Resilience in the face of adversities

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Since the 1970s, developmental science has seen incremental increases in research on the construct of resilience: *a dynamic process reflecting positive child adjustment despite significant risk* or adversity (Garmezy,1971; Luthar & Zigler, 1991; Masten, Best, & Garmezy, 1990; Rutter, 1987; Werner & Smith, 1982; 1992). The last two decades alone have witnessed an eight-fold increase in references to resilience in the scholarly literature (Ager, 2013), testifying to its salience in developmental science.

The objectives underlying this chapter are to describe the major developments in the field of resilience across the span of almost six decades. The chapter is organized in four sections, the first one presenting a brief history of work on resilience. In the second section, we describe critical features of research on this construct, highlighting three sets of issues: definitions of major terms (risk, competence, protective and vulnerability factors); distinctions between resilience and related constructs such as competence and ego-resiliency; and statistical approaches used to illuminate major risk-modifiers.

In the third section of the chapter, we describe major research findings on vulnerability and protective factors across different at-risk populations. These are discussed in terms of the specific factors found to modify risk within three broad categories, that is, attributes of the family, community, and child. The fourth and final section includes major considerations for future work on resilience among at-risk children and families, including directions for both research and interventions.

Historical Overview of Childhood Resilience Research

The roots of resilience research can be traced back to the 1970s, with pioneering research on positive adaptation among children of schizophrenics. Whereas these children as a group are at high risk for psychopathology, Norman Garmezy, Michael Rutter, along with E. James Anthony and Cyrille Koupernik, found that a subset of them manifested surprisingly healthy adjustment (for a fuller description of these early studies and citations, please see Luthar & Zigler, 1991; Masten et al., 1990). Their scientific focus on the positive outcomes of these children reflected a substantive departure from the illness-based medical models of the time.

Shortly after, Emmy Werner published the first of many reports on a cohort born in Hawaii (Werner & Smith, 1982, 1992), and the 1980s and early 1990s marked substantive changes in conceptualizations of resilience, two of which were especially salient. The first concerned perspectives on the roots of resilience. In early studies, the focus was largely on positive personal qualities of manifestly resilient children, such as autonomy or charisma. As work in the area evolved, however, scientists noted that resilient adaptation often could stem from forces external to the child. Thus, three sets of factors came to be commonly cited as implicated in resilience: attributes of the children themselves, characteristics of their families, and influences from their wider social environments (Garmezy & Masten, 1986; Rutter, 1987; Werner & Smith, 1982).

The second change involved acknowledgement that resilience fluctuates over time, as opposed to being fixed. In some early writings, terms such as "invulnerable" were used for children who functioned well in spite of multiple risks. Recognizing that this risk-evasion was not absolute and unchanging, researchers began to use the more qualified term "resilience" instead. Implicit in this change of labels was cognizance that positive adaptation despite adversity is never permanent; rather, it is a developmental progression, with new strengths and vulnerabilities emerging with shifting life circumstances (Garmezy & Masten, 1986; Werner & Smith, 1992).

A related qualifier was explicit recognition that resilience is never an across-the-board phenomenon, with uniformly positive adjustment across diverse domains. Just as children in general do not manifest consistently positive (or negative) adaptation across different spheres of adjustment, it was clear that at-risk children, too, could display remarkable strengths in some areas while showing significant deficits in others (Luthar, Doernberger, & Zigler, 1993). Most importantly, children under stress could appear resilient in terms of their behaviors while still experiencing considerable covert distress in the form of depression or anxiety (Farber & Egeland, 1987; Luthar, 1991). Recognizing such variability in adjustment levels across domains, researchers now tend to use more specific terms that indicate the domains of manifest resilience, referring, for example, to academic resilience (Obradović et al., 2009), emotional resilience (Jain, Buka, Subramanian, & Molnar, 2012), or external (behavioral) resilience (Yates & Grey, 2012).

Research on resilience: Central Constructs

Recent reviews of research on resilience reflect converging definitions of the core constructs within this area (see Cicchetti, 2013; Luthar, Cicchetti, & Becker, 2000; Masten & Narayan, 2012; Rutter, 2012; Ungar, Ghazinour & Richter, 2013; Vanderbilt-Adriance & Shaw, 2008): Resilience, adversity, and positive adaptation. As noted at the outset of this chapter, resilience is a phenomenon or process reflecting relatively positive adaptation despite significant adversity or trauma. Because it is a superordinate construct subsuming two distinct dimensions—*adversity* and *positive adaptation*—resilience is never directly measured, but instead is indirectly inferred based on evidence of the two subsumed constructs.

Adversity, in developmental science research on resilience, is defined in terms of statistical probabilities: A high-risk condition is one that carries high odds for measured maladjustment in critical domains. Exposure to maternal depression or community violence, for example, constitutes high risk because children experiencing each of these manifest significantly greater maladjustment than those who do not. Aside from discrete risk dimensions such as parent psychopathology, researchers have also examined composites of multiple risk indices, such as parents' low income and education, histories of mental illness, and disorganization in neighborhoods (Sameroff, Seifer, Zax, & Barocas, 1987). When risks such as these coexist (as they often do, in the real world), effects tend to be synergistic, with child outcomes being far poorer than when any of these risks exists in isolation.

Positive adaptation, the second component in the construct of resilience, refers to adjustment that is much better than what would be expected, given exposure to the risk condition under study. In studies of resilience in childhood, this construct is most commonly operationalized in terms of behaviorally manifested social competence, or success at meeting stage-salient developmental tasks (Luthar, 2006; Masten & Tellegen, 2012). To illustrate, competence is often operationally defined in terms of observed secure attachment behaviors among young children, and in terms of positive relationships with peers and teachers, as well as good academic grades, among older children and adolescents.

In addition to being developmentally appropriate, indicators used to operationalize "positive adaptation" must be of high conceptual relevance to the particular risk condition examined, in terms of both domains assessed, and stringency of criteria used. When communities carry many risks for antisocial problems, for example, it is logical to assess children's maintenance of socially conforming behaviors (Jain et al., 2012), whereas among offspring of depressed parents, the absence of depressive problems would be of special significance (Beardslee, Gladstone, & O'Connor, 2012). With regard to stringency of criteria, similarly, decisions must depend on the seriousness of the risks being studied. In research on children facing major traumas, it is appropriate to define risk-evasion in terms of the absence of serious psychopathology rather than excellence in everyday adaptation (Luthar et al., 2000; Rutter, 2012). Finally, positive child adaptation must be considered across multiple adjustment spheres; overly narrow foci on particular behaviors can be misleading in suggesting that risk-evasion has in fact occurred.

In some instances, competence is sometimes most appropriately operationalized in terms of better-than-expected functioning of families or communities, rather than of the children themselves. Toddlers, for example, are still too young to be judged as reliably manifesting resilience because their functioning is largely regulated by caregivers; it makes more sense, therefore, to operationalize positive adjustment in terms of the parent-child dyad or family unit. In parallel, the label of 'resilience' can be most appropriate for communities of at-risk youth who are functioning well. To illustrate, some low-income urban neighborhoods reflect far higher levels of organization, cohesiveness, and social efficacy than do others (Jain et al., 2012), with the potential, therefore, to minimize the negative effects of poverty on children.

Given that positive adaptation fluctuates over time rather than being immutably fixed, an important area of resilience research concerns those who "bounce back" from earlier dysfunction. Long-term prospective studies have been invaluable in identifying critical turning points not just in childhood and adolescence, but also later in adulthood, illuminating instances where negative adjustment trajectories were transformed into positive, healthy ones (Hauser, Allen, & Golden, 2006; Laub & Sampson, 2003;

Vaillant, 2012; Werner & Smith, 1992).

Competence and ego-resiliency are two constructs that are each related to resilience, but differ in substantive ways. Competence and resilience both represent positive adaptation, but there are four major differences. First, resilience presupposes risk but competence does not. Second, resilience encompasses both positive and negative adjustment indices (presence of health and absence of disorder), whereas competence reflects the former. Third, resilient adaptation is defined in terms of both behavioral and emotional indices, whereas competence typically involves only manifest, observable behaviors. Finally, resilience is a superordinate construct that subsumes dimensions of competence (along with exposure to risk).

Ego resiliency is a personal trait reflecting general resourcefulness, sturdiness of character, and flexibility in response to environmental circumstances (Block & Block, 1980); like resilience, this involves positive adaptation. Differences are that (a) only resilience presupposes conditions of adversity and (b) resilience is not a personality trait, but is a process or phenomenon. Finally, just as competence is subsumed within the definition of resilience, ego-resiliency is among the personal attributes that can foster resilient adaptation, mitigating the negative effects of stressful life experiences (e.g., Cicchetti & Rogosch, 2007).

It is critical that scientists proactively guard against suggestions that resilience is a personal trait, as this can foster perspectives that blame the victim (Luthar & Brown, 2007; Ungar, 2013). Toward this end, several precautions have been noted (Luthar et al., 2000). Most importantly, all reports must include clear definitions of resilience, unequivocally clarifying that this refers to a process or phenomenon and *not* a trait. Second, it is preferable to avoid using the term *resiliency*, which carries the connotation of a personal attribute even more so than does *resilience*. Furthermore, it is best to avoid using the term resilient as an adjective for children and apply it instead to trajectories or profiles, because phrases such as "resilient adaptation" carry no implication of who (the child or others) might be responsible for manifest risk-evasion.

Vulnerability and Protective Processes: Operationalization and Measurement

The central objective of resilience researchers is to identify *vulnerability* and *protective factors* that might *modify* the negative effects of adverse life circumstances, and then, to identify *mechanisms* or *processes* that might underlie associations found. Vulnerability factors or markers are indices that exacerbate the negative effects of the adverse condition (e.g., poverty) on children, such as parent mental illness or alienation from peers. Promotive or protective factors are assets that modify the effects of risk in a positive direction, such as support from informal mentors, and good coping skills.

Quantitative studies of resilience have entailed two major statistical approaches in identifying protective or vulnerability factors (risk-modifiers), that is, variable-based and person-based analyses. Variable-based analyses such as multivariate regressions allow researchers to look at how adjustment is predicted by continuous scales of risk-modifiers and risk indices, examining how the former are directly related to outcomes (as main effects), and in interaction effects with the latter. An early illustration of this variable-based approach was the ground-breaking paper by Garmezy, Masten, and Tellegen (1984), in which high IQ was shown to be protective: Intelligent children seemed to be far less affected by increasing levels of life stress than did their low IQ counterparts. Person-based analyses in resilience research, by contrast, involve comparisons between groups categorized according to their risk exposure and adjustment profiles. For example, comparisons of two groups of risk-exposed youth, manifesting positive and negative adjustment respectively, can illuminate critical factors that protect against adversity.

In variable and person-based analyses, a hallmark of the current generation of resilience research is attention to underlying processes; this is essential for guiding effective interventions. In working with at-risk groups of children, it is far more prudent to promote positive adjustment early in development than to treat disorders after they have already crystallized, and knowledge of processes potent in specific at-risk circumstances can be critical in pinpointing issues that most urgently warrant attention. To illustrate, maternal depression can affect children through various environmental processes including high family conflict, children's modeling of ineffective coping styles, and negative parenting behaviors ranging from inattentiveness to enmeshment (Valdez, Mills, Barrueco, Leis, & Riley, 2011). With regard to protective

processes, similarly, supportive relationships with caregivers can benefit children through multiple pathways, including feelings of being cherished as an individual and a strong set of personal values (Werner & Smith, 1992).

Interpreting Findings: Main effects and Interaction Terms.   In variable-based analyses, a complication with interpretation has to do with whether significant main effect associations imply that low levels of the hypothesized asset imply unusually poor adjustment, that high levels imply excellence in functioning, or both. There are, admittedly, a few "pure" vulnerability indices that can only create disorder when present but not excellence when absent, such as child maltreatment, whereas others can be beneficial when present without conferring vulnerability when absent, such as artistic or musical talents. Many, if not most, indices, however, are bipolar in nature, with the potential for effects at both extremes. For example, a significant main effect involving social skills could imply either that high levels lead to exceptional competence (protection), or that low levels lead children to unusual maladjustment (vulnerability).

Although researchers have often used these terms interchangeably, choosing somewhat arbitrarily between labels of vulnerability or protection for such "bipolar" variables, it can be useful to examine the distribution of scores to guide choices in this regard (cf., Luthar & Latendresse, 2005). To continue with the same example, this could be done by demarcating, for interpretive purposes, groups that are high and low on social skills (e.g., defined by the top and bottom tertiles). Depending on the degree to which the mean competence scores of these two groups each deviate from the sample mean, this could illuminate whether low social skills connoted significant vulnerability (with competence scores much poorer than average), or whether high social skills reflected protection (competence well above the sample average). A more statistically sophisticated method to address issues such as this has recently been elucidated by Roisman and colleagues (2012). These authors suggest that researchers apply a Regions of Significance (RoS) test (Dearing & Hamilton, 2006) to determine if Y (the outcome variable) and Z (the risk-modifier) are correlated both at the high and low ends of the distribution of X (levels of stress), bounded by a conventional range of interest that is +2 standard deviations from the mean of X.

While there has been some lack of clarity about main effect findings, there has, historically, been more confusion about interaction effects, wherein, for example, the presence of a particular attribute (e.g., peer support) conferred stable, adaptive functioning despite increasing stress, whereas low levels of this variable connoted maladjustment. In the 1980's and 1990's, such interaction effects were viewed as being at the crux of research on resilience, sometimes emphasized as more important for inferring protection than were direct, main effects (see Luthar et al., 2000).

At this time, however, there is consensus that researchers are centrally concerned with illuminating constructs that distinguish between well- and poorly functioning youth *within* a given risk condition, and with substantial effect sizes (what occurs in the absence of risk is not of central concern). Interaction terms typically have very small effect sizes and thus are notoriously unstable, and when researchers include multiple interaction terms in predictive models, this can greatly constrain the detection of potentially important *main effect* links, due to a loss of degrees of freedom in statistical models (Luthar et al., 2000).

Vulnerability and Protective Processes: Summarizing Extant Evidence

This section of the chapter encompasses major findings from over sixty years of research on resilience. While describing the forces that modify effects of high-risk life circumstances, we discuss the categories of risk-modifiers in order of relative salience in conferring positive adaptation despite risk exposure. Resilience researchers have been criticized for producing lists of sundry protective and vulnerability factors (see Luthar et al., 2000); such lists are of limited practical value because all items (ranging from parents' intelligence, to neighborhood safety, to children's social skills) can never be addressed in a given intervention. From a pragmatic standpoint, therefore, what is needed is conceptual prioritization of domains in terms of overall likelihood of yielding substantial benefits.

Accordingly, organization of this section is based on the following considerations. In general, primacy in discussions is given to the most *influential* risk-modifiers, that is, those whose effects are relatively enduring, robust, or hard to overcome by others. Second, more emphasis is placed on

"*modifiable modifiers*". Whereas personal characteristics like gender or race certainly can affect outcomes, these are afforded less prominence than are those that are more amenable to change, such as parental discipline or teacher support. Third, we prioritize constructs that are *broadly deterministic*, that is, those with high potential to generate other assets (or vulnerabilities, as the case may be), in what Rutter (1987) called "chain reactions".

With these considerations in mind, our discussions focus, in sequence, on vulnerability and protective forces in the domains of the family, the community, and the children themselves (cf., Luthar, 2006). The family is not only the most proximal of children's external environments but also the most enduring; it is logical, therefore, to focus first on this triad of influences. The community, in turn, affects children both directly as well as indirectly through their parents, so that modifying aspects of the wider environment can have benefits through both routes. With regard to children's own attributes, these obviously do play a major role in resilient adaptation, but many "child attributes" (such as self-efficacy or even intelligence) are themselves shaped by forces in the environment (Hanson & Gottesman, 2012; Luthar 2006; Ungar, 2012). These are therefore discussed third in the sequence.

Rather than describing findings of individual studies in the research literature, our emphasis, in this section, is on summarizing major themes that have emerged regarding salient vulnerability and protective processes with selected investigations described for illustrative purposes. Along with empirical evidence on the three sets of risk-modifiers, relevant evidence from intervention efforts is also considered; data from interventions can provide valuable lessons for science by showing, for example, whether targeting hypothesized protective factors does in fact predicate resilient adaptation (Cicchetti & Hinshaw, 2002; Luthar & Cicchetti, 2000).

Family Relationships

Effects of Maltreatment. Of the many processes that affect the adjustment of at-risk children, among the most powerful is maltreatment by primary caregivers. Maltreatment co-occurs with many high-risk circumstances including poverty, community violence, parental conflict, and parent mental illness (Cicchetti & Toth, this volume), thus operating as a rampant vulnerability factor. Maltreated children show deficits spanning multiple domains, with functioning disrupted in interrelated areas over time; this is unsurprising, as maltreatment entails serious perturbations in the most proximal level of the child's environment (for a full discussion of the developmental impact of maltreatment, see Cicchetti & Toth, this volume).

