HOW EDUCATORS CAN NURTURE RESILIENCE IN HIGH-RISK CHILDREN AND THEIR FAMILIES

Donald Meichenbaum, Ph.D.
Distinguished Professor Emeritus,
University of Waterloo
Waterloo, Ontario, Canada
and
Research Director of
The Melissa Institute
for Violence Prevention and Treatment
Miami, Florida

www.melissainstitute.org
and
www.TeachSafeSchools.org

University of Waterloo	**Contact:** *(Oct. – May)*
Department of Psychology	**Donald Meichenbaum**
Waterloo, Ontario	**215 Sand Key Estates Drive**
Canada N2L 3G1	**Clearwater, FL 33767**
Phone: (519) 885-1211 ext. 2551	
Email: dmeich@watarts.uwaterloo.ca	

WAYS TO BOLSTER RESILIENCE IN CHILDREN

In the aftermath of both natural disasters (e.g., hurricanes, tornadoes, earthquakes), and man-made trauma (e.g., terrorist attacks), educators are confronted with the challenging question of how to help their students and families cope and recover from stressful events. There are lessons to be learned from those children and families who evidence "resilience" in the face of stressful events.

To introduce this topic, consider the following question:

> ***"Are there any children in your school who, when you first heard of their backgrounds, you had a great deal of concern about them? Now when you see them in the hall, you have a sense of pride that they are part of your school. These children may cause you to wonder, 'How can that be?'"***

This question has been posed to educators by one of the founders of the research on resilience in children, Norman Garmezy. It reflects the increasing interest in how children who grow up in challenging circumstances and who have experienced traumatic events "make it" against the odds.

The objectives of this section of the **TeachSafeSchools** website **(TSS)** are to identify the features that nurture resilience and to encourage educators to build these features into their school programs.

In order to accomplish this task, we will examine the following questions:

1. **What do we mean by the concept of resilience?**

2. **How many students in the U.S. are exposed to "high risk" environments where the issue of resilience is critical?**

3. **What are the physical and emotional consequences of children who are exposed to multiple risk factors?**

4. **What does research tell us educators need to take into consideration before they try to intervene and attempt to bolster students' resilience?**

5. **What are the characteristics of resilient children?**

6. **What specifically can educators do to foster resilience in children and youth?**

7. **Where can I obtain more information about ways to bolster resilience in students?**

       a) Website Links
       b) References

After each section, we will consider the **IMPLICATIONS FOR EDUCATORS**

We begin with a brief consideration of the <u>definitions offered about resilience</u>.

DEFINITIONS OF RESILIENCE
(See Luthar et al., 2000; Masten & Reed, 2002; Rutter, 1999)

Resilience refers to a class of phenomena characterized by good outcomes <u>in spite of</u> serious threats to adaptation or development. Resilience has been characterized as the ability to:

- ❖ "bounce back and cope effectively in the face of difficulties"

- ❖ "bend, but not break under extreme stress"

- ❖ "rebound from adversities"

- ❖ "handle setbacks, persevere and adapt even when things go awry"

- ❖ "maintain equilibrium following highly aversive events"

Resilience is tied to the ability to learn to live with ongoing fear and uncertainty, namely, the ability to show positive adaptation in spite of significant life adversities and the ability to adapt to difficult and challenging life experiences. As Ernest Hemingway once wrote, ***"The world breaks everyone and afterwards many are strong at the broken places".***

In short, resilience turns victims into survivors and allows survivors to thrive. Resilient individuals can get distressed, but they are able to manage the negative behavioral outcomes in the face of risks without becoming debilitated. Such resilience should be viewed as a relational concept conveying connectedness to family, schools, and community. One can speak of resilient families, schools and communities as well as resilient individuals.

IMPLICATIONS FOR EDUCATORS

Teachers can translate this information about resilience into examples to which young students can relate. The teacher can talk to the class about resilience and use a ball to demonstrate:

> ***The ability to handle stress and respond positively to difficult events is called "resilience". Children can build their own resilience, much like building muscles, by practicing special "bounce back" strategies.***

Teachers can ask students for examples of something they do well. "***How did they get to be so good?"*** The website, ***apahelpcenter.org*** has multiple examples of ways children can practice resilience. These include:

- ❖ have a friend and be a friend
- ❖ take charge of your behavior
- ❖ set new goals and make a plan to reach them
  (Goal – Plan – Do – Check)
- ❖ look at the bright side
- ❖ have hope
- ❖ believe in yourself and in others
- ❖ ask for help if you need it

The following illustrative data on trauma exposure highlights the need for educators to add a fourth "R" standing for "resilience" to the traditional reading, writing, and arithmetic training.

ILLUSTRATIVE EVIDENCE OF THE STRESSORS TO WHICH CHILDREN IN THE U.S. ARE EXPOSED

(See Fraser, 2004; Huang et al., 2005; Jaycox, 2004; Osofsky, 1997;
Schorr, 1998; Smith and Carlson, 1997)

The following illustrative **FACT SHEET** underscores the need to bolster resilience in high-risk children. Between 20% and 50% of American children are victims of violence within their families, at school, or in their communities. Such victimization experiences contribute to impaired school functioning, decreased IQ and reading ability, lower grade point average, more days of school absence and decreased rates of high school graduation. Trauma exposure is related to behavioral problems, particularly aggressive and delinquent behavior, and emotional problems including Post Traumatic Stress Disorder, anxiety and depression disorders. The following FACT SHEET provides more details.

Children Who Suffer From Behavioral and Mental Disorders

❖ One in five children and youth have a diagnosable mental disorder, and 1 in 10 have a serious emotional or behavioral disorder that is severe enough to cause substantial impairment at home, at school or in the community.

❖ Nationally, children with emotional and behavioral disorders in special education classes have the highest school dropout rate (50%).

❖ Mental health problems are associated with lower academic achievement, greater family distress and conflict as well as poorer social functioning in childhood that can extend into adulthood. Most forms of adult psychiatric disorders first appear in childhood and adolescence.

❖ Only 25% of children with emotional and behavioral disorders receive specialty mental health services.

❖ There is increasing evidence that school mental health programs improve educational outcomes by decreasing absences, decreasing discipline referrals and improving test scores.

Children Who Are Maltreated

❖ U.S. Department of Health and Human Services (2003) reports 3 million referrals were made to child protective service agencies in the U.S. regarding the welfare of approximately 5 million children. Approximately 1 million were found to be victims of maltreatment (physical and sexual abuse and/or neglect). In 84 % of the cases, the perpetrators were the parent or parents. On any given day, about 542,000 children are living in foster care in the U.S. These foster children are at

risk for unintended pregnancy, educational underachievement and dropout, substance abuse, psychiatric problems, unemployment and incarceration.

❖ It is estimated that 20 million children live in households with an addicted caregiver and of these, approximately 675,000 children are suspected of being abused. Children of alcoholics have more psychological problems than children of non-substance dependent parents. These problems include increased somatic complaints, anxiety and depression, conduct disorders, alcohol use, lower academic achievement and lower verbal ability. Moreover, the parents of these children are reluctant to allow their children to engage in any type of mental health treatment.

Children Who Witness Domestic Violence

❖ Every year, 3.3 million children witness assaults against their mothers. For example, in California, it is estimated that 10% - 20% of all family homicides are witnessed by children.

❖ 40% of men who abuse their female partner also abuse their children.

Children as Victims of Crime

❖ Children are more prone than adults to be subject of victimization. For example, the rates of assault, rape and robbery against those 12 to 19 years of age are two to three times higher than for the adult population as a whole.

❖ 30% of children living in medium to high crime neighborhoods have witnessed a shooting, 35% have seen a stabbing and 24% have seen someone murdered.

