelihood of being supported and achieved than others. For example, although a school-based clinic might be an effective way to increase adolescent contraceptive use and provide youth with better access to health care, such a strategy is unlikely to receive much support and succeed in a religiously conservative community.

CONCLUSION

Our review of the literature leads us to conclude that there is no single best approach to addressing all issues related to youth development and problem prevention. Efforts based on prevention, resilience or positive youth development approaches each have a place in practice, programs and policy making. Whether a particular approach is more appropriate than another depends on the issue being addressed, the populations targeted and the community context. It is our view that an effective community strategy for youth development should include to some degree all of the approaches we have reviewed. As we have noted throughout our discussion, each of these approaches has both strengths and weaknesses. Therefore, researchers and practitioners need to bring a critical eye to how they interpret and apply a particular approach, recognizing that there will always be new innovations and that some ideas and practices will become obsolete. Finally, in order for the field of youth development to mature into a unified

discipline, we need to be more consistent in our terminology, work towards developing a common conceptual framework, and create more opportunities for dialogue among both practitioners and researchers. We hope this paper is a first step in that process.

REFERENCES

- Anthony, E.J. (1974). The syndrome of the psychologically invulnerable child. In E.J. Anthony & C. Koupernik (Eds.), The child in his family: Children at psychiatric risk (pp. 529-544). New York: Wiley.
- Bartelt, D.W. (1994). On resilience: Questions of validity. In M.C. Wang & E.W. Gordon (Eds.), Educational resilience in inner-city America (pp. 97-108). Hillsdale, NJ: Erlbaum.
- Benson, P.L. (1997). All kids are our kids: What communities must do to raise caring and responsible children and adolescents. San Francisco, CA: Jossey-Bass.
- Benson, P.L., Leffert, N., Scales, P.C., & Blyth, D.A. (1998). Beyond the “village” rhetoric: Creating healthy communities for children and adolescents. Applied Developmental Science, 2, 138-159.
- Bernard, B. (1995, August). Fostering resilience in children. ERIC Digest. Urbana, IL: University of Illinois.
- Bernard, B. (1999). The foundations of the resiliency paradigm. In N. Henderson, B., Barnard & N. Sharp-Light (Eds.) Resiliency in Action: Practical ideas for overcoming risks and building strengths in youth, families and communities (pp.5-9). Gorham, ME: Resiliency in Action.
- Bloom, M. (1996). Primary prevention practices. Thousand Oaks, CA: Sage Publications.
- Bogensneider, K. (1996). An ecological risk/protective theory for building prevention programs, policies, and community capacity to support youth. Family Relations, 45, 127_138.

Bogenschneider, K., Small, S.A., & Riley, D. (1990, September). Risk and protective factors in adolescent development. Invited address to the Cooperative Extension National Youth-At-Risk Summit. Washington, D.C.

Brodsky, A. (1997). Why the concept of resilience is resilient. The Community Psychologist, 30, 29-32.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1992). Ecological systems theory In R. Vasta (Ed.), Six theories of child development: Revised formulations and current issues (pp. 187_249). London & Philadelphia: Jessica Kingsley.

Caplan, G. (1964). The principles of preventive psychiatry. New York: Basic Books

Center for Community Enterprise (2000). The community resilience manual: A resource for rural recovery and renewal. Port Alberni, BC: CCE Publications.

http://www.cedworks.com/pdf/books/P200_Guide.pdf

Center for Youth Development and Policy Research (no date). Academy for Educational Development, Washington, DC. <http://www.aed.org/us/cyd/work.html>

Cicchetti, D., Garmezy, N. (1993). Prospects and promises in the study of resilience. Development and Psychopathology, 5, 497_502.

Coie, J., Watt, N. West, S., Hawkins, J., Asarnow, J., Markman, H., Ramey, S., Shure, M., & Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. American Psychologist, 48, 1013-1022.

Compas, B. E. (1987). Coping with stress during childhood and adolescence. Psychological Bulletin, 101(3), 393-403.

Connell, J., Gambone, M., & Smith, T. (1998). Youth development in community settings: Challenges to our field and our approach. Philadelphia: Institute for Research and Reform in Education.

Cowen, E. (1994). The enhancement of psychological wellness: Challenges and opportunities. American Journal of Community Psychology, 22, 149-180.

Durlak, J. (1997). Successful prevention programs for children and adolescents. New York: Plenum Press.