Long-term, multi-domain resilience is rare among maltreated children -- as seen in diverse adult health problems linked with child maltreatment (Felitti & Anda, 2010) -- but profiles of adjustment are, obviously, not homogeneous (Cicchetti, 2013). Forces that can mitigate vulnerability to some degree include positive relationships with others. As will be described fully later, good quality of caregiving is the single most robust of protective factors for children exposed to various adversities, so that positive relationships with alternate caregivers could serve protective functions for maltreated youth (Lawler, Shaver, & Goodman, 2011). Unfortunately, experiences of maltreatment also thwart access to these potentially beneficial influences, as maltreated youth struggle more than others to establish close relationships with alternative adult caregivers (Cicchetti, 2013). Furthermore, the protective function of social support can vary with the seriousness of maltreatment, with buffering effects diminishing, for example, with increases in the number of maltreatment subtypes experienced and chronicity across developmental periods over time (Cicchetti, 2013).

Beyond caregiver-child bonds, support from other relationships may be protective. Potential in this regard is seen in Bolger and Patterson's (2003) longitudinal research showing that among chronically maltreated children, having a positive, reciprocal friendship was associated with an increase in self-esteem over time. Mediating processes implicated might include improved social skills, changes in working models of attachment, increases in perceived acceptance, and decreases in felt loneliness.

Personality factors can also make a difference. Cicchetti and Rogosch (2007) found that ego-resiliency and ego-overcontrol predicted relatively competent functioning in maltreated children, as Bolger and Patterson (2003) found that maltreated children with higher internal locus of control manifested lower levels of symptoms than others. As with access to alternative supportive caregivers,

however, the experience of maltreatment also compromises the very personal attributes that could confer protection. As Cicchetti (2013) has noted, maltreated children as a group show many deficits in emotional regulation, either showing excessive amounts of negative affect or blunted affect with little positive or negative emotion. Given their difficulty in effectively modulating physiological arousal, they also have trouble coping with emotionally stressful situations, particularly in the case of early-onset maltreatment. In summary, then, repeated developmental disruptions of a maltreating environment not only directly increase risk for maladjustment, but, in addition, work against positive attributes that could have served protective functions (cf., Cicchetti and Toth, this volume).

Acknowledging the breadth of processes affected, there have recently been calls for multilevel examinations of social-ecological pathways affecting outcomes among maltreated children (cf., Luthar & Brown, 2007). For example, Ungar (2013) has argued that for children who have been maltreated, individual attributes will be protective to the extent that they enable engagement with available resources, from community and mental health services, to features of the physical environment. In this case, analyses that consider the quality and availability of resources and services, alongside children's individual characteristics, may provide a more nuanced understanding of variations in adaptation among samples of maltreated children.

Protective Family Forces: Attachment, Nurturance, and Support. Whereas maltreatment is pernicious, child abuse is obviously not inevitable among families facing major life adversities, and positive relationships with adults can be powerful in promoting resilience among children confronting diverse risks. The critical importance of strong family relationships has long been emphasized by child development theorists from diverse perspectives. This theme is at the core of classic psychodynamic perspectives ranging from Freud's stages of psychosexual development and Mahler's notion of human symbiosis to Bowlby's attachment theory and Erikson's emphasis on trust versus mistrust. Besides psychodynamic viewpoints, Havighurst's earliest developmental tasks – learning to walk, talk, and relate age-appropriately to others – presuppose the presence of an attentive adult to foster mastery of these tasks. Similarly, learning theorists such as Bandura and Skinner emphasized the power of parents' reinforcement patterns as well as modeling behaviors in shaping the child's personality.

Consistent with these classic theories of child development, the earliest studies of resilience established that the presence of a close relationship with at least one parent figure was highly protective across a range of risks, ranging from chronic family poverty and early institutionalization to serious parent mental illness and multiple co-existing adversities (for summaries, see Luthar & Zigler, 1991; Masten et al., 1990). Recurrent reviews of the literature, similarly, have consistently pointed to responsive and supportive parenting as being the single most robust predictor of resilient adaptation in the face of diverse adversities (Crnic & Neece, this volume; Luthar & Brown, 2007; Masten, 2011; Vanderbilt-Adriance & Shaw, 2008).

Particularly important in shaping long-term resilient trajectories are early family relationships. In Shonkoff and colleagues' (2012) call to action to combat toxic stress in early childhood (with its long-term effects on the individual's stress response system), nurturing relationships with significant adults are afforded top priority, listed beside children's most basic needs for survival including adequate nutrition and safe physical environments. The critical role of early relationships is seen in longitudinal evidence that early experience places people on probabilistic trajectories of relatively good or poor adaptation, shaping the lens through which they view subsequent relationships, as well as their capacities to utilize support resources in the environment (Sroufe, Coffino, & Carlson, 2010). Thus, when early attachments are insecure in nature, at-risk children come to anticipate negative reactions from others and can eventually elicit these; experiences of rejection, in turn, further increase feelings of insecurity. Conversely, at-risk children with at least one positive relationship are able to draw upon nurturant others with whom they interact subsequently in development (Shonkoff & Phillips, 2000; Sroufe et al., 2010).

Biological research has also pointed to sensitive periods in early attachments. Across various animal species, separation from the mother after birth can lead to permanent changes in neurochemistry, endocrine responsivity, and problem behaviors (for a summary, see Luthar & Brown, 2007). Powerful evidence in this regard is seen in studies by Suomi and his colleagues with rhesus monkeys. After an

initial month in a neonatal nursery, these monkeys were reared for six months away from their biological mothers, but in the presence of 3-4 other infants. These peer-only raised monkeys came to display several maladaptive behaviors including greater aggression, greater consumption of alcohol during "happy hour" situations, and greater biological stress reactivity (Suomi, 2006).

In humans, Gunnar and her colleagues have demonstrated that secure attachments to caregivers can prevent elevations of stress hormones in situations that typically elicit distress in infants (see Gunnar et al., this volume). In contrast, children with insecure attachments usually react to threatening situations with increased levels of the stress hormone, cortisol. Reviewing research on the ontogeny of the stress system, comprising the limbic-hypothalamic-pituitary-adrenocortical (L-HPA) and sympathetic-adrenomedullary (SAM) systems, Gunnar and Quevedo (2007) concluded that (a) individual differences in the regulation and reactivity of both systems are related not only to temperamental characteristics but also to quality of caregiving, and importantly, that (b) the impact of the former may indeed be best understood in the context of the latter.

Among older children as well, competent parenting plays a critical role in promoting child well-being over and above the effects of contextual factors such as family poverty (Werner & Smith, 1982, 1992). Adolescent perceptions of maternal warmth, for example, are related to diverse positive outcomes including better personal adjustment and academic achievement (Suizzo et al., 2012; Walton & Flouri, 2010).

Even when risk factors stem from within the family – as when one parent has a mental illness – a strong relationship with the other parent can be substantially protective. In families affected by parental depression, for instance, Beardslee (2002) underscored the importance of strong, supportive relationships with at least one parent for resilient adaptation. Similarly, Edwards, Eiden, and Leonard (2006) found that, among young children of alcoholic fathers, a secure attachment to mothers could protect against the development of externalizing symptoms, and in a longitudinal sample of children of alcoholics, Werner and Johnson (2004) reported that the presence of a supportive, nonalcoholic mother was a critical protective factor among those who functioned well in young adulthood.

The protective potential of strong relationships has been demonstrated not only for mothers but also for fathers and father-figures. In low-income, African-American families, warm, stimulating paternal behavior during early childhood was found to benefit children's academic skills in middle childhood, irrespective of whether fathers lived with their children, and independent of maternal characteristics (Coley, Lewin-Bizen & Carrano, 2011). In the Iowa Youth and Families Project, strong emotional ties to fathers were associated with resilient adaptation among youth, while their absence contributed to vulnerability (Elder & Conger, 2000). Indirect effects of non-resident fathers' involvement have also been shown, predicting to fewer child behavior problems via improvements in the mother's parenting, and the quality of mother-father interactions (Choi & Jackson, 2011).

Whereas close involvement with fathers can yield several benefits, it has also been found, in some cases, to be linked with relatively poor child outcomes (see Coley, 2001). Negative effects may derive from elevated conflict between highly involved fathers and mothers, resulting, for example, from disagreements about disciplinary practices for their young children. Additionally, problem behaviors in some children of highly involved low-SES fathers may stem from exposure to high levels of paternal antisocial behaviors (Coley, Carrano, & Lewin-Bizen, 2011). As Carlson and Magnuson (2011) note, there remains a need for more studies on the impact of low-income fathers in particular, with careful consideration of the many contextual variations in which fathering takes place (e.g., according to culture, ethnicity, child age and gender, and family living arrangements). In parallel, Luthar, Barkin, and Crossman (2013) underscore the need for more research on fathers in upper middle class families, given their high-stress, demanding careers and frequent absences from the home and family.

Still insufficiently explored are the benefits -- or in some cases, the costs -- of "social fathering" a phenomenon common in low-income, ethnic minority groups wherein men other than biological fathers fulfill the father-figure role (Coley, 2001). At this time, the existing literature on social fathering appears inconclusive, with some studies showing benefits for children, and others reporting outcomes that are no better than for children living in single-parent families (Carlson & Magnuson, 2011).

Apart from parents, siblings can also help modify the effects of high-risk circumstances. In research on rural African-American families, older siblings' competent behaviors at school were linked with increases in younger siblings' competence over time, through the intervening variable of younger siblings' self-regulation (Brody, 2004). By the same token, siblings can exacerbate vulnerability within at-risk families. This might occur through bullying, through modeling of negative behaviors that are emulated by younger siblings, or through mutual collusion to undermine adult caregivers (Bullock & Dishion, 2002; Fosco, Stormshak, Dishion, & Winter, 2012).

A potentially critical source of support to at-risk children lies in extended kin, with the beneficial effects occurring, directly as well as indirectly, via their parents' adjustment (Elder & Conger, 2000). Grandmother involvement in childrearing, in particular, can serve critical buffering functions for children, moderating against the negative effects of mothers' depressive problems and their harsh parenting behaviors (Barnett, Scaramella, Neppl, Ontai, & Conger, 2010; Silverstein & Ruiz, 2006). Indirect effects are evident in findings that kin support can bolster parents' feelings of well-being and competence, as well as their positive parenting behaviors and involvement in children's schools, benefits which in turn, lead to positive child adaptation (Oberlander, Black, & Starr, 2007; Parent, Jones, Forehand, Cuellar, & Shoulberg, 2013).

Can Subsequent Good Relationships Compensate for Lack of Parent Nurturance? Early relationships are critical in shaping the lens through which people view their subsequent interactions, but "faulty lenses" can be corrected to some degree. As noted earlier, developmental psychopathologists contend that there is generally continuity and coherence in development, such that positive adaptation in the early years predicts, in probabilistic rather than determinative fashion, likely success at later stages (Sroufe et al., 2010). At the same time, lawful discontinuities often do occur and in the context of attachment status, these changes derive from alterations in the caregiving environment (Aikins, Howes, & Hamilton, 2009; Van Ryzin, Carlson, & Sroufe, 2011).

Such lawful discontinuities are exemplified by findings that children show shifts from secure to insecure patterns if the availability of the parent becomes reduced because of circumstances such as chronic mental or physical illness, or life events such as divorce (Moss, Cyr, Bureau, Tarabulsy & Dubois-Comtois, 2005; Pinquart, Feussner, & Ahnert, 2013). In longitudinal research, preschool children who moved from a secure classification at age three, to disorganization at age five, were more likely to have experienced decreases in the quality of mother-child interactions as well as negative family events such as the hospitalization of parents (Moss et al., 2005). Similar effects were found in prospective research spanning infancy through late adolescence. Individuals' insecure attachment at the age of 19 years was not related to insecure status at one year, but it was related to more frequent maternal reports of high life stress, and lower-quality observed family interactions in early adolescence (Weinfield, Whaley, & Egeland, 2004).

In parallel, lawful discontinuities in shifts from insecure to secure attachment status occur with improvements in the primary caregiver's well-being. A study of low-income rural children revealed that nearly half of those who were classified as insecure at 15 months were securely attached by the age of four, changes that were associated with factors such as stability of primary caregiver and higher maternal social support (Fish, 2004). Similarly, among low-income children with insecure and avoidant patterns of early attachment, several came to show secure attachments by adulthood, manifesting close relationships with romantic partners and good parenting behaviors themselves (Roisman et al., 2002). Again, changes in attachment status were seen as deriving from positive experiences with caregivers through the later childhood and adolescent years.

Intervention studies provide consistent evidence that attachment status can be responsive to improvements in caregiving. Among mothers and children in maltreating families, positive changes in attachment status have been achieved via home-based interventions that are based on psycho-educational and psychotherapeutic frameworks, targeting improvements in maternal sensitivity (see Cicchetti & Toth, this volume). Similar benefits have been seen following interventions for low-income families (Heinicke, Rineman, Ponce, & Guthrie, 2001), and for young children of depressed mothers (Cicchetti & Toth, this volume).

Consistent evidence is seen among children who received good quality foster care experiences following significant early disruptions in relationships with caregivers. Dozier and her colleagues have shown that insecure early attachments were somewhat remediated among children by intervention services and foster caregivers' positive qualities, including responsiveness, nurturance and their own attachment states of mind (Dozier, Albus, Fisher, & Sepulveda, 2002).

The ameliorative potential of strong relationships is not restricted to childhood, as seen in long-term prospective studies. Among women who had been institutionalized as young children, Rutter (1987) showed that those who had good marital relationships as adults – characterized by harmony and a warm, supportive spouse – fared much better than others in the quality of their own parenting behaviors. Similarly, among delinquent adolescent boys followed through the age of 70 years, Laub and Sampson (2003) found that changes in rates of crime over time were strongly linked with adult transitions to marriage**,** with this variable alone explaining as much as a 40 percent reduction in rates of crime (see also Vaillant, 2012). Similar reversals of negative trajectories have been associated with enrolment in the army (and with relocation out of high-crime, low-income neighborhoods), ostensibly deriving from the structure and positive socializing influences in the new social contexts (Laub & Sampson, 2003; Ludwig et al., 2012; Werner & Smith, 1992).

Obviously, the reversibility of early insecure attachments depends on the duration and severity of early deprivation, as seen in longitudinal research on children adopted into United Kingdom families following early severe deprivation in Romanian orphanages. At age six, dose-response associations were found between length and intensity of early deprivation and psychological functioning, but this relationship weakened somewhat by age 11, suggesting the reversibility of early attachment problems (Rutter, Sonuga-Barke, & Castle, 2010). Research by Gunnar and colleagues (this volume) has shown similar dose-response effects with levels of the stress hormone, cortisol, as the outcome of interest. A meta-analysis of attachment patterns in adopted children (van den Dries, Juffer, van IJzendoorn & Bakermans-Kranenburg, 2009) showed a trend for those adopted before the age of 12 months to be as securely attached as non-adopted children, while those adopted at older ages were less likely than comparison peers to be securely attached.

Over a longer developmental period, dose-response associations are evident in findings on ramifications of family climate during early childhood, middle childhood, and early adolescence, for intergenerational relationships between participants at age 26 years and their parents (Belsky, Jaffee, Hsieh, & Silva, 2001). Results showed that unsupportive child-rearing during one of the three developmental periods could be offset if family relations in the other two periods were relatively supportive. Such amelioration was not found if two of the three periods reflected disruptions.

 It is unclear, however, whether the required potency of "corrective" nurturing relationships is comparable to that experienced by well-functioning individuals who did not face early deprivation. In a study comparing children who were adopted from international institutions to those who were raised by their biological parents, researchers found that caregiver emotional availability at 18 months benefited emotional understanding and indiscriminant friendliness at 30 months for post-institutionalized children, suggesting that emotional availability potentially moderates the ill-effects of early deprivation (Garvin, Tarullo, Van Ryzin, & Gunnar, 2012). At the same time, parents of these adopted children tended to be less structured and more intrusive in their care, indicating that "parents of children adopted from conditions of deprivation may need to provide even more supportive care than is needed for nondeprived children in order to enhance their social development" (Garvin et al., 2012, p. 46).

In parallel, it is not clear that positive adoptive environments entirely expunge the ill-effects of early disturbances in attachment. Among the previously mentioned children in Romanian orphanages, Rutter and colleagues (2010) found that, at the age of 6 years, most showed social and cognitive functioning in the normal range after being adopted into British families. Follow-up assessments, however, revealed that a substantial minority manifested major persistent deficits, both at 6 and 11 years old. Persisting psychological problems in this subgroup were interpreted as suggesting some form of early biological programming or neural damage stemming from severe institutional deprivation (Rutter et al., 2010). Similarly, among adults with secure attachments in current partner relationships, those who

had insecure attachment representations based on early relationships were more reactive to stress than were those who had secure attachments in their early relationships as well (Treboux, Crowell, & Waters, 2004).

Protective Parenting: Discipline and Monitoring. Aside from dimensions of attachment and warmth, another broad parenting construct critical for resilient adaptation falls in the broad domain of discipline: limit-setting and monitoring. Limit-setting -- which refers to the use of appropriate rules and expectations and consistent rule-enforcement -- is critical in shaping future compliance and socially desirable behavior in children (Schneider, Cavell, & Hughes, 2003).

When discipline is inappropriately harsh, this exacerbates vulnerability to maladaptive behaviors. Patterson's Social Coercion Theory (Patterson, Reid, & Dishion, 1992) maintains that if parents typically respond to young children's annoying behaviors in ways that are based on power assertion, children tend to escalate their own aversive behaviors in attempts to control the parents. Thus, the frequent use of physical discipline leads children to become more noncompliant and hostile, and as the children's aversive behaviors increase in intensity and frequency, parents sometimes acquiesce, thereby reinforcing the maladaptive behaviors.