❖ "Virtually all" of the inner city ethnic minority children who live in the South Central Los Angeles area witness a homicide by age 5. In New Orleans, 90% of fifth grade children witness violence. Fifty percent are victims of some form of violence, and forty percent have seen a dead body.

Children Living in Poverty

❖ 25% of children (some 15 million students) in the U.S. live below the poverty line.

❖ Poverty is a source of ongoing stress and a threat that leads to malnutrition, social deprivation and educational disadvantage. Poverty is associated with an array of problems including low birthweight, infant mortality, contagious diseases, and childhood injury and death. Poor children are at risk for developmental delays in intellectual and school achievement. Sapolsky (2005) has reviewed the literature that indicates in Westernized societies, socioeconomic status (SES) is associated

with varied physical and psychiatric disorders as a result of exposure to chronic stressors.

❖ Children living in poverty are at greater risk than other children for

    a) nutrition-related diseases, chronic illnesses and other infections leading to more frequent school absences

    b) delayed language development

    c) poor school performance

    d) leaving school before completing high school (Doherty, 1997)

❖ The poverty level of the family is correlated with the level of the child achieving academically. Consider the following illustrative findings:

    a) Students from minority families who live in poverty are 3 times more likely than their Caucasian counterparts to be placed in a class for the educably delayed and 3 times more likely to be suspended and expelled.

    b) The overall academic proficiency level of an average 17 year old attending school in a poor urban setting is equivalent to that of a typical 13 year old who attends school in an affluent school area.

    c) Students from families with income below the poverty level are nearly twice as likely to be held back a grade.

    d) The school dropout rate in the U.S. is highly correlated with grade retention. On average, two children in every classroom of 30 students are retained.

    e) The school dropout rate for African American students in the U.S. is 39%; for Mexican American students the dropout rate is 40%.

These statistics take on specific urgency when we consider that 15% of American students are African American and 11% are Hispanic. If present birthrates continue, by the year 2020, minority students will constitute 45% of school-age students in the U.S., up from the current level of 30%.

While any one of these negative factors (such as living in poverty, experiencing abuse and neglect, witnessing violence, or being a victim of violence) constitute high risk for maladaptive adjustment, research indicates that it is **the total number of risk factors** present that is more important than the specificity of the risk factors in influencing developmental outcomes. Risk factors often co-occur and pile up over-time. In addition, different risk factors often predict similar outcomes.

Consider that currently, 25% to 35% of students enter school with factors that are considered to place them at risk of failing socially and academically. Such risk factors include poverty, developmental delays, poor physical and mental health, exposure to biological and psychological trauma, family indifference, neighborhood violence, parents' drug and alcohol abuse and family and parental distress and dysfunction. These findings were highlighted by Arnold Sameroff and his colleagues (1993) who studied the impact of ten high risk factors on the intellectual development of 4 year olds. Those children who had 8 or 9 of the ten risk factors were 30 IQ points below those children who had no high risk factors in their background. The risk factors included the presence of mental illness in the parent, the level of maternal anxiety, parental interactional style and attitudes, occupational level in the household, maternal level of education, disadvantaged minority status, level of family support, degree of stressful life events and family size.

The cumulative impact of these multiple stressors on children was further illustrated by the research of Valerie Edwards and her colleagues at the University of Texas (2005). They developed an interview/questionnaire that assesses the child's exposure to negative Adverse Childhood Experiences (ACE). (See Table of ACE categories). They found that the higher the scores on the ACE, the greater the likelihood of poorer developmental outcomes, as evident in both psychosocial and physiological indices.

TABLE 1
ADVERSE CHILDHOOD EXPERIENCES
ACE QUESTIONS AND RESPONSE CATEGORIES*

ACE Category	Question(s)	Response Options	Criterion for Category
Physical Abuse: Did a parent or other adult in the household;	Push, grab, shove or slap you? Hit you so hard that you had marks or were injured?	Never, once or twice, sometimes, often, very often.	Often and/or Sometimes
Psychological Abuse: Did a parent or other adult in the household;	Swear at, insult, or put you down? Act in a way that made you afraid you would be physically hurt? Threaten to hit you or throw something at you but didn't?	Never, once or twice, sometimes, often, very often.	Often Often Often
Sexual Abuse: Did an adult 5 years older than you:	Touch or fondle you in a sexual way? Have you touch his/her body in a sexual way? Attempt intercourse (oral, vaginal, or anal) with you? Have intercourse (oral vaginal, or anal) with you?	Yes/No	Yes to any question
Witnessing Maternal Battering: Did your father or stepfather or mother's boyfriend ever:	Push, grab, slap or throw something at your mother or stepmother? Kick, bite, hit her with a fist or something hard? Repeatedly hit her over at least a few minutes? Threaten or hurt her with a knife or gin?	Never, once or twice, sometimes, often, very often.	Often and/or Sometimes Once or twice Once or twice
Household Mental Illness: Was/did someone in your household:	Depressed or mentally ill? Attempt suicide?	Yes/No	Yes
Household Substance Abuse: Was someone in your household:	A problem drinker or alcoholic? A person who used street drugs?	Yes/No	Yes
Household Criminal Activity:	Did a household member ever go to prison?	Yes/No	Yes
Parental Divorce or Separation:	Were your parents ever divorced or separated?	Yes/No	Yes

*Edwards, V. J., Anda, R. F., Dube, S. R., Dong, M., Chapman, D. P., & Felitti, V. J. (2005). The wide-ranging health outcomes of adverse childhood experiences. In K. A. Kendall-Tackett and S. M. Giacomoni (Eds.), Child victimization. Kingston, NJ: Civic Research Institute.

NEUROBIOLOGICAL CONSEQUENCES OF CHILDREN BEING EXPOSED TO VICTIMIZATION EXPERIENCES: DEVELOPMENTAL TRAUMATOLOGY

❖ Without getting too technical, it is important for educators to appreciate that children's exposure to traumatic events can <u>alter</u> the <u>early development of children's brains</u> in terms of <u>both</u> structure and function. This can compromise the children's cognitive and emotional development and corporations. For those interested in more details see references by De Bellis 2001, 2002; De Bellis et al. 2005; Lipschitz et al. 1998; Ornitz & Pynoos, 1989; Perry, 1994, 1997; Pynoos et al., 1995; Yehuda, 1999; Van der Kolk, 1997; Vasterling & Brewin, 2005; Weiss et al., 1999.

❖ The earlier the age of onset of trauma such as abuse, the longer the duration of the abuse, and the greater the severity of PTSD and related symptoms, the greater the neuropsychological consequences (e.g., smaller brain volumes, reduced size of the connective tissues between the right and left size of the brain or the corpus callosum), and the greater the stress symptoms present. There is some suggestive evidence of more adverse brain development or maturation in maltreated boys than in abused girls (De Bellis et al., 2005).

❖ Physical abuse and neglect, but not sexual abuse have been associated with the reduction in the volume and activity levels of major structures of the brain, including the corpus callosum (midsagittal area of connective fibers between the left and right hemispheres) and the limbic (emotional regulation) system, including the amygdala and hippocampus.

❖ Trauma has been found to affect the HPA Axis (Hypothalamic Pituitary Axis - adrenal axis) contributing to its hypersensitivity to cortisol and can contribute to an increased vulnerability to depression. The elevated stress response in traumatized children (increased levels of catecholamines and cortisol levels) can affect brain development.

❖ Trauma exposure can contribute to increased sympathetic nervous system activity which is especially evident under conditions of stress (e.g., increased heart rate and increased blood pressure). This may be manifested as exaggerated startle responses.