Eggert, L.L., Nicholas, L.J., & Owen, L.M. (1995). Reconnecting youth: A peer group approach to building life skills. Bloomington, IN: National Educational Services.

Elder, G. (1974). Children of the great depression. Chicago: University of Chicago Press

Englander-Golden, P., Golden, D., Brookshire, W., Snot, C., Haag, M., and Chang, A. (1996). Communication skills program for prevention of risky behaviors. Journal of Substance Misuse, 1, 38-46.

Garbarino, J. (1995). Raising children in a socially toxic environment. San Francisco : Jossey_Bass.

Gentry, W.D., & Kobasa, S.C. (1984). Social and psychological resources mediating stress-illness relationships in humans. In W.D. Gentry (Ed.), Handbook of behavioral medicine (pp.87-116). New York: Guildford Press.

Hamilton, S. (Personal communication, April, 2000).

Hartmann, T., Watson, B. & Kantore, K. (2001). Community Change for Youth Development in Kansas City: A Case Study of How a Traditional Youth Serving Organization (YMCA) Becomes a Community Builder. Philadelphia: Public/Private Ventures

Hawkins, J. , Catalano, R., and associates. (1992). Communities that care : Action for drug abuse prevention. San Francisco : Jossey_Bass Publishers.

Henderson, N. (1999). Resiliency and Asset Development: A continuum for youth success. In N. Henderson, B., Barnard & N. Sharp-Light (Eds.) Resiliency in Action: Practical ideas for overcoming risks and building strengths in youth, families and communities. (pp.127-131). Gorham, ME: Resiliency in Action.

Hughes, D. & Curnan, S. (2000). Community Youth Development: A Framework for Action. Community Youth Development Journal, 1, 9-13

Institute of Medicine. (1994). Reducing risks for mental health disorders: Frontier for preventive intervention research. Washington, DC: National Academy Press.

Kaplan, H. (1999). Toward an understanding of resilience: A critical review of definitions and models. In M. Glantz and J. Johnson (Eds.), Resilience and development: Positive life adaptations, (pp. 17-83). New York: Kluwer Academic/Plenum.

Kelly, J.G. (1986). An ecological paradigm: Defining mental health consultation as a preventative service. In J.G. Kelly & R.. Hess (Eds.), The ecology of prevention: Illustrating mental health consultation (pp. 1-36). New York: Haworth Press.

Kirby, L. & Fraser, M. (1997). Risk and resilience in childhood. In M. Fraser (Ed.), Risk and resilience in childhood, (pp. 10-33). Washington, DC: NASW Press.

Kobasa, S. (1979). Stressful life events, personality, and health: An inquiry into hardiness. Journal of Personality and Social Psychology, 37, 1-11.

Leavell, H. & Clark, E. (1953). Textbook of preventive medicine. New York: McGraw-Hill.

Lofquist, W. (1983). Discovering the meaning of prevention : a practical approach to positive change. Tucson, Arizona : Associates for Youth Development.

Luthar, S. (1993). Annotation: Methodological and conceptual issues in research on childhood resilience. Journal of Child Psychology and Psychiatry, 34, 441-453.

Luthar, S.S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. Child Development, 71, 543-562.

Masten, A.S. (1994). Resilience in individual development: Successful adaptation despite risk and adversity. In M.C. Wang & E.W. Gordon (Eds.), Educational resilience in inner-city America (pp. 3-25). Hillsdale, NJ: Erlbaum.

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.

Masten, A., Morison, P., Pellegrini, D. & Tellegen, A.(1990). Competence under stress: Risk and protective factors. In J. Rolf, A. Master, D. Cicchetti, K. Nuechterlein & S. Weintraub (Eds.), Risk and protective factors in the development of psychopathology (pp. 236 -256). New York: Guilford Press

Masten, A.S., & Coatsworth, J.D. (1998). The development of competence in favorable and unfavorable environments: Lessons from successful children. American Psychologist, 53, 205-220.

McCubbin, H.I., McCubbin, M.A., Thompson, A.I., Han, S., & Allen, C.T. (1997, Fall). Families under stress: What makes them resilient. Journal of Family and Consumer Sciences, 2-11.

McDonald, L., Billingham, S., Dibble, N., Rice, C., & Coe-Braddish, D. (1991). F.A.S.T.: An innovative substance abuse prevention program. Social Work in Education, *13*(2), 118-121.