Strong support for Patterson's coercion theory is seen in Shaw and colleagues' Pitt Mother-Child Project (PMCP), involving 310 low-income families with boys first assessed at 18 months, and tracked until age 17 (Shaw, Bell, & Gilliom, 2000). The researchers postulated that when mothers were unresponsive to infants' continued bids for attention, this would lead to later coercive exchanges between mother and child by age 2, which in turn would be linked with elevated risk for externalizing behavior problems. Results at three years of age were consistent with expectations (Shaw et al., 2000), and subsequent follow-up research pointed to long-term detrimental effects. Unresponsive patterns of parenting documented during early childhood were associated with juvenile court involvement and increased risk for clinical depression during the boys' adolescent years (Shaw, Hyde, & Brennan, 2012).

In other studies, the focus has been not on maternal unresponsiveness, but on hostility. Noting toddlers' tendencies to evoke frustration from caregivers (e.g., because of their increase in mobility and assertion of "independence"), a critical developmental task for mothers is the maintenance of a non-hostile, relatively positive approach while shaping their children's behaviors. Negative mother-child interactions during toddlerhood, as well as maternal hostility and frustration, were significantly associated with conduct problems at five to six years of age (Lorber & Egeland, 2011). Similarly, assessments of the PMCP cohort between the ages of 10 and 15 years showed that mother-reported physical discipline in a given year predicted child ratings of antisocial behavior in the next year (Lansford et al., 2011). When such rejecting, over-controlling behaviors reflect a general parenting approach, children show escalated risk for conduct problems not only at home but also at school, with such effects documented during the pre-teen years and adolescence (Shaw et al., 2012).

Interpretation of hostile parenting (in the form of verbal and physical discipline) is based somewhat in cultural context, and can vary by gender (Evans, Simons, & Simons, 2012). In a study of ten-year-olds and their mothers from China, India, the Phillipines, and Thailand, Lansford and colleagues (2010) demonstrated that the effects of harsh verbal discipline by mothers were more severe when children viewed these behaviors as non-normative, as opposed to normative, within their own cultural contexts.

Related to limit-setting and also important for resilience is parental monitoring, a "set of correlated parenting behaviors involving attention to and tracking of the child's whereabouts, activities, and adaptations," (Dishion & McMahon**,** 1998, p. 61). The benefits of consistent parental monitoring are particularly pronounced among pre-adolescents and adolescents, who have increasing independence from parents, and thus growing exposure to a host of risks in the peer and community environments. Studies have shown that when their parents tend to know of their daily activities and associations, adolescents are less likely to engage in delinquent behavior, alcohol and drug use, and risky behaviors involving sex or online exchanges while using social media (Luthar et al., 2013; Piko & Eszter, 2010; Rosen, Cheever, & Carrier, 2008; Shaw et al., 2012). Consistent parental supervision also significantly aids adolescents with delinquent histories to desist from offending, over and above the effects of high housing quality and

parent stress (Walker, Bowen, & Brown, 2013).   Even in areas of armed conflict, parental monitoring has been shown to be protective, leading to more positive mental health outcomes for adolescents exposed to violence (Tol, Song, & Jordans, 2013).

Links between parent monitoring and adolescent adjustment are not always simple linear ones; they can be curvilinear, and they can vary with co-existing risks in the community. To illustrate, O'Donnell, Richards, Pearce, and Romero (2012) suggested that the influence of parental monitoring on delinquency depends on environmental factors such as peer groups, as well as on the child's gender. In a high-risk sample of low-income urban African American youth, these authors found that parental monitoring was associated with boys' delinquent behavior, while peer groups had a stronger relation to delinquency in girls, possibly because adolescent females tend to be highly sensitive to close interpersonal relationships.

Importantly, effective monitoring necessitates not just parents' efforts to know about their children's whereabouts, but also the latter's willingness to disclose to their parents, and each can have independent effects. Positive adjustment outcomes such as academic effort, for example, are related to both adolescent disclosure and parental solicitation, while negative outcomes like delinquency and violence are related to minimal adolescent-parent communication, including low honesty with parents as well as low time spent together (Cheung, Pomerantz, & Dong, 2012; Lahey, Van Hulle, D'Onofrio, Rodgers, & Waldman, 2008). Overall, parents' knowledge regarding their adolescent offsprings' whereabouts and company tends to result more from youth disclosure than from active parental monitoring (see Lahey et al., 2008).

In terms of discrete underlying processes, ethnographers have delineated several expeditious limit-setting and monitoring strategies used by inner-city families (see Weisner, 2005). These include the avoidance of dangerous areas, temporal use of the neighborhood (e.g., not being outside at night), and restriction of children's relationships with deviant and older peers. Other posited protective mechanisms include those resting on psychological processes: Structure and continuity in the environment can promote the development of effective coping skills among youth, as parental expressions of interest and concern for the child's well-being tend to bolster positive self-esteem.

Related to monitoring -- in some ways, the converse of it -- is autonomy granting, also important for resilient adaptation. Observational research involving mother-infant interactions suggests that maternal support of exploration and autonomy (versus maternal restriction and control) is associated with the child's self-regulation, positive affect, mastery motivation, and task-persistence through subsequent years (see Bornstein, Davidson, Keyes, & Moore, 2003). Among older children, perceptions of their own autonomy are linked with various indices of adaptive development such as interest-focused academic engagement and prosocial behavior (e.g., Roth, Assor, Niemiec, Ryan, & Deci, 2009).

Autonomy has particularly high significance during the teen years, as a major developmental task of adolescence is to negotiate the struggle between developing independence on the one hand, and maintaining close bonds with parents on the other. Research by Allen and his colleagues has shown that among teens from both low- and high-risk contexts, those with parents who encouraged autonomy and disclosure had higher levels of self-esteem as well as ego development (see McElhaney & Allen, 2012). In addition, maternal behaviors promoting adolescent autonomy and relatedness were associated with coherence/security of attachment during the adult years. In parallel, research has established that low autonomy- granting during adolescence is detrimental. High school students who experienced high levels of parent control associated with authoritarian parenting showed relatively low levels of psychological flexibility (Williams, Ciarrochi, & Heaven, 2012).

Interestingly, adolescents and parents can have divergent perceptions of the degree to which parents influence their children, and the ramifications for teens' adjustment differ by source of ratings. Adolescents' reports of high parental influence are associated with warm, autonomy-granting parenting as noted by youths' own reports as well as unbiased observers (McElhaney & Allen, 2012). Conversely, when parents' believe their own parenting to be highly influential on their children, lower levels of autonomy-granting and low relatedness tend to be reported and observed.

As in the case of parental monitoring, the "optimal" level of autonomy granted to adolescents can

vary as a function of socio-demographic context. Among youth in urban poverty, maternal behaviors that undermined adolescents' autonomy (i.e., interrupting them to shut down discussions) were positively linked with mother-adolescent relationship quality, whereas among low-risk comparison youth, associations were inverse in nature (see McElhaney & Allen, 2012). It is plausible that behaviors potentially seen as "overprotective" are seen as expressions of concern and care among youth in high-risk settings, while they tend to be seen as inappropriately inhibiting and even guilt-evoking by teens in other contexts.

 Coexisting Warmth and Appropriate Control.   Whereas high levels of warmth and appropriate control each have protective functions, the benefits of each depend to some degree on levels of the other: high warmth with lax discipline can be linked with poor adjustment as can strict discipline without affection. Optimal is the authoritative parenting style, "characterized by high warmth and expectations, with appropriate levels of autonomy granting" (Padilla-Walker, Day, Dyer, & Black, 2012, p. 4).

 Among low-income mothers, efforts to facilitate warm and responsive interactions with infants or toddlers enhanced the quality of future discipline techniques, in turn serving as a powerful force against externalizing disorders in childhood and adolescence (Shaw et al., 2012). Conversely, among adoptive families, patterns reflecting over-reactive parenting along with low maternal efficacy were associated with increases in the toddlers' negative emotionality (Lipscomb et al., 2011). A study of academic trajectories among low-income Mexican-American adolescents found that maternal warmth moderated the relationship between parental academic socialization (e.g., placing importance on school success) and students' determination to succeed academically. In the presence of higher maternal warmth, students were more likely to respond positively to parental expectations to succeed at school (Suizzo et al., 2012).

 Timothy Cavell (2000) has emphasized the importance of an appropriate balance of warmth and discipline within the notion of parental *containment*, that is, "any behavior that fosters in children a sense of restraint while not threatening their relationship security" (Cavell, 2000, p.131). Recent studies have pointed to the protective potential of this construct. Building upon Cavell's (2000) arguments, Schneider et al. (2003) defined perceived containment as the child's beliefs concerning the parent's capacity to enforce firm limits, and the likelihood that the parent will prevail in conflict. Among upper-middle class teens – who are at much higher risk for alcohol and drug use than national normative samples – teens' perceived parent containment for substance use was a potent predictor of both females' and males' use levels, even after considering other more traditionally examined indices of parent monitoring (see Luthar & Barkin, 2012). Thus, affluent adolescents who believed their parents would enforce rules in response to detected substance use were much less likely to use them, than were their counterparts who believed their parents would mete out few or no consequences (Luthar et al., 2013).

 Intervention studies with at-risk youth further buttress the conclusions from basic research on the importance of firm, consistent discipline in the context of supportive parent-child relationships (see Biglan & Taylor, 2000). In a review of the literature, Kumpfer and Alvarado (2003) note that "Effective parenting is the most powerful way to reduce adolescent problem behaviors" (p. 457) and describe three approaches that are generally found to be successful. The first includes behavior training approaches that are highly structured and involve working only with parents; the second entails an integration of parent behavior training and children's social skills training, both administered in group format; and the third involves family therapy programs to enhance positive within-family interactions.

 Whereas warmth and developmentally appropriate discipline are two "universals" of good parenting, there are other dimensions that can serve important protective functions in particular risk contexts. In families of children with chronic developmental conditions, for example, Crnic and colleagues have pointed to the unique significance of emotional and cognitive scaffolding as well as parent involvement (Crnic & Neece, this volume). In ethnic minority families, much can be gained from parents' attempts to inculcate in their children a sense of pride in their racial backgrounds (see Spencer, Swanson, & Harpalani, this volume). Among upper middle class families in hyper-achieving communities, children fare better when they see their own parents as having balanced value systems, prioritizing the children's personal decency and integrity every bit as much as their personal accomplishments (Luthar et al., 2013).

Communities

Effects of Violence. As with chronic maltreatment in the family, chronic exposure to violence in the community can have overwhelming inimical effects, difficult for other positive forces to override and affecting multiple domains. Exposure to violence significantly exacerbates risks for internalizing problems such as anxiety, depression, and post-traumatic stress disorders, as well as externalizing problems such as delinquent, antisocial behaviors, (Fowler, Tompsett, Braciszewski, Jacques-Tiura, & Baltes, 2009). Academic performance has also been found to suffer in the context of exposure to violence, often through mediators, such as aggression or behavior problems, and lowered feelings of safety (Busby, Lambert, & Ialongo, 2013). Repeated exposure to violence, especially early in development, is a form of chronic stressor that also can fundamentally alter neurological system development, and thus may affect children's physiological arousal and ability to process stress (see Gunnar et al., this volume).

Several aspects of violence exposure can affect the reactions of a child, including relationship to victims and physical proximity to the events (Fowler et al., 2009). Sharkey's (2010) examination of violence in Chicago neighborhoods showed that children living closest to the location of a homicide were most negatively affected, in terms of lower scores on literacy assessments soon after the event. In a study of urban 16-year-olds, witnessing a close friend or family member being the victim of violence was associated with heightened depressive symptoms among both boys and girls; this was not seen when the victim was a stranger or someone the adolescent did not know well (Lambert, Boyd, Cammack, & Ialongo, 2012).

Disorganization and violence in the community affect children directly as well as indirectly, via effects on their parents. Among low-income single mothers, higher levels of social disorder and maternal exposure to neighborhood violence predicted greater parenting stress (Franco, Pottick, & Huang, 2010), and women who reported moderate to high violence exposure were more likely to demonstrate physically aggressive parenting toward their three-year-old children (Zhang & Anderson, 2010). Among at-risk pre-teens and adolescents in large cities, similarly, increased family conflict was a pathway via which violent victimization in the community affected children's adjustment problems (Formoso, Gonzales, & Aiken, 2000; Holtzman & Roberts, 2012).

There is modest evidence that parents' functioning can moderate the effects of community violence on children (e.g., Bailey, Hannigan, Delaney-Black, Covington, & Sokol, 2006), but when peoples' very survival is constantly threatened, parents are obviously constrained in how much they can confer psychological protection to their children. This is evident in results of several studies on violence exposure, examining whether positive family functioning might show "protective-stabilizing" influences – helping children to function well even as exposure escalated. Considered together, the findings provided limited support at best for such effects (e.g., Ceballo & McLloyd, 2002; Jain et al., 2012). When study measures were particularly sensitive to level of violence exposure, a common theme was that indices of positive family functioning (e.g., time spent with parent, closeness to them) were beneficial at low levels of exposure. On the other hand, when violence exposure was high, the benefits of these family variables were considerably diminished.

By contrast, poor family functioning clearly does exacerbate the risks of community violence – when children experience significant disturbances in their proximal as well as their distal environments, their risk for psychopathology becomes substantial.   To illustrate, low family cohesion predicted delinquency in adolescents who had witnessed violence in their communities, while those with similar violence exposure histories, but high levels of family cohesion, were not affected in the same way (Barr et al., 2012). Similarly, McKelvey and colleagues (2011) found that high family conflict was a moderator of community violence among boys, associated with increases in internalizing symptoms and risky behaviors by the age of 18 years. Among girls, high family conflict was a risk factor for internalizing symptoms regardless of community violence levels. Overall, such results corroborate the view that the lack of a reliable, supportive refuge, or low emotional connectedness to family, tends to exacerbate the risk for maladjustment for children exposed to high levels of community violence.

A specific type of exposure to violence that can be highly disruptive to child and adolescent

development is exposure to war and political conflict, and recent years have seen increased research on this topic. Reviewing extant evidence, Werner (2012) indicated that high rates of psychopathology, notably posttraumatic stress disorder, depression, and anxiety, have been documented among children exposed to violent conflict in various countries around the world. Children appear to be especially at-risk when they have been involved in close interpersonal violence, for example, as in the case of child soldiers (Betancourt et al., 2010). Additionally, youth can be differentially affected by wartime experiences according to developmental stage at time of exposure. Adolescents may be at heightened risk of symptoms of trauma due to their greater capacity to understand the implications of the violence they witness, while younger children may feel the effects of forced separation from parents or caregivers more acutely (Masten & Narayan, 2012).

There is some evidence of resilient functioning among children exposed to the violence of war, though findings on both predictors and outcomes are not consistent (Barber, 2013; Tol et al., 2013; Werner, 2012). Relationship-based factors, including a positive and stable connection to a primary caregiver, parental monitoring, and perceptions of support from extended kin and/or members of the broader community, have in some cases been associated with better post-conflict outcomes, such as fewer depressive symptoms (e.g., Betancourt et al., 2010; Durakovic-Belko, Kulnovic & Dapic, 2003; Tol et al., 2013; Werner, 2012). By the same token, when family functioning is disrupted, risks for child maladjustment are exacerbated. In war-affected populations in Afghanistan, family violence particularly exacerbated the effects on adolescents' mental health (Panter-Brick, Goodman, Tol, & Eggerman, 2011).

Ecological sensitivity is critical in assessing the ways in which war exposure might affect children and adolescents. Commenting on recent work in this area, Panter-Brick and Leckman (2013) underscored the importance of ensuring that markers of "resilience" are culturally relevant, with attention to local mores about behaviors that are considered adaptive or maladaptive, as well as ways in which distress is experienced versus manifested. Illustrating the importance of this issue, Tol et al. (2013) cite ethnographic research in northern Uganda where children exposed to conflict did not report high psychological distress. Their ostensible resilience, however, was in fact related to cultural values emphasizing respect for others who suffered in silence, and not wishing to hurt those who did suffer. Thus, individuals' own distress was more freely expressed in somatic symptoms, which were addressed via use of tranquilizers.

Protective Processes in Communities: Early Intervention and the School System. Whereas the ill-effects of chronic exposure to severe violence in the community are rarely over-ridden by other protective processes, there are exosystemic forces – those in communities and schools -- that can attenuate the damages conferred by other types of adversities. Again, the broader community can shape child outcomes by directly affecting youth themselves, and also indirectly, by effects on their parents.

In early childhood, the quality of child care can serve critical ameliorative functions that endure across extended periods of children's development. Reports by the NICHD Early Child Care Research Network showed that among families living in or near poverty, mothers whose children were in high-quality child care showed more positive interactions with their infants. Furthermore, these benefits were evident even through the age of 15 years: high quality of early child care was linked with lower externalizing behavior during adolescence as well as better cognitive-academic achievement, with the latter association partly mediated by earlier child-care effects on achievement (Vandell et al., 2010).