❖ Among children who have been abused, there is a greater likelihood of cerebral lateralization differences or asynchrony. For example, abused children are seven times more likely to show evidence of left hemisphere deficits. This can contribute to the failure to develop self-regulatory functions, especially language and memory abilities. **Self-regulatory processes** are internalizing organizing functions that filter, coordinate and temporally organize experience. Self-

regulation includes attentional controls, strategic planning, initation and regulation of goal-directed behaviors, self and social monitoring, abstract reasoning, emotional regulation and interpersonal functioning. Trauma has the most impact when its onset occurs during early childhood and is recurrent or prolonged. **Research suggests that there is impaired left hemisphere functioning in traumatized children.**

❖ Trauma exposure results in elevated levels of circulating catecholamines and in abused boys it also results in elevated growth hormone.

❖ Trauma exposure can have a <u>negative impact</u> on the development of <u>attachment behavior</u>. For example, abused teenage girls are more likely to hide their feelings and have extreme emotional reactions. They have fewer adaptive coping strategies which result in problems handling strong emotions, particularly anger. Moreover, they have limited expectations that others can be of help. They show deficits in the ability to self-soothe and modulate negative emotions. They show evidence of problems with behavioral impulsivity, affective lability, and aggression and substance abuse. For example, Kendall et al. (2000) found that in a twin study, the twin who had been exposed to childhood sexual abuse had consistently an elevated risk for drug and alcohol abuse and bulimia, when compared to the unexposed co-twin. Sexual abuse also contributes to increased susceptibility to sexually transmitted disease and can compromise the immune system.

❖ Adverse childhood experiences such as abuse and neglect also increase the risk for adult PTSD and nonpsychiatric illnesses.

❖ In order to compensate for the deficits that arise from multiple victimization experiences and to bolster resilience, special efforts are needed to **bolster** the abused and neglected children's and youths' **self-regulatory systems** and to provide them with **"cognitive and emotional prosthetic devices"** that can help in their development (e.g., metacognitive supports of planning, monitoring, language, memory, as well as social supports).

IMPLICATIONS FOR EDUCATORS

What should educators take away from these findings?

1. Children who are exposed to multiple extreme stressors are likely to: show deficits in neurocognitive development including intellectual impairment, have verbal deficiencies, show evidence of poor school performance and have lower reading ability. They are more likely to show deficits in attention and abstract reasoning/executive functions, and experience short-term memory deficits.

2. Maltreated children require assistance and prosthetic devices in the same way that children who are confined to wheelchairs need prosthetic devices such as ramps or bathroom supports. Maltreated children need such **metacognitive prosthetics** as**:**

   a) shorter instructions and accompanying reminders
   b) teachers who will regularly assess the children's comprehension of the instructions
   c) removal of distractors
   d) structured tasks and more ongoing feedback;
   e) practice in self-regulation activities (goal-setting, planning, self-monitoring, self-rewarding). Teachers need to explicitly teach students Goal – Plan – Do – Check routines;
   f) practice in improving vocabulary and reading comprehension *(See teachsafeschools.org, "How to read stories to children so they improve comprehension.")*
   g) opportunities to develop attachment relationships with supportive others (work on school connectedness and finding adult mentors) *(See teachsafeschools.org, "Mentoring.")*
   h) extensive efforts to provide and engage their parents.

RESEARCH FACTS ABOUT RESILIENCE

Before we consider how some children and families survive, and perhaps even thrive, in spite of adversities, it is useful to consider some of the major research findings in the area. These findings can inform ongoing efforts to bolster resilience in high-risk children.

❖ Resilience appears to be the general rule of adaptation. This conclusion holds whether the children who are studied are the offspring of mentally ill, alcoholic, criminally-involved parents and/or of minority status or have experienced premature birth, physical illness and surgery, maltreatment (abuse/neglect), exposure to marital discord and domestic violence, poverty, and exposure to massive (community level) trauma of war and natural disasters.

❖ Research has indicated that 1/2 to 2/3 of children living in such extreme circumstances grow up and "overcome the odds." They go on to achieve successful and adjusted lives (Bernard, 1995). Several longitudinal studies have tracked high-risk children from birth to adulthood (e.g., Werner & Smith, 1989; 1992; also ***see http://www.kaimb.org/slides/resilience*** for a summary of these longitudinal findings).

For example, Emmy Werner and Ruth Smith (2001) studied children who were born on the Hawaiian island of Kauai, most of whom were descendants of Southeast Asians. One of three children were born with the "odds against them". They were vulnerable due to socioeconomic and family factors (poverty, maltreatment, parental substance abuse and mental illness). In spite of these high-risk factors one child in every three developed into "confident, accomplished and connected adults."

❖ Children may be resilient in one domain in their lives, but not in others (e.g., academic, social, self-regulatory behaviors.) For example, children who appear resilient in one domain such as social competence may have difficulties in other domains. As Zimmerman and Arunkumar (1994) observe:

> ***"Resilience is not a universal construct that applies to all life domains. Children may be resilient to specific risk factors, but quite vulnerable to others. Resilience is a multidimensional phenomenon that is context-specific and involves developmental change." (p. 4)***

❖ Resilience should be viewed as being "fluid over time." The relative importance of risk and protective factors is likely to change at various phases of life. A child who is resilient at one developmental phase may <u>not</u> be necessarily resilient at the next developmental phase. Developmental transition points at school and at puberty are particularly sensitive times for the impact of traumas.

❖ There is no single means of maintaining equilibrium following highly aversive events, but rather there are <u>multiple pathways</u> to resilience.

❖ The factors that contribute to resilience may vary depending upon the nature of the adversity. For example, in children who have been exposed to sexual abuse having an external attribution style (blaming others or circumstances) may be a protective factor, but this style has not proven as effective for individuals with physical abuse or neglect.

❖ Moreover, protective factors may differ across gender, race and cultures. For instance, girls tend to become resilient by building strong, caring relationships, while boys are more likely to build resilience by learning how to use active problem-solving (Bernard, 1995). Further evidence that resilience may yield **gender differences** comes from the research of Werner and Smith (1992). In their longitudinal study of high risk children they found scholastic competence at age 10 was more strongly associated with successful transition to adult responsibilities for men than for women. On the other hand, factors such as high self-esteem, efficacy and a sense of personal control were more predictive of successful adaptation among the women than men. In the stress domain, males were more vulnerable to separation and loss of caregivers in the first decade of life, while girls were more vulnerable to family discord and loss in the second decade. Thus, the factors that influence resilience may differ for males and females.

This research highlights the need to view resiliency as a <u>developmental construct</u> and the value of studying it longitudinally. ***"Resilience is not a trait that a youth is born with or automatically keeps once it is achieved. Resilience is a complex interactive process."*** (Zimmerman & Arunkumar, 1994).

IMPLICATIONS FOR EDUCATORS

What should educators take away from these findings?

1. Interventions to nurture resilience need to target multiple systems since research indicates that the total number of risk factors present is more important than the specificity of the risk factors in influencing developmental outcomes. The multiplicity of risk factors indicates that interventions must address many different levels.