Munoz, R.F., Mrazek, P. J. & Haggerty, R.J. (1996). Institute of Medicine report on prevention of mental disorders : Summary and commentary. American Psychologist, *51*, 1116-1122.

O'Connor, T.& Rutter, M. (1996). Risk mechanisms in development: Some conceptual and methodological considerations. Developmental Psychology, *32*, 787-795.

Pittman, K. & Cahill, M. (1991). A new vision: Promoting youth development. Washington, DC: Academy for Educational Development, Center for Youth Development and Policy Research.

Pittman, K. & Irby, M. (1996) Preventing problems or promoting development: competing priorities or inseparable goals? Baltimore, MD: International Youth Foundation.

Pittman, K. & Zeldin, R. (1995). Premises, Principles and Practices: Defining the Why, What and How of Promoting Youth Development through Organizational Practice. Washington DC: Academy for Educational Development, Center for Youth Development and Policy Research.

Richardson, G. & Nixon, C. (1997). A curriculum for resiliency. Principal Magazine, *77*, 26-28.

Richters, J., & Weintraub, S. (1990). Beyond diathesis: Toward an understanding of high risk environments. In J. Rolf, A.S. Masten, D. Cicchetti, K. Nuechterlein, & S. Weintraub (Eds.), Risk and protective factors in development of psychopathology (pp. 67-96). Cambridge: Cambridge University Press.

Roth, J., Brooks-Gunn, J., Murray, L. & Foster, W. (1998). Promoting health adolescents: Synthesis of youth development program evaluations. Journal of Research on Adolescence, 8, 423-459.

Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. In M.W. Kent and J.E. Rolf (Eds.), Primary prevention of psychopathology, Vol. 3: Social competence in children. Hanover, NH: University Press of New England.

Rutter, M. (1981). Stress, coping and development: some issues and some questions. Journal of Child Psychology and Psychiatry, 22, 323_356.

Rutter, M. (1983). Stress, coping and development: Some issues and some questions. In N. Garnezy & M. Rutter (Eds.). Stress, coping and development in children (pp. 1-41). New York: McGraw Hill.

Rutter, M.. (1987). Psychosocial resilience and protective mechanisms. American Journal of Orthopsychiatry, 57, 316-331.

Rutter, M.. (1993) . Resilience: Some conceptual considerations. Journal of Adolescent Health, 14, 626-631.

Rutter, M. (1999a). Resilience concepts and findings: Implications for family therapy. Journal of Family Therapy, 21, 119-144.

Rutter, M. (1999b). Resilience as the millennium Rorschach: Response to Smith and Gorrell Barnes. Journal of Family Therapy, 21, 159-160.

Rutter, M. & Maughan, B. (1997). Psychosocial adversities in psychopathology. Journal of Personality Disorders, 11, 4-18.

Rutter, M. (2000, July). Resilience in the face of adversity. Paper presented at the World Congress on Medicine and Health, Hannover, Germany.

Scales, P. & Leffert, N. (1999). Developmental assets: A synthesis of the scientific research on adolescent development. Minneapolis: Search Institute.

Sipe, C., Ma, P., Gambone, M.A. (1998). Support for Youth: A Profile of Three Communities (A Community Change for Youth Development (CCYD) Report). Philadelphia: Public/Private Ventures.

Small, S.A. & Luster, T. (1994). An ecological, risk-factor approach to adolescent sexual activity. Journal of Marriage and the Family, *56*, 181-192.

Tarter, R. & Vanyukov, M. (1999). Re-visiting the validity of the construct of resilience. In M. Glantz and J. Johnson (Eds.), Resilience and development: Positive life adaptations, (pp. 85-107). New York: Kluwer Academic/Plenum.

Tolan, P. (1996). How resilient is the concept of resilience? The Community Psychologist, *29*, 12-15.

Werner, E.E. (1993). Risk, resilience, and recovery: Perspectives from the Kauai Longitudinal Study, Development and Psychopathology, *5*, 503-515.

Werner, E.E., & Smith, R.S. (1982). Vulnerable but invincible: A study of resilient children and youth. New York: McGraw-Hill

Zeldin, S., Kimball, M., & Price, L. (1995). What are the day to day experiences that promote youth development?: an annotated bibliography of research on adolescents and their families. Washington, DC: Academy for Educational Development, Center for Youth Development and Policy Research.