Among the major features defining "good quality of care", primary are the characteristics of the child care providers (e.g., education and training levels), the emotional quality of caregiving, the child to adult ratios (e.g., with three or fewer infants per caregiver being optimal), and the stability of child care providers (Phillips & Lowenstein, 2011). Studies have documented that when caregivers have positive personal characteristics and offer emotionally supportive caregiving, benefits are seen in a range of child outcomes including early academic skills, language development, and social competence (Lamb & Ahnert, 2006).

Unfortunately, accessing high quality care is generally the most difficult for the poorest and most needy families, and key aspects of quality are often in jeopardy, given the poor working conditions of most child care workers (Hanson & Gottesman, 2012). The average hourly wage of these workers in the

US is $10.07 (the average hourly wage of school bus drivers is $14.01 and of animal trainers, $14.59), and turnover rates are among the highest of any profession that is tracked by the US Department of Labor (US Bureau of Labor Statistics, 2013). Improving the quality of child care available to all families, but particularly those at high risk, therefore must be treated as a critical social policy priority.

Involvement of families is critical, if not indispensible, in effective early interventions; indeed, some of the benefits of efficacious, multi-pronged programs derive directly from the support and mentoring that parents receive from child-care providers (Phillips, McCartney, & Sussman, 2006). Research on the relative effects of child care has shown that despite the benefits that high-quality programs can provide, overall, family characteristics have the greater impact on young children's developmental outcomes, in both the short- and long-term (NICHD, 2006; Phillips & Lowenstein, 2011).

Exemplifying the effective involvement of parents while using existing resources to provide quality child care is Zigler's "School of the 21st century" (Zigler & Finn-Stevenson, 2007). In this program, public school buildings, which remain unoccupied for large portions of the day and the calendar year, are used to house child care programs for children three years and older, and also to host regular support group meetings for parents. Referral and information networks also are developed in schools to help parents make better use of various existing services scattered across their communities, such as those offering counseling, physical health care, or night care for children. A similar approach is indicated in the Promise Neighborhoods initiative, inspired by the Harlem Children's Zone (HCZ) (Komro, Flay, Biglan, & Promise Neighborhoods Research Consortium, 2011). HCZ has included early childhood services in their extensive efforts to transform the educational opportunities for children in their communities, offering a Baby College for expectant and new parents, and pre-kindergarten for children who will be attending HCZ schools (Harlem Children's Zone, 2009).

Attachment-based Interventions in Schools. Among older children, K-12 schools can bring substantial beneficial effects to youth in at-risk circumstances: supportive relationships with teachers can be critical in fostering resilience (see Eccles & Wigfield, this volume). Writing from an attachment perspective, Robert Pianta (1999) elucidated, in depth, the benefits that can derive from close child-teacher relationships developed and then sustained for as long a period of time as feasible. Along the same lines, Schneider and colleagues (2003) have suggested that children with low perceived containment – who do not believe in adults' capacities to enforce firm limits – and are therefore at-risk for conduct disorder, might actually be better served by interventions focusing on sustained, positive relationships rather than short-term disciplinary techniques designed to counter misbehavior.

While children's past and concurrent attachments to parents remain important factors in their interactions with adults at school, intervention studies increasingly suggest (a) that children's relationships with teachers are modifiable within the school context, and (b) that positive attachments to teachers can serve important protective functions, improving behavioral as well as academic outcomes (Hughes, 2012; O'Connor, 2010; Sabol & Pianta, 2012; see also Eccles & Wigfield, this volume). Exemplifying such benefits are findings from the My Teaching Partner (MTP) program, a web-based course in which teachers collaborate regularly with consultants to review and reflect upon videotapes of the teachers' interactions with students in the classroom. MTP was initially developed for preschool classrooms, but trials of an adaptation for middle and high school have shown positive effects on student engagement and academic test results (Pianta, Hamre, & Allen, 2012).

From a developmental standpoint, increasing informal school-based support systems could be particularly critical for the wellness of preadolescent and adolescent students because they face schools that are large and impersonal (as compared to elementary or primary schools), with diminishing supports infused in daily curricula (see Eccles & Wigfield, this volume). Additionally, adolescents can be particularly reluctant to seek professionals for help with even serious adjustment problems (Cigularov, Chen, Thurber, & Stallones, 2008). In engaging supportive adults for pre-teens and teens, furthermore, it is important to consider not only subject or homeroom teachers but also other individuals to whom students are naturally drawn. Some at-risk students may actually be inhibited about seeking support from their own subject teachers, perceiving them primarily as disciplinarians and evaluators of academic progress; many seek out, as confidants or mentors, other school-based adults ranging from sports coaches

and music instructors to administrative or support staff (Luthar et al., 2013; Noam & Hermann, 2002).

Some programs have also used outside facilitators to provide students with supportive relationships outside of the classroom. To illustrate, RALLY (Responsive Advocacy for Life and Learning in Youth) for students in middle school (Noam & Hermann, 2002), and Step-Up, for high (secondary) school students (Alicea, Pardo, Conover, Gopalan, & McKay, 2012) both establish mentoring relationships between students and program staff while also working on teacher, peer and/or family engagement. Preliminary results for the Step-Up program have shown high engagement and retention within a sample of youth mostly of minority background, who had high initial rates of mental health symptoms, and were at risk of dropping out of school (Gopalan et al., 2013).

There are some promising school-based interventions that focus on the ecology of the whole school, rather than chiefly on the attachments to teachers. Felner and colleagues' (2001) High Performance Learning Communities Model is one early example of an embedded, whole-school approach. Another is the widely adopted Positive Behavioral Interventions and Supports (PBIS) program for elementary schools, which aims to reduce disruptive, aggressive behavior while supporting social and emotional development (Bradshaw, Waasdorp, & Leaf, 2012). PBIS employs universal components by implementing school-wide organization and behavioral expectations, as well as more targeted components for students with greater need in these areas.

A more recently developed intervention that combines universal and targeted components is the BRIDGE program, which uses a coaching model pairing classroom teachers and school-affiliated mental health professionals. The program addresses classroom relationships and organization to enhance students' behavioral and emotional outcomes (see Cappella et al., 2012). An early randomized trial found positive results for elementary students in several targeted areas, including academic self-concept and perceptions of victimization. In particular, teacher-child closeness was significantly higher in the intervention group, with an impressive effect size of 0.47 (Cappella et al., 2012). Collectively, these findings attest to the promise of school-based interventions targeting teacher-child dyadic relationships within the subsuming contexts of the classroom and school milieu (Pianta et al., 2012; Sabol & Pianta, 2012).

Internationally, there has been growing use of teachers and schools to enhance resilient adaptation in children exposed to traumatic events such as war or political conflict. In such situations, well-functioning schools can be critical in providing children with a sense of routine, predictability, and safety (Masten & Narayan, 2012). Classroom-based intervention programs that have been evaluated in the context of conflict include the Psychosocial Structured Activities program in Uganda (Ager et al., 2011), a cognitive-behavioral/creative-expressive program in Indonesia (Tol et al., 2010) and a preventive intervention based on stress inoculation, for children exposed to rocket attacks in Israel (Wolmer, Hamiel & Laor, 2011). In general, the results of these studies demonstrate that interventions in schools can help to reduce problems such as symptoms of post-traumatic stress disorder and more broadly, to promote effective coping skills for participating children.

Peers and Social Networks. Aside from adults at school, positive relationships with peers can also serve critical protective functions for at-risk children (Elder & Conger, 2000; Furman & Rose, this volume). Among children of divorce, for example, a supportive relationship with a single friend can help to buffer children from the deleterious effects of marital disruption (Hetherington & Elmore, 2003; see also Bolger & Patterson, 2003). Other longitudinal studies have shown that peer acceptance and friendships attenuated the links between aspects of family adversity and subsequent externalizing behaviors, at the time of enrolment in school, and between the ages of 10 and 12 years (see Lansford, Criss, Pettit, Dodge, & Bates, 2003). Findings such as these are seen as reflecting three potential mechanisms, involving (a) the provision of "remedial" socializing contexts for skills not acquired in dysfunctional homes; (b) modification of children and parents' negative behaviors by the more well-functioning peers and their parents; and (c) enhanced bonds with the social institution of the school (Lansford et al., 2003).

Intervention studies have also suggested that peer-assisted learning can result in improvements in academic achievement as well as non-academic outcomes such as self-concept, particularly for youth

from low-income backgrounds (Ginsburg-Block, Rohrbeck, & Fantuzzo, 2006). The potential in this regard is seen in Fantuzzo and colleagues' resilient peer treatment (RPT) program, a peer-mediated intervention involving pairing of socially withdrawn preschoolers with manifestly resilient peers in the classroom. A randomized study revealed that the program led to greater engagement in the salient developmental task of collaborative play based on researcher observation, with a moderate effect size of 0.36 (Fantuzzo, Manz, Atkins, & Myers, 2005).

Further potential for positive socialization is seen in interventions targeting at-risk students in elementary school, such as the PAX Good Behavior Game (PAX GBG; Embry, Staatemeier, Richardson, Lauger, & Mitich, 2003) and the Promoting Alternative Thinking Strategies (PATHS; Greenberg and Kusche, 2006). In the PAX GBG, teams of 6-year-olds received rewards from teachers (e.g., stickers) when the team behaved well. Because individual students' misbehavior lowered the team's chances of winning, students tended to encourage and help each other to conform. Long term follow up assessments have shown that by the ages of 19-21 years, participants in this program had been assigned to fewer school-based services such as placement in special classrooms, and they had significantly lower substance abuse problems as well as less involvement in the juvenile and adult criminal justice systems (Poduska et al., 2008).

Just as positive peer relationships can mitigate the effects of adversity, problems in this domain can exacerbate vulnerability. In longitudinal research, both relational and physical peer victimization were associated with increased internalizing symptoms during adolescence (Yeung Thompson, & Leadbeater, 2013). Peer rejection and bullying can lead to poor outcomes in later life across multiple domains, including internalizing problems, school drop out, and delinquency, with the combination of aggression and peer rejection connoting particularly high risk for long-term adjustment outcomes (see Kupersmidt & Dodge, 2004).

Affiliation with deviant peers is well known to exacerbate vulnerability among at-risk youth, particularly in relation to conduct problems and substance use. Among children and adolescents living in neighborhoods with high poverty and crime, affiliation with deviant peers has been a robust predictor of psychopathology (Barrera et al., 2002; Tiet, Huizinga, & Byrnes, 2010). Data on 9-15 year olds assessed during the first three waves of the Great Smoky Mountains Study showed that association with deviant peers, along with increasing levels of circulating testosterone, contributed to increases in conduct disorders over time. Furthermore, these links were mediated primarily by increases in nonphysically aggressive behaviors (Rowe, Maughan, Worthman, Costello, & Angold, 2004). In some cases, affiliating with deviant peers has been found to be connected to level of monitoring by parents; specifically, such affiliations mediate the relationship between parental monitoring of adolescents' behavior and teens' delinquency and substance use (O'Donnell et al., 2012).

The ill-effects of associations with deviant peers may be particularly strong during adolescence. Dishion's work on this topic has shown that these effects may reflect a combination of both self-selection into deviant peer groups, and deviancy training in adolescent friendships wherein delinquent behaviors and attitudes are socially reinforced (Dishion & Tipsord, 2011). Deviancy training, particularly in close friendships, predicts increases in delinquency, substance use, violence, and adult maladjustment, and tends to weaken connections to positive socializing influences. Longitudinal follow up data have shown that associating with delinquent peers was predicted by, and in turn exacerbated, poor connections to school and other prosocial ties during adolescence (Tiet et al., 2010).

The potential for iatrogenic effects of peer relationships has often been discussed in relation to the ecology of urban poverty (Dishion & Tipsord, 2011). Within inner city neighborhoods and schools, the peer culture tends to reflect the larger community such that youth growing up in high-crime neighborhoods can be exposed to more delinquent peers than are others (Murry, Berkel, Gaylord-Harden, Copeland-Linder, & Nation, 2011). In turn, affiliation with delinquent peers intensifies the risk for adolescent behavior problems. Furthermore, the personal characteristics valued by peers in inner-city settings are often at odds with those endorsed more conventionally. To illustrate, high peer popularity can be associated with disruptive, aggressive behaviors at school as well as low academic effort (Becker & Luthar, 2007), ostensibly reflecting low belief, in poor urban communities, that conformity and

application at school will actually result in long term life successes.

Negative peer socializing influences are not limited to the context of poverty, however; they are found, as well, in upper-middle class settings. As noted earlier, affluent teens are clearly at elevated risk for the high use of drugs and alcohol, and those youth who report using them frequently are among the most popular in their peer groups (Luthar et al., 2013). This association is particularly strong among boys. Among girls in upper middle class settings, negative peer influences are seen most prominently in the inordinate emphasis on their physical attractiveness. Far more so than affluent boys, or inner city girls or boys, peer acceptance is significantly linked to whether these young women are judged by peers as attractive. The extreme peer emphasis on their physical appearance is likely linked with elevated vulnerability, among these girls, to diverse problems including psychological distress, substance use, and eating disturbances (Luthar et al., 2013).

Adding to the complexities of peer group effects, some have shown that teenage peer group influences can be beneficial in some spheres of adjustment even as they are detrimental in others. A study of low-SES urban early adolescents and their affluent, suburban counterparts showed that in both samples, peer admiration was simultaneously associated with high academic effort on the one hand, and with aggressive behaviors on the other (Becker & Luthar, 2007).

There are also probably varying effects of high status in the wider peer group as opposed to support from close friends. Gutman, Sameroff, and Eccles (2002) found that support from peers -- as opposed to popularity with the wider peer group in previously discussed studies -- was associated with higher math achievement for high risk adolescents, but not their lower risk counterparts. The authors argued that peer support for academics may be limited for ethnic minority teens, and that among those exposed to multiple risks, teens who feel that they can depend on peers for help with problems fare better than those with low peer supportiveness.

Unfortunately, negative contagion effects can occur in close dyadic friendships as well as the larger peer group. To illustrate, Rose and her colleagues have shown that close friendships are a source of support, but they can also involve contagion of internalizing symptoms due to co-rumination, which entails rehashing problems in conversations and focusing on negative affect (Rose, Carlson, & Waller, 2007). Similarly, intervention programs that target adolescents in groups can trigger negative peer socializing influences (Dishion & Tipsord, 2011). Results from controlled studies show that in comparison with control conditions, peer-group interventions for high-risk youth can actually increase problem behaviors in adolescence, and negative life outcomes in adulthood. Developmental processes accounting for the powerful iatrogenic effects included active reinforcement for deviant behavior through laughter and social attention, as well as engaging in conversation about deviance, particularly during unstructured periods.

By the same token, opportunities for deviancy training appear to decrease when intervention sessions are highly structured and well-supervised, though more research examining this moderator is needed (Dishion & Tipsord, 2011). Dodge, Dishion, and Lansford (2006) further asserted that aggregating deviant youth within interventions should be avoided where possible, in favor of more mixed groupings, such as within universal school interventions, or family-centered programs. This recommendation is also relevant to youth in the juvenile justice system (Dodge et al., 2006). In a natural experiment involving first-time adolescent offenders , higher rate of recidivism were seen among those who spent the weeks before their final disposition hearing in a residential facility with other young defendants, as compared to those who spent that time at home (Shapiro, Smith, Malone, & Collaro, 2010).

Among adolescents, an area that warrants further exploration is whether peer leaders can be used as positive socializing influences. While anti-establishment behaviors elicit admiration from peers across socioeconomic settings as previously described, there is always a subset of teens (albeit small) who retain peer admiration by occasional rule-breaking, while at the same time, remaining focused on doing well academically and being prosocial toward others. In future research, we will need to learn from these youth about ways in which they, and others like them, might help sway counterparts who gravitate more strongly toward behaviors destructive to others or themselves. Given the established power of negative

contagion effects among adolescent peers, there may well be the potential for parallel "positive contagion" effects that we can harness in future efforts to promote adaptive adolescent outcomes.

The value of further exploring "positive peer contagion" is evident in the "Names Can Really Hurt Us" anti-bias, anti-bullying program implemented with over 65,600 high school students in Connecticut over the last 11 years, under the sponsorship and supervision of the Office of the Anti-Defamation League. Guided by league facilitators, students speak candidly about diverse bullying behaviors and their consequences, addressing topics ranging from gossip and physical harassment, to homophobia and racism, substance abuse, self-mutilation, and suicide. The goals are to empower victimized students to stand up for themselves, to teach bystanders to become allies, and to develop empathy among the bullies themselves. Qualitative data and the students' willing participation rates conjointly attest to the promise of the "Names" program (see Hirshey, 2007).

Aside from peer group members, relationships with informal mentors can serve important protective functions, as seen in evidence from the Big Brothers Big Sisters of America (BBBSA) movement, a program that typically targets youth aged 6 to 18 years from single parent homes. Service delivery is by volunteers who interact regularly with a youth on a one-to-one basis, and are supervised on a monthly basis for the first year, and on a quarterly basis subsequently. Benefits of BBBSA have included reductions in substance use and better engagement with school, and improved mentees' relationships with parents accounted for some of the improvements in adjustment (Rhodes, Grossman, & Resch, 2000).

Continuity of the mentor relationship, however, is critical in ensuring sustained benefits. In a randomized trial of BBBSA (Herrera, Grossman, Kauh, & McMaken, 2011), mentees' showed improved academic achievement as compared to non-participating peers. However, this effect was seen only as long as the mentoring relationship was active, a finding consistent with earlier reports that longer mentoring relationships are associated with better outcomes (Grossman & Rhodes, 2002).