2. The earlier the intervention the greater the likelihood of successful outcomes.

3. Interventions to nurture resilience need to occur on an ongoing basis. There is <u>not</u> a one-time intervention.

4. Such interventions have to be sensitive to developmental, gender and cultural issues. Boys and girls develop differently and have different needs. *(See teachsafeschools.org, "Gender Differences on the Development of Aggressive Behavior.")*

5. There is a need for resilience-based interventions to include parents and communities.

With these findings and observations in mind, let us consider <u>the characteristics of resilient children and youth, families, schools, and communities.</u>

CHARACTERISTICS OF RESILIENT CHILDREN AND YOUTH

"The resilient child is one who 'works well, plays well,
loves well and expects well'." (Bernard, 1997)

- ❖ **Temperament factors** – easy-going disposition, not easily upset; good self-regulation of emotional arousal and impulses and attentional controls
   These critically important temperament features may have genetic roots. Kim-Cohen and colleagues (2004) studied resilience among identical (monozygotic) and fraternal (dizygotic) twins who experienced socioeconomic deprivation. They found that MZ twins were more alike showing evidence of resilience (fewer conduct disorder problems than expected given SES stressors) than in DZ twins (r =.72 MZ vs. .26 DZ twins). Genetic influences explained 71% of variance in resilience. *(See Moffit, 2005 for an excellent discussion of the gene-environment interplay in contributing to resilience.)*

- ❖ **Problem-solving skills** – a higher IQ, abstract thinking, reflectivity, flexibility, and the ability to try alternatives indicate adaptability to stress

- ❖ **Social competence** – emotional responsiveness, flexibility, empathy and caring, communication skills, a sense of humor (including being able to laugh at themselves) and behaviors that increase their ability to get along with others
   Resilient children show a general appealingness and attentiveness toward others and an ability to elicit positive reciprocal responses from others. They are able to monitor their own and others' emotions. They demonstrate bicultural competence –the ability to negotiate the cultural divide.

- ❖ **Autonomy** – self-awareness, sense of identity, ability to act independently, and ability to exert control over the external environment, self-efficacy and an internal locus of control and increased sense of self-worth and mastery

- ❖ **A sense of purpose and a future orientation** – healthy expectations, goal-directedness, future-orientation planning, goal-attaining skills, success orientation, achievement motivation, educational aspirations and persistence; hold religious beliefs that are supported by significant others and that convey a sense of meaning in life (spirituality)

- ❖ **A sense of optimism** – maintain a hopeful outlook and employ active problem-focused coping strategies (avoid seeing crises as an insurmountable problems)

- ❖ **Academic and social successes -** less risk of developing behavioral disorders
   Resilient children demonstrate academic competencies, especially reading comprehension and math skills. They have talents that are valued by self and society.

PROTECTIVE FACTORS FOR FOSTERING RESILIENCE IN CHILDREN AND YOUTH

(Martin & Coatsworth, 1998; Masten & Reed, 2000; Meltzer et al., 2005)

Within the Family

- ❖ a close sustained relationship with at least one caring prosocial and supportive adult who is a positive role model.

  > **The best documented asset of resilience is a strong bond to a competent and caring adult, which need not be a parent. For children who do not have such an adult involved in their life, it is the first order of business … Children also need opportunities to experience success at all ages (Masten & Reed, 2002).**

- ❖ close affective relationship with at least one parent or caregiver – perception of availability and responsiveness of caregivers; strong support systems

- ❖ authoritative parents who are high on warmth and support, but who also provide structure (set firm limits and state clear rules), monitor their child's behavior and peer contacts, and convey high expectations in multiple domains

- ❖ positive family climate with low family discord between parents and between parents and children

- ❖ organized home environment (role of rituals, ceremonies, shared dinner times and mutual responsibilities, cohesive and supportive)

- ❖ a secure emotional base whereby the child feels a sense of belonging and security; access to consistent, warm care givers; a set of supportive caring parents who provide a secure and stable harmonious family environment and that is not overcrowded (small family size)

- ❖ parents are involved in their child's education. Both parents and teachers should convey high, but realistic expectations to their children.

- ❖ socioeconomic advantages

Within Other Relationships: Extrafamilial Factors

❖ close supportive relationship with prosocial and supportive adult models (role of mentors); bond to prosocial adults outside of the family

❖ connections to prosocial and rule-abiding peers who have authoritative parents

❖ support from "kith and kin," access to wider supports such as extended family members and friends

Within the Schools and the Community

❖ a positive "inviting" school climate where there are explicit social norms concerning violence, respect and tolerance

❖ "school connectedness" is the belief by students that adults in their school care about them as students and their learning. School connectedness is related to academic, behavioral and social success in school. A protective factor is attendance in effective schools and being "bonded" to school; for instance, ask students the following question to assess school-bondedness:

> *If you were absent from school, who else, besides your friends would notice that you were missing and would miss you?*

❖ ties to prosocial organizations, including school clubs, scouts, participation in extracurricular activities

❖ neighborhoods with high "collective efficacy," social cohesion and social capital resources

❖ high levels of public safety

❖ good emergency social services (e.g., 911 or crisis services, nursery school services)

❖ good public health and health care availability

❖ opportunities to learn and develop talents

❖ supports derived from cultural and religious traditions

❖ have extended families who nurture a sense of meaning and identity (connected to larger community by having religious, cultural, community ties)

<u>Within other Relationship</u>

❖ close supportive relationships *(See teachsafeschools.org on how to establish a Mentoring Program)*

❖ civic engagement -- Engage with others (classmates, family and community members) in empowering activities such as helping others. For instance, a survey of some 1800 school principals by the National Youth Leadership Council found that schools that use **"service learning"** (some 28% of all school principals surveyed) show evidence of a wide range of benefits for the students, school and community) *(See http://www.nylc.org)*

For example, a study by the Search Institute asked 10,000 young adolescents the following question:

> ***Think about the helpful things you have done in the last month – for which you did not get paid, but which you did because you wanted to be kind to someone else.***

Three quarters of the adolescents spent less than two hours helping others in the previous month; this includes a third of young people in the study who said they had done nothing at all. Only a quarter were involved three or more hours during the previous month. As Brendto et al. (1998, p. 39) observe: ***"Volunteer work is <u>not</u> a major force in the development of responsibility in contemporary youth."***

IMPLICATIONS FOR EDUCATORS

1. Schools need to help students nurture "strengths" (find "buried treasures," develop "pockets of competence" and develop "school connectedness").

2. Introduce and evaluate a school safety program and introduce a bullying prevention program. *(See Link to Bullying)*

3. Introduce an adult mentoring program. *(See Link to Mentoring Program)*

4. Nurture prosocial volunteer activities and prosocial peer contacts.

5. Have an active out-reach program for parent involvement. *(See Link for Parent Involvement)*

WHAT CAN BE DONE TO FOSTER RESILIENCE <u>IN CHILDREN</u> IN THE IMMEDIATE AFTERMATH OF A TRAUMATIC EXPERIENCE?

Sometimes educators are called upon to bolster students' and families' resilience in the immediate aftermath of a traumatic event. There are several recent references that provide useful guidelines as well as helpful websites. In particular, see the website of The National Child Stress Network *www.nctsn.org* and the link in the website to Aftermath of Trauma – Add link). See references by Cohen et al., 2006; Watson, et. al., 2000; Webb, 2006.

Specifically, educators and parents can nurture children's resilience following the aftermath of a disaster by following these guidelines. *(Link to Gurwitch on TSS)*

Following exposure to traumatic events, help children to:

(1)   ensure safety of all involved and keep parents informed;

(2)   minimize exposure;

(3)   resume normal roles and follow predictable routines, thus maintaining a sense of predictability, safety, control and connections;

(4)   minimize and reduce exposure to upsetting media coverage, and process news events with supportive caring adults who can act as models of positive coping;

(5)   engage in "healthy" behaviors (eating, sleeping, and prosocial activities)

(6)   engage in active coping efforts and to <u>not</u> engage in avoidant coping activities such as behavioral disengagement (giving up), dissociating, blaming behavior of self or others, angry ruminative behaviors and substance abuse;

(7)   engage in sharing and helping activities with supportive others;

(8)   have parents who are open to talking with their children about the crisis in reassuring ways without pressuring their children to talk (Parents can use occasional "direct questions" about how their child is doing. Resilient children collaborate in formulating a family <u>safety plan</u> for any possible future crises, and they practice these plans with their parents);

(9)   identify and access social supports (people to turn to in the future);

(10)   use faith-based procedures along with familial and community rituals to memorialize and grieve as a way to find meaning.

For a description of an evidence-based intervention for children who have been exposed to violence see Lise Jaycox (2004) <u>Cognitive behavioral intervention for trauma in school</u> (CBITS). Also, see Stein et al. (2003), Cohen et al. (2006), Weisz et al. (2005).

The CBITS consists of:

a) child group and individual program (ten group sessions and one to three individual sessions);
b) a parent education program (two sessions);
c) a teacher education program (one session).

The CBITS is intended for youth, ages 11-15. In inner city schools, it is estimated that upwards of 20% of students would benefit from the CBITS.

WAYS TO FOSTER RESILIENCE IN CHILDREN AND YOUTH

How Can Social Institutions (Schools, Public Health Departments, Governments, Churches, Families) Nurture Resiliency?

"We now have the knowledge about how to prepare children for school success, yet we have <u>not</u> applied this knowledge to the full benefit of most disadvantaged children." (Ramey & Ramey, 1992, p.13)

❖ Since many high-risk children are born to unwed teenage mothers, there is a need to ensure good prenatal care and then provide proper immunization and ongoing medical check ups.

❖ Throughout the child's development, remove or reduce risk factors (unsafe stressors, exposure to family and urban violence).

❖ Provide quality infancy care such as nutritional programs, home nurse visiting programs and infant stimulation programs. For instance, children who are deprived of touch and opportunities to play develop brains which are 20% - 30% smaller than normal for their age. (Nash, 1997)

❖ Nurture secure attachment relationships between newborns and caretakers which contribute to emotional, social, cognitive and language development.

❖ The need for combining high quality day care with attentive parenting was highlighted by the findings of a longitudinal study on the impact of early child care. The results of the recent National Institute of Child Health and Development (NICHD) longitudinal study of the impact of early child care on child development from birth to 54 months underscore the positive benefits of responsive and stimulating care that can influence cognitive, language, social-emotional and peer outcomes. (NICHD Network, 2006). More specifically, they found that:

   1) the vast majority of the nation's children are in child care outside of the home and most child care is <u>not</u> of high quality; and needs to be improved

   2) the quality of the parenting matters much more than does the nature of the child care in predicting child outcomes

   3) more advantaged families tend to place their children in higher quality care for more hours per week and for a longer period, and provide more positive parenting contributing to more positive cognitive, language and social-emotional development

4) less advantaged families tend to have less sensitive parenting skills and tend to have more maternal depression which impacts on parent-child interactions

5) child care out of the home was related to both stronger cognitive skills and also to more behavior problems (according to teacher ratings with the implication that the amount of time children spend in child care <u>should be</u> reduced)

In terms of <u>nurturing resilience</u> the implications of this research indicates the need to:

a) nurture and train parents to provide warm, sensitive, responsive stimulating interactions

b) introduce home visiting programs that reduce risk factors and nurture growth-facilitating parenting practices (See Breakey & Pratt, 1991; Olds& Kitzman, 1993; Sweet & Applebaum, 2004)

c) train and improve child care workers competencies (e.g., see Shure's 2000. <u>Raising a thinking child program)</u> and offer half-day early education to 2 to 4 year old in order to nurture school readiness skills)

d) introduce policies that reduce the amount of time children spend in child care (e.g., provide parental leaves, support parenting see Alakeson, 2004, Halpern, 2005).

❖ Counteract the negative effects of poverty and disruptive family behaviors such as marital discord, instability, violence, especially for boys who are most vulnerable to these negative influences.

❖ Bolster school readiness skills that include the ability to name letters, the capacity to formulate component sounds within a word, the ability to understand similarities and differences, the ability to remember and recite back pieces of information. By the time children enter school they must be able to follow rules on how and when to talk and where to move (Doherty, 1997).

❖ Of all the readiness skills, the use of language (e.g., size of vocabulary) is most critical. Clapp (1998) observes that children who fail to develop appropriate speech and language in the first years of life are up to six times more likely to experience reading problems in school than those children who show adequate development. The size of a child's vocabulary and IQ are strongly related to that of their parents (Hart & Risley, 1995). They go on to highlight the critical role of these early developmental skills in providing the following sobering observation:

> *"The differences in children by age 4 in amounts of cumulative experiences are so great that even the best of intervention programs could hope only to keep welfare children from falling further behind children in working class families." (Hart & Risley, 1995, pp. 199-200).*

For further documentation of the impact of social class on development (*see Link on vocabulary development.)t* – **Add Link**

❖ Parents and early childhood educators need to promote children's language development and bonding by reading to them from birth and teaching young children multiple ways to communicate nonverbally (e.g., use of sign language, art, music, dance and rhythm, Boyer, 1988). *(See teachsafeschools.org on how to read to children so they improve their vocabulary.)*

PUBLIC SCHOOL YEARS

❖ School readiness at age six predicts a child's ability to benefit from academic instruction in the early years of elementary school (S*ee http://www.voices4children.org/factsheet/readiness.htm*)

❖ As early as grade 3, children who end up dropping out of school are often exhibiting academic problems and low academic achievement (Doherty, 1997).

❖ Provide good integrative schools with higher SES students – increase the likelihood of academic success and provide graduated mastery experiences. *(See Meichenbaum & Biemiller, (1998) How to Nurture Independent Learners)*

❖ Create a motivational climate that fosters "learning for learning's sake" and reduces student competitiveness. Successes should be measured by improvement.

❖ Increase parents' involvement in their children's education.

❖ Improve the quality of attachment relationships. Provide caring and supportive relationships with students.

❖ Bolster students' connectedness to school. Set up smaller schools since school size is associated with the dropout rate.

❖ Promote competencies, coping skills and general life skills. The need to help youth build assets was underscored in research by the Search Institute which has identified some 40 behavioral assets that youth should demonstrate. They identified 20 external and 20 internal behavioral assets. The **external assets** included positive experiences young people receive from the world around them that empower, set boundaries, convey clear expectations about acceptable

behaviors and nurture constructive use of time.

The **internal assets** include social competencies, positive values and identities and commitment to learning. Young people need to experience support, be valued and have opportunities to contribute to others (civic activities), and thus feel empowered.

❖ A Search Institute survey of 200,000 6th to 12th graders found that some 56% of young people experienced 20 or fewer of the 40 internal and external assets These findings highlight the need to help youth build such behavioral assets (Benson, Galbraith & Espeland, 1998).

❖ Use peer-teaching methods. Nurture contact with prosocial peers, and positive adult role models. Help students find social supports. (See Dubois & Karcher, 2005 and *www.TeachSafeSchools.org* for guidance on how to implement mentoring programs.)

❖ Schools should avoid increasing children's exposure to risk (e.g., schools should limit the use of suspension programs, not implement Zero Tolerance policies, nor segregate most troubled students). (See *www.TeachSafeSchools.org* for a discussion of alternatives to suspensions, expulsions and Zero Tolerance programs).

❖ Programs that are broad-based and that promote overall social competencies at an early age across settings offer the best hope of averting youth violence. (Zigler et. al., 1992)

❖ A review of violence prevention programs in the schools (Howard, Flora & Griffin, 1999) concluded that elementary school interventions and programs focusing on the broader school environment were more successful in reducing violent-related behaviors than single modality focused approaches.

❖ Respect and nurture cultural identities by helping children develop links to one or more aspects of their community.

HIGH SCHOOL YEARS

❖ Help students place themselves in "healthy situations" or "ecological niches" that foster resilience with prosocial peers and authoritative mentors.