Salutary effects can derive from youths' religious affiliations as well (Elder & Conger, 2000; King, Carr, & Boitor, 2011). Studies by Miller and her colleagues have shown that religious adolescents have attenuated risk for problems such as depression and substance use (cf., Miller & Gur, 2002). Mechanisms posited include indirect effects involving "primary socialization" sources (in that religion shapes major socializing influences including parents, peers, and school), as well as direct ones (aiding in the adolescent search for meaning, purpose, and identity in life). Research has also suggested that religion and spirituality can have particular benefits for adolescent girls in protecting against depression (Desrosiers & Miller, 2007), possibly reflecting the effects of high social support.

The benefits of community supports for at-risk children are paralleled by those among their parents: Parents with informal social support networks show better psychological well-being and more effective parenting (Ammerman et al., 2005). Kotchick, Dorsey and Heller (2005) tested the role of social support in the context of neighborhood stress over a 15-month period with a sample of single, African American mothers. For those mothers who felt they received low levels of support from friends and family, neighborhood stress and related psychological symptoms were detrimental to their parenting behaviors over time, while parenting was less negatively affected among mothers who felt well supported.

Intervention trials further establish indirect benefits to children of support received by primary caregivers. For example, immediately following a supportive, relationship-based parenting group intervention with low-income, drug abusing mothers (Luthar, Suchman, & Altomare, 2007), significant improvements were seen in the women's personal adjustment as well as their children's reports of mothers' maltreating behaviors; this, despite the fact that the children were not directly involved in the intervention. Results from the Keeping Families Strong program for families affected by maternal depression have shown multiple positive effects, with improvements in maternal mental health, and in overall family functioning, apparently leading to improved adjustment among the children (Valdez et al., 2011).

Support gleaned from involvement in religious communities can also be beneficial for mothers. In a multi-city study of low-income women, Hill, Burdette, Regnerus, and Angel (2008) found that more frequent attendance at religious services was associated with greater satisfaction and less stress in their

parenting role. Similarly, frequent attendance at religious services has been linked with lower parenting stress and also fewer behavior problems in children (Petts, 2012). Associations such as these might reflect, in part, the social supports experienced by those who attend church regularly, as church attendance provides a place for families to gather and socialize. In addition, intrapersonal processes, such as reliance on relatively effective coping strategies, might be implicated.

The connotations of religiousness are not invariably positive, however; in fact, it can sometimes exacerbate vulnerability among youth and adults. King has cautioned that ill-effects can derive from religious contexts that inhibit intellectual or identity exploration, or that encourage exclusion of others (see King, this volume; King et al., 2011). Similarly, strong beliefs in the supernatural may sometimes take the form of fatalism, and if at-risk youth and parents come to believe that nothing can be done to improve their life situations, this can create formidable barriers to improving the overall quality of their lives (Luthar, 2006).

Neighborhoods: Protective Processes. Moving on from the relatively proximal extra-familial contexts of school, peers, and interpersonal supports to those more distal: aspects of the wider community may also play an important role in buffering risk for children (Gorman-Smith & Tolan, 2003; Ungar et al., 2013). Particularly important are social organization processes in the neighborhood, including levels of cohesion, a sense of belonging to the community, supervision of youth by neighborhood adults, and high participation in local organizations. Such social processes can help buffer the impact of structural characteristics of the community (e.g., poverty or violence) either by directly benefiting children themselves, or affecting parents and families (Leventhal, Dupéré, & Brooks-Gunn, 2009).

Direct benefits to children are seen in Gorman-Smith and Tolan's (2003) findings that when inner-city families are lacking in warmth and closeness, children's vulnerability can be reduced somewhat if they feel a sense of belonging and support in the neighborhood. Indirect benefits for youth have been found in longitudinal research, through, and in tandem with, family factors. For example, research in the United Kingdom showed that children in disadvantaged communities benefited significantly from collective efficacy in their neighborhoods, which was operationalized as high trustworthiness and cohesiveness of community members, and the likelihood that local adults would intervene to disrupt altercations or protect local resources (Odgers et al., 2009). Even after controlling for several family factors, collective neighborhood efficacy was associated with fewer antisocial behaviors among children as they started school, though the relationship did not hold when the children were in middle childhood. The authors noted that given the young age of the children at the earlier assessments, the benefits were likely to be transmitted via the impact of positive neighborhood processes on parents.

Further evidence for indirect effects are seen in longitudinal data on adolescents at risk for delinquency: When parents felt more connected to their neighbors, their children were less likely to report involvement in violent altercations by late adolescence (Kurlychek, Krohn, Dong, Penly Hall, & Lizotte, 2012). Similarly, among participants in the Project on Human Development in Chicago Neighborhoods (PHDCN), high neighborhood collective efficacy strengthened the effect of high family attachment – feeling emotionally and socially supported by family members – which in turn protected against adolescent suicide attempts (Maimon, Browning, & Brooks-Gunn, 2010).

Relocating out of at-risk neighborhoods can also yield some benefits for youth. In the PHDCN study, adolescents who moved from neighborhoods with high violence and low collective efficacy to homes outside the city manifested fewer violent behaviors, lower exposure to violence, and higher self-efficacy, as compared to those teens who remained in such neighborhoods. No such effect was found for youth who made the smaller change of relocating to other neighborhoods within the city (Dupéré, Leventhal, & Vitaro, 2012). These findings appear to reflect another instance of multiple systems at work. As Sharkey and Sampson (2010) point out, youth who move to communities outside of the city engage with a different school system and may leave behind other negative structural factors such as racial segregation, while those who remain in the city stay connected to the same systems. Consistent with these suggestions, Dupéré et al.'s (2012) analyses indicated that attitudes toward school and future educational plans mediated the effect of neighborhood change on self-efficacy, suggesting that youth felt more positive about their educational opportunities in their new communities.

The impact of neighborhood relocation may also differ according to gender. Longitudinal results from the randomized, experimental Moving to Opportunity study -- in which families in disadvantaged neighborhoods in several cities were provided with vouchers to enable them to move -- indicate benefits for adolescent girls, but not boys. In follow-up studies conducted between four and seven years later, girls who moved to low-poverty neighborhoods had better mental health and educational outcomes, and reported fewer high-risk behaviors, than girls who remained in disadvantaged, high poverty neighborhoods. No advantage was found for boys who relocated, compared with their counterparts who did not (see Leventhal & Dupéré, 2011). In explaining such findings, researchers have suggested that girls may benefit from reduced exposure to sexual harassment in their new, less-disadvantaged neighborhoods, and that boys who are already teenagers when they move may bring their patterns of socializing with them (which may be less normative in their new setting), and may also be removed from the positive influence of male kin (Clampet-Lundquist, Edin, Kling, & Duncan, 2011). Adolescents boys in particular who move out of disadvantaged neighborhoods may therefore require greater support to benefit from this transition (Leventhal & Dupéré, 2011).

Within low-income neighborhoods, youth-serving community organizations, such as those providing organized after-school activities, can provide critical protective functions, associated with lower rates of aggression and violent crime as well as positive social and emotional outcomes (Mahoney, Harris, & Eccles, 2006). The protective potential of youth organizations is well illustrated in the 5Cs model of Positive Youth Development, which posits that young people are better able to develop into healthy and constructively engaged citizens when their strengths are aligned with and supported by resources in their families, schools and communities, promoting development of the 5Cs – character, confidence, connection, competence, and caring (Lerner, Dowling, & Anderson, 2003). Within this model, organizations and programs for youth can be conceptualized as one element making up important ecological assets of the neighborhood, besides resources such as high average education and employment levels, recreation spaces, and neighborhood groups. Analysis of a subset of data from the 4-H study of Positive Youth Development (see Lerner, von Eye, Lerner, & Lewin-Bizan, 2009), based on the 5 Cs model, showed that for girls in neighborhoods low on ecological assets in general, participation in youth programs as 10-year-olds was associated with higher scores on a measure of the 5Cs, and lower depressive symptoms and risk taking behaviors, as 12-year-olds. However, the same was not found for boys. This finding lends further evidence for the iatrogenic effects of exposure to deviant peers to which boys may be particularly vulnerable, and underscores the importance of structured after-school activities for boys in particular.

Finally, the benefits of structured community activities can be amplified if parents are actively engaged with the programs. To illustrate, Mahoney and Magnusson (2001) reported that among at-risk boys in Sweden, fathers' involvement in community activities in late childhood was associated with lower risk for youths' criminal involvement by the age of 13 years. These findings were seen as possibly reflecting the effects of more conventional values of community-involved fathers, their greater personal resources, or their higher levels of involvement in their sons' lives.

Individual Attributes: Malleability within Contexts

In overviewing the triad of vulnerability and protective processes in resilience, we reiterate that children's own attributes should be considered after aspects of their families and communities, for three critical reasons (see Luthar, 2006). From a basic research perspective, several studies – described in detail below-- have shown that many positive child attributes are themselves dependent on influences from the proximal and distal environments. From an applied perspective, it is logical that interventions to foster resilience should focus less on what young children are able to do for themselves, and more on what adults must do to bolster the children's own efforts. From a policy perspective, finally, to place primary emphasis on child attributes could carry the risk that public debate will shift away from the major environmental risks that affect children, leading to decreased allocation of resources to ameliorate these risks (cf., Luthar & Brown, 2007; Ungar, 2013). It is these considerations -- rather than any devaluing of children's own strengths -- that lead us to place emphasis on families and communities in transaction with the children, rather than the other way around.

To underscore the perils of overemphasizing children's own attributes, we begin this section by presenting evidence on the malleability of some of the most commonly cited "protective child attributes", starting with intelligence (probably the single most often mentioned asset). Studies on diverse risk groups find that individuals with high IQ tend to fare better than others (Luthar, 2006; Masten & Narayan, 2012). Among four to six year old children experiencing homelessness, Masten et al. (2012) showed that superior executive functioning (related to high IQ) was associated with relatively positive social and academic development. At the same time, evidence on the potency of environmental influence is seen in Sameroff and colleagues' early findings showing that children facing eight or nine environmental risk factors scored more than 30 points lower than children with no risks. Twenty-six percent of preschoolers in the high-risk group had IQs below 85, whereas none in the zero-risk group did (Sameroff et al., 1987).

Powerful testimony on this issue lies in Rutter and colleagues' data from "natural experiments" involving adoptees from Romanian orphanages (Rutter et al., 2010). Caregiving conditions in these orphanages ranged from poor to appalling: Infants were usually confined to cots, there was no personalized caregiving and few toys, feeding often occurred via propped up bottles, and washing by hosing the babies down. When these children entered into adoptive families in the United Kingdom, many showed developmental retardation, with over half functioning in the cognitive/intellectual disability range. Longitudinal evaluations then showed catch-up effects, wherein babies who were adopted by two years of age lost their profound early deficits, and by the age of four, came to show near-average developmental status. Despite these ameliorative effects, however, head circumference for the adopted children remained about 1 *SD* below the normal population means by age 11, suggesting the incomplete nature of this catch-up effects by this age (Rutter et al., 2010).

Other researchers have shown that disturbances in parents' functioning can affect child intelligence. Maternal depression, for example, has been linked with relatively low child cognitive functioning both in the post-partum period (Kingston, Tough, & Whitfield, 2012) and in the preschool years (Hughes, Roman, Hart, & Esnor, 2013). Among high-risk African American and refugee adolescents, youth exposed to domestic abuse showed a decrease in academic success, as abandonment trauma and direct abuse was linked to a decrease in IQ (Kira, Lewandowski, Somers, Yoon, & Chiodo, 2012).

In terms of underlying mechanisms, environmental deprivation may engender cognitive deficits because of a lack of appropriate stimulation, and even adverse effects on brain development (see Hedges & Woon, 2011). Depressed and psychologically withdrawn caregivers, for example, tend to provide little of the stimulation that fosters the development of cognitive skills and expressive language, and deficits in the mother-child relationships can constrain children's developing sense of self-efficacy and agency, in turn inhibiting their active exploration of the environment (Cicchetti & Toth, this volume). Biologically, we know that stress generates high levels of cortisol and catecholamines, and chronic activation of the stress response can lead to the death of neurons in specific brain regions, with these effects most profound during early childhood when neuroplasticity is high (Cicchetti & Toth, this volume). Results of animal studies clearly establish that early exposure to enriched rather than deprived environments is associated with substantial differences in animals' neurochemical, physiological, and neuroanatomical functioning (Gunnar, this volume).

One might argue that high IQ would remain more consistently beneficial later in development than in early childhood; while probably true, the evidence is not unequivocal even at older ages. Up through middle childhood, it does seem that bright children tend to show stability in everyday competence despite increasing levels of life stress (e.g., Garmezy et al., 1984). On the other hand, among different samples of low-income adolescents, intelligence was not found to be protective. To the contrary, bright youth seemed to be more sensitive than others to negative environmental forces (Gutman, Sameroff, & Cole, 2003; Luthar, 1991). In other words, intelligent adolescents fared far better than did less intelligent ones when life stress levels were low, but when stress was high, they lost much of this advantage. More strikingly, among adults, Fiedler (1995) found that high IQ people showed leadership success under conditions of low stress, but that when stress was high, IQ was inversely correlated with success. Similar findings have been shown for high ego development, a construct closely linked with

high IQ (Luthar, 2006).

Collectively, findings such as these have been viewed as suggesting that the manifest "benefits" of innate intelligence vary depending on aspects of the proximal environment. To illustrate, in areas of concentrated poverty with a dearth of conventional means of achieving self-worth (e.g., good grades, productive employment), intelligent, creative teenagers may use their talents in ways that bring more immediate gains -- such as illegal entrepreneurship -- rather than through striving for excellence at school (Gutman et al., 2003). Consistent with this suggestion, Loeber and colleagues (2012) found that youth with high IQ and high impulsivity showed greater law breaking and delinquency over time than did low-IQ individuals (although the effects were attenuated as the adolescents aged).

Rather than IQ as measured by standardized intelligence tests, it is probably several assets that are usually associated with cognitive and overall developmental maturity that confer protection against adversity. These include the ability to come up with different problem-solving strategies; the capacity to generalize learning across situations; the unfolding of high motivation to explore and master new challenges; the capability for long-term planning; and finally, histories of various successful experiences, academic and interpersonal, that tend to derive from the aforementioned skills (Luthar, 2006; Masten, 2011; Rutter, 2012; Shonkoff & Phillips, 2000).

There is accumulating evidence concerning the protective role of such assets derived from research on diverse at-risk groups. In an inner-city sample, for example, Noam and Hermann (2002) noted the protective potential of both insight and the capacity to use problems to motivate positive change. Among children who had experienced the death of a parent, Haine, Ayers, Sandler, and Wolchik (2008) found that the ability to reframe negative, unhelpful beliefs associated with the parents' death (into more positive thoughts) was of significant help through the grieving process. Beardslee (2002) found that among children of depressed parents, well-functioning youth had good cognitive awareness of what they were facing -- they recognized the parents' illness, knew that they were not responsible for it, and saw themselves as separate from their parents. In addition, they were able to put this experience in words, and could articulate strategies to offset the effects of the illness on them (e.g., forging close relationships with non-family adults). Hauser and colleagues' (2006) follow-up of individuals who were psychiatrically hospitalized as adolescents showed that major attributes of those who seemed resilient later in life included self-reflection or high awareness of their feelings and thoughts; self-efficacy or agency in making conscious choices about their lives; self-complexity in recognizing multiple facets to different situations; and persistence and ambition in education and careers.

Vaillant (2012) has established that tendencies to use developmentally mature defenses -- such as altruism, suppression, humor, and sublimation – are associated with relatively positive outcomes, over and above the effects of IQ, education, and social class. In a long-term follow up study of seventy three adolescents inner-city boys, and a socioeconomically matched group with an average IQ of 115, Vaillant and Davis (2000) found that at the age of 65, one half of the low-IQ men were comparable to the high IQ group in terms of their own incomes and their children's levels of education. These resilient low-IQ men were far more likely than their low-IQ, poor outcome counterparts to use predominantly adaptive defenses, with the latter group more often using maladaptive defenses such as turning against the self, projection, and fantasy.

Finally, there is accumulating evidence on the benefits of high emotional intelligence – the ability to perceive and express emotions, to reason about and use them, and to manage them to foster personal growth (Mayer, Roberts, & Barsade, 2008; Rivers et al., 2012). This construct is linked to higher social skills and fewer behavior problems in childhood (Mayer et al., 2008; Rivers et al., 2012), and among older youth, is associated with lower substance use and better academic grades (Parker, Summerfeldt, Hogan, & Majeski, 2004; Trinidad & Johnson, 2002).

Based on the accumulated evidence, therefore, there are two major conclusions about the role of intelligence in resilience. First, highly intelligent individuals are likely to reflect what Belsky and Pluess (2009) call "differential susceptibility", that is, greater sensitivity to good *and* bad environmental influences. Second, rather than high IQ per se, resilient outcomes likely rest on more adaptive "meaning

making" (Rutter, 2012) –individuals' phenomenological interpretations of events in their lives – with generally superior problem-solving abilities, better planning for future events, and more effective, developmentally mature coping styles.

Environmental Influences on Diverse Personal Assets. The previously described evidence on intelligence is paralleled by similar evidence on temperament, which has also been shown to confer protection against stress (Chen, this volume Luthar, 2006; Masten, 2001). Benefits have been found not only in relation to psychological and behavioral indices, but also biological ones. To illustrate, children low on behavioral inhibition may react less to stress than others, as suggested by evidence of resting right frontal EEG activation in inhibited children (Calkins & Fox, 2002), a pattern that is linked with tendencies to respond to stressors with negative affect or depression (Cicchetti, 2013).

Several studies have established the deleterious effects of poor self-regulation from early childhood onwards (see Shonkoff & Phillips, 2000). In infants of families facing high adversity, lack of self-regulation at the age of 12 months was linked with increased behavioral problems over time (Halligan et al., 2013). Among low-income children, poor emotion regulation at the age of 3 ½ was related to low self control on entry into first grade (Gilliom, Shaw, Beck, Schonberg, & Lukon, 2002) and among children with low emotional knowledge at first grade, significant increases in internalizing symptoms were seen over the next four years (Fine, Izard, Mostow, Trentacosta, & Ackerman, 2003). In a study of adolescents, those with high negative emotionality and low regulation exhibited the most maladaptive responses, including aggression, anger, and distress (Laible, Carlo, Eye, & Parker, 2010). Overall, findings suggest that children with poor self-regulation tend to get into a cycle where dysfunctional social exchanges lead to isolation and thus sadness, and these emotions in turn jeopardize future interactions with others.

Whereas temperamental differences can be seen as early as infancy and they do show continuity over early childhood, both the manifestation and ramifications of temperament can be modified by environmental features. As Rutter (2000) noted, scientists have long moved past erroneous assumptions that "constitutional" factors are unalterable. Some children do have a tendency to be more impulsive or oppositional than others, but their interactions with significant others shape the behavioral conformity they display. In a similar vein, some children are temperamentally more exuberant than others – and some feel negative emotions more intensely than do others -- but the external manifestation of these emotions, and whether they lead to problematic social interactions, depends on the degree to which the children can modulate their emotions (Eisenberg et al., 2004). And children's abilities to modulate or inhibit the expression of emotions depend – as will be described in the paragraphs that follow – on the nature of their interpersonal relationships, particularly those early in life.

Emerging self-regulation depends squarely on relationships (see Thompson, this volume). As Sameroff (2010, p.15) has underscored, "self-regulatory capacities are heavily influenced by the experience of regulation provided by caregivers…This regulation by others provides the increasingly complex social, emotional, and cognitive experiences to which the child must self- regulate and the safety net when self-regulation fails". Consistent with these assertions, among young boys in low-income families, secure attachment to mothers and positive maternal control at the age of 1 ½ years predicted effectiveness of emotion regulation at the age of 3 ½, and this in turn was related to capacities for self control at around six years of age (Gilliom et al., 2002). Beyond early childhood, Crossley and Buckner (2012) demonstrated that positive parenting practices were related to effective self-regulation skills in older children and adolescents living in poverty.

Other than IQ and self-regulation, there is parallel evidence showing that many other child attributes commonly labeled as protective factors are themselves shaped by the environment. Self-efficacy is strongly influenced by the degree to which adults encourage or hinder the child's attempts at manipulation and control (Bandura, 1997). Positive self-esteem can be protective for at-risk children but is itself affected by parental warmth and communication (McClain et al., 2010). Internal locus of control is often beneficial but chronic ill-treatment by parents or teachers sharply reduces children's capacities to maintain internality of control (Cicchetti & Toth, this volume; Skinner, Zimmer-Gembeck, & Connell, 1998). Finally, spirituality can protect against depression and related problems, as can empathy and

altruistic behaviors (Beardslee, 2002; Eisenberg & Spinrad, this volume; Miller & Gur, 2002; Miller et al., 2012; Zhou, Valienti, & Eisenberg, 2003); these assets, in turn, rest on a strong sense of ethical values transmitted to the child, and then reinforced, by significant others in the family and community.

The preceding examples not only resonate with cautions in highlighting "protective child attributes" that are continually shaped by the environment (see Hanson & Gottesman, 2012; Luthar et al., 2000; Ungar, 2012), but underscore the importance – indeed, the necessity – of involving significant caregivers in child-focused interventions. In any efforts to bolster children's own competencies, long-term success can be attained only when programs simultaneously involve adults in the children's natural settings, including parents or teachers (Luthar & Cicchetti, 2000; Ungar et al., 2013). This is true even among children well past the infancy and preschool years, as seen in the exemplary work of Sandler, Wolchik and colleagues. Working with school-age children of divorce, these investigators designed an intervention with separate programs for mothers and for children. Follow-up assessments, conducted several months after the program and then six years later, indicated that experimentally-induced improvements in the mother-child relationship did lead to a reduction in children's mental health problems, whereas working with children's coping skills alone did not. The investigators credit changes in the mother-child relationship for later increases in program effects on adolescent self-esteem and effective coping, via cascading effects (Wolchik, Schenck & Sandler, 2009).

The State of the Science: Issues of Consensus, Controversy, and Future Directions

In this final section of our chapter, we review the state of the science of resilience in contemporary times, following almost seventy years of research. In turn, we discuss issues about which there is now broad consensus, and which can now be put to rest. Following this, we review major issues about which there are currently differing perspectives by scientists in the field, which pertain to broad research directions most profitably pursued at this stage. We conclude by reviewing salient directions for future interventions on resilience.

<u>**Issues Established or Confirmed**</u>

There are several issues that have been amply demonstrated, and are now considered "givens" in the field of resilience. The first is that this is a field of research and scholarship that is fundamentally applied in nature (Luthar & Brown, 2007: Yates & Masten, 2004). This theme is recurrently emphasized in a special issue of the journal *Development and Psychopathology,* dedicated to Norman Garmezy, major progenitor of research on resilience. Masten and Tellegen (2012, p. 346) underscored Garmezy's recognition of the significant "potential for informing prevention, practice, and policy if the pathways that led away from psychopathology could be understood;" Cicchetti and Rogosch (2012) noted that he advocated the study of protective processes toward informing models of primary prevention. Michael Rutter (2012) pointed to Garmezy's central goal of understanding, through rigorous research, how we might best help children who contend with serious stress and adversity. Rutter's (1987) own highly influential early paper on protective mechanisms was critical in illuminating how our science can most effectively inform interventions (Werner & Smith, 1992). Similarly, describing her interest in uncovering protective processes across diverse high risk-contexts, Emmy Werner underscored that, "If we encourage and nurture these dispositions and competencies in our children as best we can, we have a basic survival kit for meeting adversities that tax the human spirit" (Werner & Smith, 1992, p. 204).

Aside from the fact that the central goal of resilience research is to benefit humanity, a second issue of consensus is that "resilience does happen"; we do not need more research that simply establishes its occurrence. Across all risk circumstances and age groups, there is inevitably a subset of individuals who show relatively positive adaptation. Some retain well-being right after exposure to the stressor under study; others falter for a while but then bounce back to health.

Third, the core findings derived from accumulated research is that resilience rests fundamentally on relationships (Luthar, 2006). This is true for adults as much as children, as evident in pithy assertions, in research reviews, that "Resilience is social, after all" (Zautra, 2014), and "Other people matter" (Peterson, 2006, p. 249).

Fourth, it is clear that there are multiple transactional systems involved in children's resilient

functioning. Proximal and distal environments affect the child, and the developing child in turn affects each of these, as youths' behaviors affect their parents and their teachers. Furthermore, different aspects of the environment influence each other, as community cohesion affects parents who, in turn, contribute to cohesiveness as opposed to disorganization in neighborhoods.

Fifth, resilience is not fixed over time. At-risk children who reflect positive adaptation can falter over time if there are unremitting stressors in their environment, just as those who reflect maladjustment can show dramatic improvements with positive changes in their caregiving environments.

Sixth, overt "successful adaptation" among at-risk children can coexist with non-trivial disturbances in adjustment; the more serious the adversity experienced, the more likely that some problems will coexist (unless there are major corrective experiences). These covert forms of maladjustment can include not just symptoms of depression or anxiety as was established decades ago, but also, as reflected in more recent evidence, potentially serious problems of physical health (Brody et al., 2013; Felletti & Anda, 2010).

These last two issues were noted at the very outset of this chapter, but they warrant reiteration in this concluding section as there are major policy implications associated with declarations on "rates" of resilience (Luthar & Cicchetti, 2000). Scientists must be extremely cautious about making summmary statements in this regard, because "diagnoses" of resilience obviously depend on the (necessarily limited) criteria that are used to define risk-evasion within a particular study. As Luthar and Cicchetti (2000) emphasized, for those of us whose science can significantly affect social policy -- with real implications for decisions to enhance or reduce external resources for highly vulnerable groups – it is imperative to maintain the very highest standards of self-scrutiny in our scientific research and conclusions.

Issues Unresolved: Critical Directions for Future Research

Given the current state of the science, there are two major potential directions for future research on resilience. As these involve sharply different priorities in scientific foci – and attendant allocation of resources -- we consider in some detail the likely yield of each toward effectively maximizing the well-being of at-risk youth and families.

The first direction involves multi-level studies that include biological indices as well as psychosocial ones. Starting around the turn of the century, there were several calls for the incorporation of biology into models of resilience (e.g., Charney, 2004; Luthar et al., 2000; Masten, 2001), given major advancements in studies of biological processes including technologies to manipulate the genome, examine endocrine functioning, and image the brain. Thus, multi-level models were considered important to illuminate biological processes implicated in psychopathology and well-being, and possibly to get some insights into constraints within which environmental influences operate.

Over time, the accumulated evidence on biological processes has not only vastly enriched the basic science knowledge-base on developmental processes, but has been invaluable in advocating for the investment of resources in preventive interventions (Luthar & Brown, 2007). For decades, psychologists have noted the long-term negative effects of deleterious caregiving environments on children's adjustment. Findings based on self-reports or observed behaviors, however, could be dismissed as partly reflecting personal choices or motivations. More persuasive as "objective evidence" are data that significant early adversity has substantial ill-effects on the brain's architecture, and on the physiological systems implicated in coping. Equally powerful is evidence that sensitive and responsive caregiving can substantially reduce these negative effects of toxic stress (National Scientific Council on the Developing Child, 2005).

From the standpoint of advancing future applied work in the field of resilience, however, the yield of studies on biological mediators and moderators remains unclear (Luthar & Brown, 2007). As noted earlier, the central goal of resilience research is to make a difference via a concerted focus on "modifiable modifiers" (Garmezy, 1971), and changing biology is not in the realm of psychologists' expertise.

To consider this issue more carefully, let us consider the three aspects of biology that have most often, in the last decade, been discussed in the context of resilience: Brain plasticity, stress-reactivity (HPA axis), and gene by environment (G x E) interactions. Beginning with the first two, studies in both

neuroscience and neurobiology have established significant physical changes in reaction to the environment. As described earlier in this chapter, the quality of early environments affects neural networks and brain size, and these changes in the brain, in turn, have major implications for vulnerability to psychopathology (Cicchetti & Toth, this volume). Neurobiological studies similarly show that the HPA axis is negatively affected by early adversity and conversely, that sensitive and supportive caregiving significantly buffers the developing HPA axis (Gunnar et al., this volume)

In both these instances, it would seem that the biological changes documented are more accurately described as *markers* of vulnerability or resilience, rather than "causes" that we might effectively alter in behavioral interventions. When institutionalized children show improvements in grey matter of the brain after their adoption (cf. Sheridan, Fox, Zeanah, McLaughlin, & Nelson, 2012) or demonstrate normal growth trajectories for head circumference (Rutter et al., 2010), for example, they also show improvements in developmental quotient scores, and in various aspects of psychosocial functioning. Thus, changes in the brain's structure are among many markers of improved functioning. Similarly, children who show poor stress regulation via cortisol levels are also those likely to show poor regulation on psychological and behavioral dimensions, for example, via faulty attributions of others' behaviors (Ciccheti & Toth, this volume; Gunnar et al., this volume). Again, dysregulation of the HPA axis may more aptly be characterized as a marker rather than a "modifiable" risk-modifier.

As these biological changes inextricably co-occur with, and are manifested in, children's behaviors and affect (Cicchetti, 2013; Rutter, 2012; Sameroff, 2010) – dimensions that are far easier and less expensive to assess -- one has to question the utility of measuring them in work that is centrally focused on promoting resilience. Intensive study of such processes is of obvious value to basic developmental science and to researchers who are committed to developing effective psychopharmacological treatments. But for those of us with expertise in psychological, behavioral interventions, the inclusion of biological mediators and moderators, in hopes that they will substantively and usefully guide future interventions, remains questionable (see Luthar & Brown, 2007; Miller, 2010).

We next turn to G x E interactions, the third aspect of biology increasingly mentioned in the context of resilience. Again, we do not yet have compelling evidence that this is highly relevant to the field of resilience. Effect sizes are very small in these interaction effects, and even when they are statistically significant, it is not necessarily the risk-exposed child but rather the non-exposed child who is helped (cf., Cicchetti & Rogosch, 2012).

Most importantly, there is no way that behavioral scientists are going to change the "G" part of this equation; at the same time, there is much that we can and should do to address potent risks in the "E" part. Discussing G x E research on child maltreatment, Cicchetti and Rogosch (2012, p. 425) have cautioned that "gene variation is unlikely to be useful to identify maltreated children who may be more in need of intervention," even as they underscore the urgent need for concerted prevention efforts to alter the child's deleterious environment.

In future exhortations for the study of biological processes (and discrete psychosocial processes) toward promoting resilience, therefore, it will be essential for researchers to explicate clearly (a) the modifiability of each of the vulnerability / protective risk mechanisms posited as well as (b) the likely magnitude of their respective effects. This is particularly crucial at a time when national funding priorities -- and concomitantly, developmental research foci -- have veered disproportionately to a focus on biologically-based research on mental health (see Eisenberg, 2014; Luthar & Brown, 2007; Miller, 2010; Sameroff, 2010). As many as 75-80% of American children and adolescents who need mental health services today do not receive them. For the thousands of at-risk children and families lacking any kind of health insurance, we will need compelling evidence that we can, in fact, hope for individualized tailoring of mental health interventions for children according to their unique psychobiological or genetic profiles, and that these will yield substantial improvements in their well-being.

We emphasize that our central point here is by no means to be "psychosocial evangelists" (Rutter, 2006, p. 224), but to be aware of the potential costs to prevention science. A large-scale, collective insistence on including biology in our research designs (not to mention intervention trials) will inevitably detract substantially from bringing promising behavioral interventions to scale. Our central messages,

therefore, are for those whose scholarship and research, based in an understanding of transactional, developmental systems, are committed to illuminating effective programs and policies that foster positive human development -- where so very much remains to be done in understanding and changing environmental risks that we know all-too-well to have a profound influence.

Central priorities: Reducing Child Maltreatment. With this applied conceptualization as a backdrop, we now discuss what we believe are the most pressing needs in future research on resilience. We begin this discussion with the single most important potent "vulnerability factor" that has been identified to date, and one that continues to be an alarming problem for today's youth: Maltreatment by parents.

The damage caused by prolonged maltreatment is staggering – this has been repeatedly emphasized (Cicchetti, 2013)– yet, there is a startling lack of understanding about what we can do to reduce it. Little is known about protective processes that substantially reduce risks for maltreating behaviors among at-risk children's primary caregivers, usually – and across settings -- their mothers (relationships with fathers are obviously also important, and are discussed later).

As we know well that depression and stress vastly impair all aspects of mothers' parenting, we need concerted attention to *mothers' well-being as a dependent variable* (cf., Garcia Coll, Surrey, & Weingarten, 1998; Luthar, 2010). A mother who is psychologically depleted cannot consistently express warmth, enforce appropriate limits, and maintain regular schedules in the home, and without respite, will inevitably be in danger of neglecting or maltreating her children and of failure to shield them against maltreatment by others (Luthar & Brown, 2007). Echoing these assertions, Shonkoff and Fisher (2013, p. 1645) argued that "Promoting resilience in young children who experience high levels of adversity depends upon the availability of adults who can help them develop effective coping skills…. Caregivers who are able to provide that buffering protection have sound mental health and well-developed executive function skills in problem solving, planning, monitoring and self-regulation."

Future resilience research must focus, therefore, on disentangling what might significantly minimize at-risk mothers' "ego-depletion", and promote their "ego-replenishment". Knowledge of appropriate parenting behaviors is important but this alone is by no means enough; indeed, mothers who fall short (impoverished as well as affluent) often know what are "bad" or "good" parenting behaviors, but do not have the energy or strength to do what is called for (Luthar et al., 2007; Luthar et al., 2013). Thus, developmental scientists must systematically illuminate what most benefits the well-being of ''mothers as persons'' (Gewirtz et al., 2008; Williams et al., 1987), an overarching construct that shapes all parenting behaviors and interactions with children. Moving beyond our long-standing focus on the many critical ways in which mothers affect their children, we must examine, with equally rigorous science, the processes that most affect mothers' own states of despair versus equanimity.

One might contend that social support is known to be helpful to mothers (as described earlier in this chapter), but at this time, we do not have a clear understanding of which specific forms of support are most beneficial. Existing studies have operationalized support in various ways, including instrumental support such as willingness of family members to lend money or help with child care; emotional support, such as feelings of belonging, emotional security, trust, and nurturance; or combinations of these.