❖ Help youths identify a "strength" or "buried treasure" that will be a "ticket out of the ghetto or high-risk environment" and help them find a "guardian angel" who can make a difference by providing needed supports.

❖ Provide youth with opportunity to help others in the community

❖ Help youth develop a sense of their people's history and what they did to survive. Honor the past.

❖ Provide youth with "second chance opportunities" by helping them separate from deviant peer groups; engage in athletic, artistic, community activities that provide contact with a prosocial adult mentors and peers; participate in military service, develop a romantic relationship with prosocial partner and participate in religious and cultural activities.

❖ Help students develop a career orientation and job-related interview skills and work habits.

❖ Nurture altruistic behaviors.

CAN RESILIENCE BE LEARNED?

The answer is a resounding **YES**. There are a number of programs designed to develop, nurture and teach resilience skills. For example, the American Psychological Association has developed a training program called the Road to Resilience *(www.apahelpcenter.org or call 800-964-2000)* which trains students to develop resilience or "strengthen the mental muscle that everyone has," using "bounce back" strategies. As noted, these may include: Have a friend and be a friend / Take charge of your behavior / Set new goals and make a plan to reach them / Look on the bright side / Believe in yourself. The following list provides examples of other resilience nurturing programs. See the list of **References** and **Website Links** for illustrative resources and teaching manuals.

LESSONS FOR EDUCATORS

There is hope that children who come from high-risk environments can learn "to beat the odds" with proper help. Educators should actively work to:

1. **reduce risk factors**

2. **screen early to identify high-risk children and intervene**

3. **promote social and academic competencies**

4. **actively promote school connectedness and family involvement**

5. **provide a safe and inviting school environment for <u>all</u> students**

6. **convey high expectations and hope that can nurture resilience in <u>all</u> students**

TABLE 2 provides examples of evidence-based intervention programs that have been found to bolster students' resilience.

TABLE 2

EXAMPLES OF SPECIFIC PROGRAMS DESIGNED TO REDUCE RISK FACTORS AND BOLSTER RESILIENCE

(See Cohen, 1998; Durlak, 1997; Tolan & Dodge, 2005; Weisz et al., 2005)

Prevention programs that promote strengths of children, parents and schools lead to multiple positive outcomes over time. This includes reduced mental health problems, substance abuse and high risk sexual behavior (Weisz et al., 2005, p. 634)

Visiting Nurse Program	Olds et al., 1998
Perry Preschool Project	Schweinhardt, 2000
Headstart preschool programs	Durlak, 1997
Family support services	Yoshikawa, 1995
Parent-child interaction therapy	Eyberg et al., 2001
Prevent negative consequences of divorce in parents and children	Lee et al., 1994
Wrap around services	Eber et al., 1996; Kamradt, 2000
Child abuse prevention programs	Davis & Gidycz, 2000
Promoting school connectedness	McNeeley et al., 2002
School mental health programs	Jennings et al., 2000
Positive behavior support	Horner & Carr, 1997; Sugai et al., 2001
Drug abuse prevention programs and prevention of school dropouts	Tobler & Stratton, 1997
Creating a caring community	Battistich et al., 1996

REFERENCES
RESILIENCE IN CHILDREN

Alakeson, V. (2004). A 2020 vision for early years: Extending choices; improving life chances. London: Social Market Foundation.

American Academy of Child and Adolescent Psychiatry (1998). Practice parameters for the assessment and treatment of children and adolescents with posttraumatic stress disorders. Journal of the American Academy of Child and Adolescent Psychiatry, 37, 997-1001.

Battistich, V., Schaps, E., Watson, M., & Solomon, D. (1996). Preventative effects for the Child Development Project. Journal of Applied Developmental Psychology, 11, 12-35.

Benson, P. L., Galbraith, J., & Espeland, P. (1995). What kids need to succeed. Minneapolis, MN: Free Spirit.

Benson, P. L., Scales, P. C., Leffert, N., & Roehlkepartan, E. C. (1999). A fragile foundation: The state of developmental assets among American youth. Search Institute (ISBN 1-57482-352-3)

Berman, S. L., Kurtines, W. M., Silverman, W. K., & Serafini, L. T. (1996). The impact of exposure to crime and violence on urban youth. American Journal of Orthopsychiatry, 66, 329-336.

Bernard, B. (1995). Fostering resiliency in kids: Protective factors in the family, school and community. San Francisco: Far West Laboratory for Educational Research and Development.

Bernard, B. (1999). Applications of resilience: Possibilities and promise. In M. D. Glantz & J. L. Johnson (Eds.), Resilience and development: Positive life adaptations. (pp. 259-268). New York: Kluver Academic/Plenum.

Bernard, B., Burgoa, C., & Whealdon, K. (1994). Fostering resiliency in kids: Protective factors in school. San Francisco: Far West Laboratory.

Bernstein, N. (2001). The Last children of Wilder: The epic struggle to change foster core. New York: Pantheon Books.

Bonanno, G. A. (2004). Loss, trauma and human resilience. American Psychologist, 59, 20-28.

Breakey, G., & Pratt, B (1991). Healthy growth for Hawaii's "Healthy Start': Toward a systematic statewide approach to the prevention of child abuse and neglect. Zero to Three, 11, 16-22.

Brendto, L. K., Brokenleg, M., & Van Bockern,, S. (1992). Reclaiming youth at risk: Our hope for the future. Bloomington, IN: Educational Services.

Brooks, R., & Goldstein, S. (2001). The power of resilience. New York: McGraw Hill.

Cohen, J.A., Mannarino, A.P., & Deblinger, E. (2006). Treating trauma and traumatic grief in children and adolescents. New York: Guilford Press.

Cohen, J.A., Mannarino, A.P., Giboon, L.E., Cozza. S.J., Brymer, M.J., & Murray, L. (2006). Interventions for children and adolescents following disasters. In E.C. Ritchie, P.J. Watson, and M.J. Friedman (Eds.), Interventions following mass violence and disasters. (pp. 227-256). New York: Guilford Press.

Cohen, M. A. (1998). The monetary value of saving a high-risk youth. Journal of Quantitative Criminology, 14, 5-33.

Cohen, M. A. (1998). The monetary value of saving a high-risk youth. Journal of Quantitative Criminology, 14, 5-33.

Cowan, E. L. (2000). Psychological wellness: Some hopes for the future. In D. Cicchetti, J. Rappaport, I. Sandler, & R. P. Weissberg (Eds.), The promotion of wellness in adolescents. (pp. 477-503). Washington, DC: Child Welfare League of America Press.

Cowen, E. L. (1991). The pursuit of wellness. American Psychologist, 46, 404-408.

Dahwan, A., Duwyn, M., Meichenbaum, L., & Smith, S. (2004). Imagine a world free from fear. Toronto, Ontario: Elementary Teachers.

Davis, M. K., & Gidycz, C. A. (2000). Child sexual abuse prevention programs: A meta-analysis. Journal of Clinical Child Psychology, 29, 257-265.

De Bellis, M. D., (2001). Developmental traumatology Development and Psychopathology, 13, 537-561.

De Bellis, M. D. (2002). Developmental traumatology. Psychoneuroendocrinology, 27, 155-170.

De Bellis, M. D., Hooper, S.R. & Sapia, J.L. (2005). Early trauma exposure and the brain. In J.J. Vasterling & C.H. Brewin (Eds.), Neuropsychology of PTSD: Biological, cognitive and clinical perspectives. (pp. 153-177). New York: Guilford Press.

De Bellis, M. D., Keshavian, M. S. et al. (1999). Developmental traumatology: Brain development. Biological Psychiatry, 45, 1271-1284.