A postulate worth testing in the future is that – as for children – the single biggest predictor of a mother's well-being is whether she feels dependable acceptance and support for herself, as an individual and as a parent. This was long argued by Jane Knitzer (1982, 2000), pioneer in children's mental health, who consistently advocated relationship-based interventions for at-risk mothers. It is a postulate consistent with early findings on low-income mothers that more than the actual receipt of social support, it was the expectation that it would be there if needed, that was more powerfully benefited women's parenting (e.g., Hashima & Amato, 1994). Indeed, it is entirely logical that when mothers feel a sense of psychological safety and of being "tended" themselves (Taylor, 2006), they will function well across multiple parenting behaviors (Luthar, 2010; Rotheram-Borus et al., 2011).

Multi-level, Transactional, Relationship-Centered Models. Future research on resilience must, therefore, be grounded in multi-level, transactional models that have, at the core, the quality of relationships between children and their primary caregivers, with these in turn ensconced within the

contexts of extra-familial support systems (see Figure 1). Reis, Collins, and Berscheid (2000) have provided a useful guiding paradigm in this regard, with the following tenets: (1.) From conception onwards, individuals are nested in social relationships; (2.) Each dyadic relationship is itself nested within a social and physical environmental system; (3.) These systems in turn are embedded in larger societal systems; (4.) All of these systems continually evolve and influence each other over time. Given all we have learned from developmental research on resilience, our primary focus, in the years ahead, must be to illuminate which aspects of the ecological surround most powerfully bolster the single most powerful dyadic relationship affecting children's development, that with the primary caregiver.

Insert Figure 1 about here

In our future efforts to identify exosystemic processes that benefit children's caregivers, developmental scientists will need to collaborate with sociologists and anthropologists with expertise regarding cohesiveness in communities. We will need to draw upon accumulated knowledge – including ethnographic and qualitative evidence (see Weisner, 2005) –about processes that best help to enhance mutual supportiveness among parents in neighborhoods, then derive testable hypotheses, and begin to test these systematically in increasingly sophisticated, multi-level quantitative developmental models.

Research Designs: Within-group and Within-gender Analyses. In terms of research design, we will have to prioritize in-depth studies of salient processes within particular high-risk contexts (see Spencer et al., this volume). The inclusion of "low-risk" comparison groups in resilience research is not just unnecessary, but detracts from resources well spent in disentangling critical protective processes among samples of youth facing major risks (e.g., Hauser et al., 2006; Laub & Sampson, 2003).

The value of within-group studies is well-illustrated in Garcia Coll's work on the "immigrant paradox", wherein first generation immigrants to the United States often fare better than their children, who are more assimilated into American ways (Garcia Coll & Marks, 2011). A mixed-methods longitudinal study of three groups of immigrant families – Cambodians, Dominican and Portuguese – revealed several group-specific processes. The Cambodian children reflected the immigrant paradox, with better academic performance among those whose mothers had recently immigrated to the US. In contrast, for the Dominican youth, higher acculturation to the US was associated with better grades, whereas cultural attitudes had no effects – negative or positive – among Portuguese youth. These differential sets of predictors were likely related to group differences in the degree of contact retained with families in countries of origin (the lowest for Cambodians and highest for Dominicans) and the degree to which they blended in with the mainstream America (the highest for Portuguese, with fair skinned complexions).

In a related vein, developmental research on at-risk parents must entail rigorous exploration of within-gender processes. Whereas mothers are generally primary caregivers across cultures and socioeconomic settings, there are many instances where it is fathers who maintain primary responsibility in raising their children, and we cannot assume that what affects a mother's personal well-being is the same as what affects fathers. In reviews of the literature, Lamb and his colleagues have established that fathers on average spend less time with their children than do mothers, and are involved more in play than in caretaking in some though not all cultures.   In traditional families, fathering may also be more impacted by the quality of the marital relationship (satisfaction and level of support) than is mothering (see Lamb, 2004; Lewis & Lamb, 2003). Accordingly, it will be critical, in future research on resilience, to conduct analyses separately by parents' gender, and instead of using gender-neutral terms about at-risk "parents," to describe patterns specific to fathers and to mothers (see Phares, Lopez, Fields, Kamboukos, & Duhig, 2005; Rotheram-Borus, Stein, & Lin, 2001).

Cross-national interventions further attest to the critical importance of attending to gender-specific needs of at-risk parents.   Randomized trials with families affected by HIV indicated that across countries (United States, Thailand, and South Africa), men typically responded to stress with flight-or-flight responses, and women with tending and befriending (Rotheram-Borus, personal communication, September 12, 2013; Rotheram-Borus et al., 2011). Accordingly, interventions were designed to

accommodate these gender differences in both delivery formats and activities. Community-based "mentor mothers" were most beneficial for affected women, for example, whereas men were more likely to be engaged via group activities such as those involving sports or vocational training.

  Operational Definitions of Core Relationships: Predictors and Outcomes. With all the rich evidence we have on discrete parenting behaviors that foster resilience, we need to do more to disentangle what exactly it is that forms the central, essential ingredients of children's beliefs that they are truly loved and cherished. All of the manifestly resilient children in Werner's Kauai study had "at least one person in their lives who accepted them unconditionally, regardless of temperamental idiosyncrasies, physical attractiveness, or intelligence" (Werner & Smith, 1992, p. 205). In developmental science, we need to finesse how best to operationalize and capture this broad, overarching dimension from the children's own perspectives.

  A critical component is likely to be a steadfast sense of safety; a conviction that the adult will "be there" in times of need. Among youth who experienced considerable disruptions of early foster placement, Dozier and colleagues identified the importance of children's confidence that their caregiver would stand between them and danger. This sense of security was powerful in predicting long-term indicators of well-being (psychological and biological), more so than the quality of early attachments, or whether the caregiver would comfort the child when distressed (Dozier, Lindhiem, & Ackerman, 2005). Resonant with these research findings is the description of his mother, by NBA star, LeBron James – who grew up in dire poverty, never met his father, and moved 12 times between the ages of 5 and 8. "Whatever my mom could do or could not do, I also knew that nobody was more important in her life than I was. You have no idea how much that means when you grow up without so many of the basic things you should have. You have no idea of the security it gives you, how it makes you think, 'Man, I can get through this. I can survive'" (James, 2013, cited by Manfred, 2013).

  In future research on resilience, it will be important to capture this sense of felt security not just in relation to mothers and fathers but also with other adults, and across different developmental periods. Our studies thus far have tended to focus on relationships within particular ecological contexts, but rarely, simultaneously across multiple levels. It would be useful to capture the degree of overall security that the child subjectively experiences, considering not only parents but also teachers, mentors, extend kin, and other adults. Just as cumulative risk scores explain high variance in maladjustment, it is plausible that "cumulative love" scores will account for high variance in resilient adaptation.

  Implicit in the aforementioned suggestions is the importance of capturing children's own perspectives on different socializing influences. A widespread tenet of developmental science is that self-report data are biased and thus non-optimal, but in resilience research, there must in fact be concerted focus on youths' phenomenological, subjective interpretations of their own realities (Spencer et al., this volume). The power of contextual factors, arguably, rests largely on the psychological meaning given them by the individual (Rutter, 2012). Emphasizing this point in the context of school climate, Deci and Ryan (1987) noted that if a given child were to perceive her teacher as being highly controlling (regardless of others' ratings), this child could relate to the teacher in ways that lead the teacher to be more controlling with the child, resulting in a mutually exacerbating pattern.

  It is important to note, furthermore, that the "problem of shared variance" is easily corrected for in multivariate analyses that include other reliable and valid self-report indicators. To illustrate, with youth's self-reported distress as outcomes, multivariate regressions can simultaneously consider the child's felt closeness to mothers and to fathers, alienation from each parent, monitoring and supervision, as well as perceived criticism. These multiple predictors clearly partial out shared method variance due to self-report of predictors and outcomes, and will illuminate the unique predictive power of each predictor variable (see Luthar & Barkin, 2012).

  Obtaining children's own perspectives is critical not just in assessing the quality of their relationships (predictors), but also in capturing intrapsychic aspects of their own adjustment, including positive as well as negative dimensions. In studies of resilience of children and youth thus far, we have assessed internalizing and externalizing symptoms, but have neglected indices such as subjective well-being, personal equanimity, optimism, and orientation to intrinsic goals such as personal growth (Luthar,

Lyman & Crossman, 2014).

As we expand our measurement of self-reported adjustment domains, so too must we expand the domains in which we seek others' ratings, to include – indeed, to prioritize – perceptions of kindness, compassion, and social justice (see Killen, this volume). In our behavioral measures of "doing well", resilience researchers have relied chiefly on adults' and peers' judgments of whether children adequately meet stage-salient societal expectations, such as getting along with peers, conforming at school, achieving acceptable grades, or holding a job. What is missing are behaviors reflecting proactive generativity, or doing for the greater good – behaviors that are not just positive outcomes in themselves, but also carry the potential to engender cumulative benefits over time. Among the children of Kauai, youth who demonstrated resilient adaptation as adults were those who, "At some point in their young lives, usually in middle childhood and adolescence…were required to carry out some socially desirable task to prevent others in their family, neighborhood, or community from experiencing distress or discomfort" (Werner & Smith, 1992, p. 205). Similar findings are evident in Elder's longitudinal research on youth growing up in the Great Depression, showing that the assumption of new responsibilities in the family was beneficial for adolescents (Elder & Conger, 2000), possibly reflecting "steeling" effects of successfully coping with early family adversities (Rutter, 2012).

Obtaining significant others' judgments of altruism and social justice must be prioritized in future studies of resilience, among youth and adults alike. In adulthood, Little (2011) has argued that the most compelling definition of a "life well-lived" is not just self-reported health and happiness, but when the person is judged as committed to doing for others, with positive contributions to society. Similarly, generativity can and should be considered a core positive outcome in operationalizing resilience among children and youth. If our ultimate goal is to promote the well-being of humanity or a "civil society" (Lerner et al., 2003), then humanitarian acts must be a central outcome in how we define children's positive outcomes in the science of resilience (Luthar et al., 2014).

Intervention Needs: Understanding Mechanisms of Change and Going to Scale

As with directions for basic research on resilience of parents, we need to disentangle the most powerful underlying active ingredients in parenting interventions that have proved to be effective. Again, it is plausible that over and above learning particular skills, it is improvements in mothers' overall well-being, within the context of supportive relationships, that is an indispensible "engine" of change. This is suggested by the core components of many existing evidence-based programs. To illustrate, Webster-Stratton's (2001) the Incredible Years intervention provides training to improve parenting skills and children's school readiness, while helping parents' cope with their personal problems; in this program, connections with "buddies" from parent groups allow members to create valuable support networks (Borden, Schultz, Herman, & Brooks, 2010). Ammerman and colleagues' (2005) Every Child Succeeds program, combines in-home cognitive behavior therapy for depressed mothers with a supportive home visiting component. In other effective interventions described earlier in this chapter (Cicchetti et al., 2006; Dozier et al., 2002; Luthar et al., 2007), a cardinal component is consistent respect, warmth, and support displayed by project staff or therapists to participating mothers.

In attempting to go to scale with relationship-based interventions for mothers, we in science might do well to learn from an effective, widely used intervention that has been developed by lay people and involves minimal costs -- a critical consideration in these times of limited resources for mental health care – that is, Alcoholics Anonymous (AA). Begun in the 1930's, this is the most commonly sought after source of help for alcohol-related problems with more than 1.3 million Americans meeting each week. The therapeutic benefits of this program can be on par with those of professional interventions, and in some instances, even greater (see Kelly, Hoeppner, Stout, & Pagano, 2012).

Notably, this program is based on mechanisms of change that have a strong basis in science on protective processes in resilience. These include the presence of adaptive, consistent support networks, a realistic, flexible locus of control, and an emphasis on spirituality (see Crape, Latkin, Laris, & Knowlton, 2002; Galanter, 2007; Kelly et al., 2012). Powerful benefits are believed to derive from attendees' shifts to adaptive social networks (e.g., with reductions in pro-drinking network friends); members speak of unconditional acceptance in "the rooms," the absence of shame in sharing their most private failings, and

their ability to reach out to others at times of stress. With regard to locus of control, a cardinal program goal is striving to accept situations that are outside one's control, and to actively address those in which outcomes can be personally influenced. The spiritual component, finally, does not necessarily imply practicing religion, but is akin to how it has been defined in science (Greenfield, Vaillant, & Marks, 2009), with an emphasis largely on tapping one's inner resources, recognizing a power greater than oneself, and feeling a profound sense of caring for others.

Given its effectiveness -- and again, the significant fact that it entails minimal costs, shared by members -- the AA model might usefully be used for future community-based groups to promote resilience among at-risk mothers (and for at-risk custodial fathers). If in fact the power of AA meetings does lie largely in the authentic connections forged with others sharing similar struggles, with supportive reminders of their own behaviors that can and should be controlled (versus uncontrollable events), this is a model that might usefully be applied for caregivers vulnerable to parenting disturbances (see Luthar et al., 2007; O'Dougherty Wright, Fopma-Loy, & Oberle, 2012).

Increasingly, leaders in prevention and treatment have urged scientists to bolster relationship-based networks that already exist in communities, and to harness these in interventions that can become self-sustaining over time (Knitzer, 2000; Zigler & Finn-Stevenson, 2007). Noting the extensive support that existed among gay men during the early years of the AIDS epidemic, for example, Rotheram-Borus has exhorted future wellness initiatives that are centrally focused on strengthening social networks within at-risk communities (Rotheram-Borus et al., 2009). Kazdin and Rabbitt (2013) have described several low-cost, feasible, and effective interventions that use trained lay persons (as opposed to professional psychotherapists), including hair stylists in beauty salons trained to assess depression and anxiety and to provide appropriate referrals, and lay counselors for treating such problems, again, with structured training and appropriate backup for those who need psychotropic medications.

Community and School-Based Systemic Interventions

We close this chapter with directions for interventions beyond the parents and family, beginning with illustrations of established, effective, multi-level interventions that we believe provide models of programs that could, profitably, be taken to scale. The interventions we describe differ somewhat in the core foci – e.g., on neighborhoods or schools – but what they have in common is attention to relationships at multiple levels of children's ecological systems. In other words, all of these interventions reflect explicit cognizance that as long as children remain in settings that are damaging to their adjustment – with failures in systems ranging from communities and schools to law-enforcement and social service agencies -- any pull-out efforts to promote particular child skills will have limited value; conversely, drawing upon assets across multiple systems is both cost-effective and efficacious over the long term (Pianta & Walsh, 1998; Ungar, 2012; Zigler & Finn-Stevenson, 2007).

Ensuring children's physical safety in their neighborhoods and communities is the most basic goal in promoting resilience, and there now exist several programs addressing interconnected systems toward combating community violence (Ager, 2013). The Child Development-Community Policing Program (CD-CP) in New Haven (http://childstudycenter.yale.edu/community/cdcp.aspx), for example, utilizes a collaborative model --involving mental health, law enforcement, education, juvenile justice, and judicial and social services -- in an effort to reduce the negative effects caused by exposure to violence, while appropriately addressing legal consequences.

There is also much promise in community-based interventions that focus on positive interactions within and across families, such as the "Schools and Families Educating Children" (SAFE Children) intervention (Tolan, Gorman-Smith, & Henry, 2004). This preventive program is focused on promoting strong family relationships and developing support networks in the neighborhood, with attention also to children's academic functioning. Similarly, the Promise Neighborhoods initiative (Komro et al., 2011) uses local resources to support the development of children in at-risk communities, with a focus on key malleable factors including influences from the family, peers, schools, and other organizations. Also warranting more exploration are preventive community efforts that involve collaboration directly with groups of youth, such as the Youth Empowerment Solutions for Peaceful Communities (YES) program (Zimmerman, Stewart, Morrel-Samuels, Franzen, & Reischl, 2011).

In efforts to go to scale with such evidence-based neighborhood interventions, attention to local contextual needs and priorities is crucial. Intervention programs that are established with sensitivity to concerns of those in the neighborhood (via needs assessments) have much greater success with recruitment and retention, and in addition, those programs that operate in partnership with local citizens, schools, and agencies are more likely to be sustained over time (Komro et al., 2011; Lapalme, Bisset, & Potvin, 2013).

 In the setting of schools, we must capitalize more on the potential to use caring adults as allies in fostering resilience, expanding efforts based on existing interventions, and targeting not just elementary school students but also those in middle and high school (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Hughes, 2012; Pianta et al., 2012; Sabol & Pianta, 2012). As with communities, in bringing school-based interventions to scale, it will be vital to build upon "indigenous resources" (Atkins, Hoagwood, Kutash, & Seidman, 2010, p. 42), that is, existing school personnel such as school psychologists, teachers, administrators and support staff, as opposed to outside professionals. Involvement of local school personnel in planning and implementation stages is critical in ensuring that adopted programs will be sustained as part of a school's regular programming, rather than a temporary, intrusive or cost-intensive add-on.