Doll, B., & Lyon, M. A. (1998). Risk and resilience: Implications for delivery of educational and mental health services in schools. School Psychology Review, 27, 348-363.

Dubois, D. L., & Karcher, M. J. (Eds.). (2005). Handbook of youth mentoring. Thousand Oaks, CA: sage Publications.

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

Eber, L., Osuch, R., & Reddott, C. (1996). School-based application of the wraparound process: Early results in service provision and student outcomes. Journal of Child and Family Studies, 5, 83-99.

Edwards, V. J., Anda, R. F., Dube, S. R., Dong, M., Chapman, D. P., & Felitti, V. J. (2005). The wide-ranging health outcomes of Adverse Childhood Experiences. In K. A. Kendall-Tackett & S. M. Giaromoni (Eds.), Child victimization. (pp. 8-1 – 8-12). Kingston, NJ: Civic Research Institute.

Ennett, C. T., Ringwalt, C. L. et al. (2003). A comparison of current practice in school-based substance use prevention programs with meta-analysis findings. Prevention Science, 4, 1-14.

Eyberg, S., Funderbank, B., et al. (2001). Parent-child interaction therapy: One and two year maintenance of treatment effects in the family. Child and Family Behavior Therapy, 23, 1-20.

Fraser, M. W. (Ed.) (2004). Risk and resilience in childhood: An ecological perspective. (2nd Ed.). NASW Press.

Garmezy, N. (1993). Children in poverty: Resilience despite risk. Psychiatry, 56, 127-136.

Glantz, M. D., & Johnson, J. L. (1999). Resilience and development: Positive life adaptations. New York: Kluver/Plenum Publishers.

Goldstein, S., & Brooks, R. (Eds.). (2005). Handbook of resilience in children. New York: Kluver Academic Press.

Haggerty, J., Sherrod, L., Garmezy, N., & Rutter, M. (1996). Stress, risk and resilience in children and adolescents. New York: Cambridge University Press.

Halpern, D.F. (2005). Psychology at the intersection of work and the family: Recommendations for employers, working families and policy makers. American Psychologist, 60, 397-409.

Hawkins, J. D., Catalano, R. F., Kosterman, R., Abbott, R., & Hill, K. G. (1999). Preventing adolescent high-risk behavior by strengthening protection during childhood. Archives of Pediatrics and Adolescent Medium, 153-226-234.

Henderson, N., & Milstein, M. M. (1996). Resiliency in schools: Making it happen for students and educators. Thousand Oaks, CA: Corwin Press.

Hill, H. M., & Madhere, S. (1990). Exposure to community violence and African-American children: A multidimensional model of risk and resources. American Journal of Community Psychology, 24, 26-43.

Horner, R. H., & Carr, E. P. (1992). Behavioral support for students with severe disabilities: Functional assessment and comprehensive interventions. Journal of Special Education, 31, 84-104.

Howard, K.A., Flora, J., & Griffin, M. (1999). Violence prevention programs in schools: stated of the science and implications for future research. Applied and Preventive Psychology, 8, 197-215.

Huang, J., Strand, B., Friedman, R., et al. (2005). Transforming mental health care for children and their families. American Psychologist, 60, 615-627.

Jaycox, L. (2004). Cognitive-behavioral intervention for trauma in schools. Longmont, CO: Sopris West Educational Service.

Jennings, J., Pearson, G., & Harris, M. (2000). Implementing and maintaining school-based mental health services in a large urban school district. Journal of School Health, 70, 201-205.

Joseph, J., (1994). The resilient child. New York: Plenum Press.

Kamradt, B. J. (2000). Wraparound Milwaukee: Aiding youth with mental health needs. Juvenile Justice Journal, 7, 19-26.

Karoly, L. A., Everingham, S. S., et al. (2002). Benefits and costs of early childhood interventions: A documented briefing. Santa Monica, CA: Rand.

Kendler, K. S., Bulik, C. M., et al. (2000). Childhood sexual abuse and adult psychiatric and substance abuse disorders in women: An epidemiological and co-twin control analysis. Archives of General Psychiatry, 57, 953-959.

Kim-Cohen, J., Moffit, T. E., Caspi, T., & Taylor, A. (2004). Genetic and environmental processes in young twins' resilience and vulnerability to socioeconomic deprivation. Child Development, 75, 651-668.

Kinard, E. M. (1998). Methodological issues in assessing resilience in maltreated children. Child Abuse and Neglect, 22, 669-680.

Koonen, K.C., Moffitt, T.E., & Caspi, S., Taylor, A., & Purcell, S., (2003). Domestic violence is associated with environmental suppression in young children. Development and Psychopathology, 15, 297-311.

Lee, C. M., Picard, M., & Blain, M. D. (1994). A methodological and substantive review of intervention outcome studies for families undergoing divorce. Journal of Family Psychology, 8, 3-15.

Lefkowitz, B. (1987). Tough change: Growing up on your own in America. New York: Doubleday.

Luthar, S. S. (Ed.). (2003). Resilience and vulnerability: Adaptation in the context of childhood adversities. New York: Cambridge University Press.

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.

Luthar, S. S., Doernberger, C. H., & Zigler, E. (1993). Resilience is not a unidimensional construct: Insights from a prospective study of inner-city adolescents. Development and Psychopathology, 5, 703-717.

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. American Psychologist, 56, 227-238.

Masten, A. S. (2004). Regulatory processes, risk and resilience in adolescent development. Annals of the New York Academy of Sciences, 1021, 310-319. (Available online at annalsnyas.org)

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

Masten, A. S., & Reed, M. G. (2002). Resilience in development. In S. R. Snyder & S. J. Lopez (Eds.), The handbook of positive psychology. Oxford, England: Oxford University Press.

McLaughlin, M. Irby, M., Langman, J. (1994). Urban sanctuaries: Neighborhood organizations in the lives and futures of inner-city youth. San Francisco: Jossey-Bass.

McNeeley, C. A., Nonnemaken, J. M., & Blum, R. (2002). Promoting school connectedness: Evidence from the National Longitudinal Study of Adolescent Health. Journal of School Health, 72, 738-746.

Meichenbaum, D. & Biemiller, A., (1998). Nurturing independent learners: Helping students take charge of their learning. Cambridge, MA: Brookline Books.

Meltzer, M. L., Marquart, J. W., & Mullings, J. L. (2005). "Going to the other side." – An analysis of resilience among institutionalized youth. In K. A. Kendall-Tackett & S. M. Giacomoni (Eds.), Child victimization. Kingston, NJ: Civic Research Institute.

Mendler, A.N. (2000). Motivating students who don't care: Successful techniques for educators. Bloomington, IN: National Education Services.

Merrell, K. W. (2001). Helping students overcome depression and anxiety: A practical guide. New York: Guilford Press.

Merrell, K. W. (2003). Behavioral, social and emotional assessment of children and adolescents. (2nd ed.). Mahwah, NJ: Erlbaum.

Miller, A. (1990). The untouched key: Tracing childhood in creativity and destructiveness. New York: Anchor/Doubleday.

Mills, R. (1993). The Health Realization Model: A community empowerment primer. Alhambra: California School of Professional Psychology.

Moffitt, T. E. (2005). The new look of behavioral genetics in developmental psychopathology: Gene-environment interplay in antisocial behaviors. Psychological Bulletin, 131, 533-554.

Neimeyer, R. A. (2000). Searching for meaning of meaning: Grief therapy and the process of reconstruction. Death Studies, 24, 541-558.

Newcomb, M. D., & Felix-Ortz, M. (1992). Multiple protective and risk factors for drug use and abuse: Cross-sectional and prospective findings. Journal of Personality and Social Psychology, 63, 280-296.

NICHD Early Child Care Research Network, (2006). Child-care effect sizes for the NICHD study of Early Child Care and Youth Development. <u>American Psychologist</u>, <u>61</u>, 99-116.

Olds, D.L. & Kitzman, H. (1993). Review of research on home visiting for pregnant women and parents of young children. <u>The Future of Children</u>, <u>3</u>, 53-92.

Perry, B. (2006). Applying principles of neurodevelopment to clinical work with maltreated and traumatized children: The Neurosequential Model of Therapeutics. In N.B. Webb (Ed). <u>Working with traumatized youth in child welfare</u>. (pp. 27-52). New York: Guilford Press.

Peters, R. D., Leadbeater, B., & McMahon, R. J. (Eds.). (2005). <u>Resilience in children, families and communities: Linking context to practice and policy</u>. New York: Kluver Academic/Plenum.

Polakow, V. (1993). <u>Lives on the edge: Single mothers and their children in the other America</u>. Chicago: University of Chicago Press.

Reivich, K., & Shatte, A. (2002). <u>The resilience factor: 7 essential skills for overcoming life's inevitable obstacles</u>. New York: Brookline Books.

Ritchie, E.C., Watson, P.J., & Friedman, M.J. (Eds.), (2006). <u>Interventions following mass violence and disasters: Strategies for Mental Health Practice</u>. New York: Guilford Press.

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

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

Rutter, M. B., Maughan, P., Mortimore, J., Ouston, J., & Smith, A. (1979). <u>Fifteen thousand hours</u>. Cambridge, MA: Harvard University Press.

Sameroff, A. J., Seifer, R. Baldwin, A., & Baldwin, C. (1993). Stability of intelligence from preschool to adolescence: The influence of social and family risk factors. <u>Child Development</u>, <u>64</u>, 80-97.

Sapolsky, R. (2005). Sick of poverty. <u>Scientific American</u>, <u>293</u>, 92-99.

Saywitz, K. & Nabors, L. (2005). Crisis in children's mental health care: A well kept secret. <u>The Clinical Psychologist</u>, <u>58</u>, 28-29.

Scales, P., & Liffert, N. (1999). <u>Developmental assets</u>. Minneapolis: Search Institute.

Schare, A.N. (2003). Early relational trauma, disorganized attachment and the development of a predisposition to violence. In M.F. Solomon, & D.J. Siegel (Eds.), <u>Healing trauma: Attachment, mind, body and brain</u> (pp. 107-167). New York: Norton.

Schorr, L. (1998). <u>Within our reach: Breaking the cycle of disadvantage</u>. New York: Doubleday.

Shure, M.B. (2000). Raising a Thinking child Workbook. Champagne, IL: Research Press. (See ***www.thinkingchild.com***)

Smith, C., & Carlson, B. (1997). Stress, coping and resilience in children and youth. <u>Social Science Review</u>, <u>71</u>, 231-256.

Spaccarelli, S., & Kim, S. (1995). Resilience criteria and factors associated with resilience in sexually abused girls. <u>Child Abuse and Neglect</u>, <u>19</u>, 1171-1182.

Stein, B. D., Jaycox, R. H., Kataoka, S. H., Wong, M., Tu, W., Elliott, M. N., & Fink, A. (2003). A mental health intervention for school children exposed to violence: A randomized control trial. <u>Journal of the American Medical Association</u>, <u>290(5)</u>, 603-611.

Sugai, R., Ringel, J., Bao, C., et al. (2000). Applying positive behavior support and functional assessment in schools., <u>Journal of Positive Behavioral Interventions</u>, <u>2</u>, 131-143.

Sweet, M.A. & Applebaum, M.I. (2004). Is home visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. <u>Child Development</u>, <u>75</u>, 1435-1456.

Tobler, N. S., & Stratton, H. H. (1997). Effectiveness of school-based drug prevention programs: A meta-analysis of the research. <u>Journal of Primary Prevention</u>, <u>18</u>, 71-128.

Tolan, P. H., & Dodge, K. A. (2005). Children's mental health as a primary care and concern: A system for comprehensive support and service. <u>American Psychologist</u>, <u>60</u>, 601-614.

U.S. Department of Health and Human Services (DHHS). <u>National clearinghouse on child abuse and neglect information: Statistics</u>. ***(http://nccanch.acf.hhs.gov)***

Van Horn, P. & Liebermen, A. (2004). Early intervention with infants, toddlers and preschoolers. In B.T. Litz (Ed.), <u>Early intervention for trauma and traumatic loss.</u> (pp. 112-130). New York: Guilford Press.

Vasterling, J.J. & Brewin, E.R. (Eds.), (2005). <u>Neuropsychology of PTSD</u>. New York: Guilford Press.

Watson, P.J., Ritchie, E.C., Demer, J., Bartone, P., & Pfefferbaum, B.J. (2006). Improving resilience trajectories following mass violence and disaster. In E.C. Ritchie, P.J. Watson and M.J. Friedman (Eds.) <u>Interventions following mass violence and disaster</u>. (pp. 37-53). New York: Guildford.

Webb, N.B. (Ed.), (2006). <u>Working with traumatized youth on child welfare.</u> New York: Guilford Press.

Webb, N.B. (Eds.), (2006). <u>Mass trauma and violence: Helping families and children cope</u>. New York: Guilford Press.

Weisz, J. R., Sandler, I. N., Durlak, J. A., & Anton, B. S. (2005). Promoting and protecting youth mental health through evidence-based prevention and treatment. <u>American Psychologist</u>, <u>60</u>, 628-648. ***(www.nasmhpd.org National Association of State Health Mental Programs)***

Werner, E. E. (1995). Resilience in development. <u>Current Directions in Psychological Science</u>, <u>4</u>, 81-85.

Werner, E. E., & Johnson, J. L. (1995). Can we apply resilience? In M. D. Glantz & J. L. Johnson (Eds.), <u>Resilience and development: Positive life adaptations</u>. (pp. 259-268). New York: Kluver/Plenum Publishers.

Werner, E. E., & Smith, R. (1989). <u>Vulnerable, but invincible: A longitudinal study of resilient children and youths</u>. New York: Adams, Bannister and Cox.

Werner, E. E., & Smith, R. (1992). <u>Overcoming the odds: High-risk children from birth to adulthood</u>. New York: Cornell University Press.

Werner, E., & Smith, R. (2001). <u>Journeys from childhood to midlife: Risk, resilience, and recovery</u>. Ithaca, NY: Cornell University Press.

Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. <u>Journal of Consulting and Clinical Psychology</u>, <u>57</u>, 349-357.

Zigler, E., Taussig, C. & Black, K. (1992). Early childhood intervention: a promising preventative for juvenile delinquency. <u>American Psychologist</u>, <u>47</u>, 997-1006.

Zimmerman, M. A., & Arunkumar, R. (1994). Resiliency research: Implications for schools and policy. <u>Social Policy Report of the SRCD</u>, <u>8</u>, 1-17.

WEBSITES ON RESILIENCE

American Psychological Association
   http://www.apahelpcenter.org/

Centre for Children and Families in the Justice System
   www.lfcc.on.ca

Community Tool Box
   www.*ctb.ku.edu*

Foundation for Community Encouragement
   www.fce-community.org

National Child Traumatic Stress Network
   www.nctsn.org

Search Institute
   www.search-institute.org

Task Force on Psychology's Agenda for Child and Adolescent Mental Health, 2004
   http://www.apa.org/pi/cyf/child_adoles_mentalhealth_report.pdf

U.S. Surgeon General's Conference on Children's Mental Health, 2000
   http://www.surgeongeneral.gov/topics/cmh/childreport.htm