From a pragmatic standpoint, Becker and colleagues have provided specific, useful directions for the large-scale implementation of school-based programs that are known to be effective, addressing the important issue of teachers' need for ongoing support (Becker, Darney, Domitrovich, Keperling, & Ialongo, 2013). Using examples of two evidence-based programs (the Good Behavior Game and the PATHS curriculum; Embry et al., 2003; Greenberg & Kusche, 2006), the authors outline directions for ongoing professional development in the form of a two-phased "coaching model." This entails an initial universal coaching phase for all teachers, followed by a tailored coaching phase, varying according to the strengths and needs of each teacher. If our child-care workers and teachers are to be the safety net when at-risk parents falter, it is imperative that they, in turn, receive support, validation, and guidance as needed, in their ongoing everyday responsibilities.

Conclusions

In the years ahead, resilience researchers would do well to hew firmly to goals underlying the work of pioneers who initiated research in this field – to make a difference; to maximize the well being of children, families, and society. To do this, we must first focus on systematically illuminating how best we can minimize harm to our young. This, in turn, will require careful choices in prioritizing vulnerability and protective influences included in our research studies.   None of us can hope to examine all indices that affect children, psychosocial and biological. But for behaviorally trained scientists within the field of resilience, the choices are helpfully narrowed, knowing as we do that our central charge is to illuminate forces that are broadly deterministic: with large effect sizes, and set in motion other beneficial effects. Including biological mediators and moderators because the technologies are now available, or because it is the prevailing trend, is not necessarily helpful; this is not our realm of expertise, we cannot change these, and even if we could, effect sizes are small. Most importantly, many of these biological markers are themselves strongly affected by relationships in the environment – which lie squarely within our domain of expertise.

In conclusion, our pressing tasks may be summarized thus. Foremost, we must understand more clearly what minimizes maltreatment by primary caregivers, and promotes positive parenting; illuminating exosystemic, community-based processes that are most critical in affecting these. We need to go to scale with evidence-based interventions -- especially those that build upon resources existing in communities -- as we work with mothers and fathers, and with teachers and mentors, to provide and sustain the most nurturing possible environments. Concerted attention to bolstering positive relationships within families, schools, and communities is our best hope in fostering resilience of at-risk youth and of the adults charged with their care.

References

Ager, A. (2013). Annual research review: Resilience and child well-being--public policy implications. *Journal of Child Psychology and Psychiatry, 54*, 488-500. doi: 10.1111/jcpp.12030

Ager, A., Akesson, B., Stark, L., Flouri, E., Okot, B., McCollister, F., & Boothby, N. (2011). The impact of the school-based Psychosocial Structured Activities (PSSA) program on conflict-affected children in northern Uganda. *Journal of Child Psychology and Psychiatry, 52,* 1124–1133. doi: 10.1111/j.1469-7610.2011.02407.x

Aikins, J. W., Howes, C., & Hamilton, C. (2009). Attachment stability and the emergence of unresolved representations during adolescence. *Attachment and Human Development, 11*, 491-512. doi: 10.1080/14616730903017019

Alicea, S., Pardo, G., Conover, K., Gopalan, G., & McKay, M. (2012). Step-Up: Promoting youth mental health and development in inner-city high schools. *Clinical Social Work Journal*, *40*, 175-186. doi: 10.1007/s10615-011-0344-3

Ammerman, R. T., Putnam, F. W., Stevens, J., Holleb, L. J., Novak, A. L., & Van Ginkel, J. B. (2005). In-home cognitive behavior therapy for depression: An adapted treatment for first-time mothers in home visitation. *Best Practices in Mental Health*, *1*, 1-14. doi: 10.1177/1534650106286533

Atkins, M. S., Hoagwood, K. E., Kutash, K., & Seidman, E. (2010). Toward the integration of education and mental health in schools. *Administration and Policy in Mental Health and Mental Health Services Research*, *37*, 40-47. doi: 10.1007/s10488-010-0299-7

Bailey, B. N., Hannigan, J. H., Delaney-Black, V., Covington, C., & Sokol, R. J. (2006). The role of maternal acceptance in the relation between community violence exposure and child functioning. *Journal of Abnormal Child Psychology, 34*, 57-70. doi: 10.1007/s10802-005-9002-y

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: Freeman.

Barber, B. K. (2013). Annual research review: The experience of youth with political conflict -- Challenging notions of resilience and encouraging research refinement. *Journal of Child Psychology and Psychiatry*, *54*, 461-473. doi: 10.1111/jcpp.12056

Barnett, M. A., Scaramella, L. V., Neppl, T. K., Ontai, L. L., & Conger, R. D. (2010). Grandmother involvement as a protective factor for early childhood adjustment. *Journal of Family Psychology, 24,* 635-645. doi: 10.1037/a0020829

Barr, S. C., Hanson, R., Begle, A. M., Kilpatrick, D. G., Saunders, B., Resnick, H., & Amstadter, A. (2012). Examining the moderating role of family cohesion on the relationship between witnessed community violence and delinquency in a national sample of adolescents. *Journal of Interpersonal Violence, 27*, 239-262. doi: 10.1177/0886260511416477

Barrera, M. J. R., Prelow, H. M., Dumka, L. E., Gonzales, N. A., Knight, G. P., Michaels, M. L., et al. (2002). Pathways from family economic conditions to adolescents' distress: Supportive parenting, stressors outside the family and deviant peers. *Journal of Community Psychology, 30,* 135-152. doi: 10.1002/jcop.10000

Beardslee, W. R. (2002). *Out of the darkened room: When a parent is depressed: Protecting the children and strengthening the family.* New York, NY: Little, Brown and Company.

Beardslee, W. R., Gladstone, T. R. G., & O'Connor, E. E. (2012). Developmental risk of depression: Experience matters. *Child and Adolescent Psychiatric Clinics of North America*, *21*, 261-278. doi: 10.1016/j.chc.2011.12.001

Becker, B. E., & Luthar, S. S. (2007). Peer-perceived admiration and social preference: Contextual correlates of positive peer regard among suburban and urban adolescents. *Journal of Research on Adolescence, 17*, 117-144. doi: 10.1111/j.1532-7795.2007.00514.x

Becker, K. D., Darney, D., Domitrovich, C., Keperling, J. P., & Ialongo, N. S. (2013). Supporting universal prevention programs: A two-phased coaching model. *Clinical Child and Family Psychology Review*, *16*, 213-228. doi: 10.1007/s10567-013-0134-2

Belsky, J., Jaffee, S., Hsieh, K., & Silva, P. A. (2001). Childrearing antecedents of intergenerational relations in young adulthood: A prospective study. *Developmental Psychology, 37,* 801-814. doi: 10.1037/0012-1649.37.6.80

Belsky, J., & Pluess, M. (2009). Beyond diathesis stress: Differential susceptibility to environmental influences. *Psychological Bulletin, 135*, 885-908. doi: 10.1037/a0017376

Betancourt, T. S., Borisova, I. I., Williams, T. P., Brennan, R. T., Whitfield, T. H., Soudiere, M. … Gilman, S. E. (2010). Sierra Leone's former child soldiers: A follow-up study of psychosocial adjustment and community reintegration. *Child Development*, *81*, 1077-1095. 10.1111/j.1467-8624.2010.01455.x

Biglan, A., & Taylor, T. K. (2000). Increasing the use of science to improve child-rearing. *Journal of Primary Prevention, 21,* 207-226. doi: 10.1023/A:1007083203280

Block, J. H., & Block, J. (1980). The role of ego-control and ego-resiliency in the organization of behavior. In W. A. Collins (Ed.). *Development of cognition, affect, and social relations: The Minnesota symposia on child psychology (Vol. 13)*. Hillsdale, NJ: Erlbaum.

Bolger, K. E., & Patterson, C. J. (2003). Sequelae of child maltreatment: Vulnerability and resilience. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 156-181). New York: Cambridge.

Borden, L. A., Schultz, T. R., Herman, K. C., & Brooks, C. M. (2010). The Incredible Years Parent Training Program: Promoting resilience through evidence-based prevention groups. *Group Dynamics: Theory, Research, and Practice, 14*, 230-241. doi: 10.1037/a0020322

Bornstein, M. H., Davidson, L., Keyes, Corey L. M. & Moore, K. A. (Eds.). (2003). *Well-being: Positive development across the life course*. Mahwah, NJ: Lawrence Erlbaum.

Bradshaw, C. P., Waasdorp, T. E., & Leaf, P. J. (2012). Effects of school-wide positive behavioral interventions and supports on child behavior problems. *Pediatrics*, *130*, e1136-e1145. doi: 10.1542/peds.2012-0243

Brody, G. H. (2004). Siblings' direct and indirect contributions to child development. *Current Directions in Psychological Science, 13,* 124-126. doi: 10.1111/j.0963-7214.2004.00289.x

Brody, G. H., Yu, T., Chen, E., Miller, G. E., Kogan, S. M., & Beach, S. R. (2013). Is resilience only skin deep? Rural African Americans' socioeconomic status-related risk and competence in preadolescence and psychological adjustment and allostatic load at age 19. *Psychological Science*, *24*. doi: 10.1177/0956797612471954

Bullock, B. M., & Dishion, T. J. (2002). Sibling collusion and problem behavior in early adolescence: Toward a process model for family mutuality. *Journal of Abnormal Child Psychology, 30,* 143-153. doi: 10.1023/A:1014753232153

Busby, D. R., Lambert, S. F., & Ialongo, N. S. (2013). Psychological symptoms linking exposure to community violence and academic functioning in African American adolescents. *Journal of Youth and Adolescence, 42*, 250-262. doi: 10.1007/s10964-012-9895-z

Calkins, S. D., & Fox, N. A. (2002). Self-regulatory processes in early personality development: A multilevel approach to the study of childhood social withdrawal and aggression. *Development and Psychopathology, 14,* 477-498. doi: 10.1017.S095457940200305X

Cappella, E., Hamre, B. K., Kim, H. Y., Henry, D. B., Frazier, S. L., Atkins, M. S., & Schoenwald, S. K. (2012). Teacher consultation and coaching within mental health practice: Classroom and child effects in urban elementary schools. *Journal of Consulting and Clinical Psychology, 80*, 597-610. doi: 10.1037/a0027725

Carlson, M. J., & Magnuson, K. A. (2011). Low-income fathers' influence on children. *The ANNALS of the American Academy of Political and Social Science, 635*, 95-116. doi: 10.1177/0002716210393853

Cavell, T. A. (2000). *Working with parents of aggressive children: A practitioner's guide.* (pp. 27-47). Washington, DC, US: American Psychological Association.

Ceballo, R., & McLoyd, V. C. (2002). Social support and parenting in poor, dangerous neighborhoods. *Child Development*, *73*, 1310-1321. doi: 10.1111/1467-8624.00473

Charney, D. S. (2004). Psychobiological mechanisms of resilience and vulnerability: Implications for successful adaptation to extreme stress. *Focus, 2,* 368-391. doi: 10.1176/appi.ajp.161.2.195

Cheung, C. S. S., Pomerantz, E. M., & Dong, W. (2012). Does adolescents' disclosure to their parents

matter for their academic adjustment? *Child Development*, *84*, 693-710. doi: 10.1111/j.1467-8624.2012.01853.x

Choi, J. K., & Jackson, A. P. (2011). Fathers' involvement and child behavior problems in poor African American single-mother families. *Children and Youth Services Review*, *33*, 698-704. doi: 10.1016/j.childyouth.2010.11.013

Cicchetti, D. (2013). Annual research review: Resilient functioning in maltreated children – past, present, and future perspectives. *Journal of Child Psychology and Psychiatry, 54*, 402-422. doi: 10.1111/j.1469-7610.2012.02608.x

Cicchetti, D., & Hinshaw, S. P. (2002). Development and Psychopathology: Editorial: Prevention and intervention science: Contributions to developmental theory. *Development and Psychopathology, 14*, 667-671. doi: 10.1017/S0954579402004017

Cicchetti, D., & Rogosch, F. A. (2007). Personality, adrenal steroid hormones, and resilience in maltreated children: A multilevel perspective. *Development and Psychopathology*, *19*, 787-809. doi: 10.1017/S0954579407000399

Cicchetti, D., & Rogosch, F. A. (2012). Gene x Environment interaction and resilience: Effects of child maltreatment and serotonin, corticotropin releasing hormone, dopamine, and oxytocin genes. *Developmental Psychopathology, 24*, 411-427. doi: 10.1017/S0954579412000077

Cigularov, K., Chen, P. Y., Thurber, B. W., & Stallones, L. (2008). What prevents adolescents from seeking help after a suicide education program? *Suicide and Life-Threatening Behavior*, *38*, 74-86. doi: 10.1521/suli.2008.38.1.74

Clampet-Lundquist, S., Edin, K., Kling, J., & Duncan, G. (2011). Moving teenagers out of high-risk neighborhoods: How girls fare better than boys. *American Journal of Sociology*, *116*, 1154-1189. doi: 10.1086/657352

Coley, R.L. (2001). (In)visible men: Emerging research on low-income, unmarried, and minority fathers. *American Psychologist, 56,* 743-753. doi: 10.1037/0003-066X.56.9.743

Coley, R. L., Carrano, J., & Lewin-Bizan, S. (2011). Unpacking links between fathers' antisocial behaviors and children's behavior problems: Direct, indirect, and interactive effects. *Journal of Abnormal Child Psychology, 39*, 791-804. doi: 10.1007/s10802-011-9496-4

Coley, R. L., Lewin-Bizan, S., & Carrano, J. (2011). Does early paternal parenting promote low-income children's long-term cognitive skills? *Journal of Family Issues, 32*, 1522-1542. doi: 10.1177/0192513X11402175

Crape, B. L., Latkin, C. A., Laris, A. S., & Knowlton, A. R. (2002). The effects of sponsorship in 12-step treatment of injection drug users. *Drug and Alcohol Dependence*, *65*, 291-301. doi: 10.1016/S0376-8716(01)00175-2

Crossley, I. A. & Buckner, J. C. (2012). Maternal-related predictors of self-regulation among low-income youth. *Journal of Child and Family Studies, 21*, 217-227. doi: 0.1007/s10826-011-9465-0

Dearing, E. & Hamilton, L. C. (2006). Contemporary approaches and classic advice for analyzing mediating and moderating variables. *Monographs for the Society for Research in Child Development*, *71*, 88-104. doi: 10.1111/j.1540-5834.2006.00406.x

Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behavior. *Journal of Personality and Social Psychology*, *53*, 1024-1037. doi: 10.1037/0022-3514.53.6.1024

Desrosiers, A., & Miller, L. (2007). Relational spirituality and depression in adolescent girls. *Journal of Clinical Psychology, 63*, 1021-1037. doi: 10.1002/jclp.20409

Dishion, T. J., & McMahon, R. J. (1998). Parental monitoring and the prevention of child and adolescent problem behavior: A conceptual and empirical formulation. *Clinical Child & Family Psychology Review. 1,* 61-75.

Dishion, T. J., & Tipsord, J. M. (2011). Peer contagion in child and adolescent social and emotional development. *Annual Review of Psychology, 62*, 189-214. doi: 10.1146/annurev.psych.093008.100412

Dodge, K. A., Dishion, T. J., & Lansford, J. E. (2006). Deviant peer influences in intervention and public policy for youth. *Social Policy Report: Society for Research in Child Development, 20,* 3-19.

Dozier, M., Albus, K., Fisher, P., & Sepulveda, S. (2002). Interventions for foster parents: Implications for developmental theory. *Development and Psychopathology, 14,* 843-860. doi: 10.1017.S0954579402004091

Dozier, M., Lindhiem, O., & Ackerman, J. (2005). Attachment and biobehavioral catch-up: An intervention targeting empirically identified needs of foster infants. In L. Berlin, Y. Ziv, L. Amaya-Jackson, & M. T. Greenberg (Eds.), *Enhancing early attachments: Theory, research, intervention and policy* (pp. 178-194). New York, NY: Guilford Press.

Dupéré, V., Leventhal, T., & Vitaro, F. (2012). Neighborhood processes, self-efficacy, and adolescent mental health. *Journal of Health and Social Behavior, 53*, 183-193. doi: 10.1177/0022146512442676

Durakovic-Belko, E., Kulenovic, A., & Dapic, R. (2003). Determinants of posttraumatic adjustment in adolescents from Sarajevo who experienced war. *Journal of Clinical Psychology, 59,* 27–40. doi: 10.1002/jclp.10115

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta- analysis of school- based universal interventions. *Child Development*, *82*, 405-432. doi: 10.1111/j.1467-8624.2010.01564.x

Edwards, E. P., Eiden, R. D., & Leonard, K. E. (2006). Behavior problems in 18-to 36-month-old children of alcoholic fathers: Secure mother-infant attachment as a protective factor. *Development and Psychopathology*, *18*, 395-407. doi: 10.1017/S0954579406060214

Eisenberg, N. (2014). Is our focus becoming overly narrow? APS Observer, (27) Retrieved on September 4, 2014, from http://www.psychologicalscience.org/index.php/publications/observer/2014/september-14/is-our-focus-becoming-overly-narrow.html.

Eisenberg, N., Spinrad, T. L., Fabes, R. A., Reiser, M., Cumberland, A., Shepard, S. A., ... & Thompson, M. (2004). The relations of effortful control and impulsivity to children's resiliency and adjustment. *Child Development*, *75*, 25-46, doi: 10.1111/j.1467-8624.2004.00652.x

Elder, G. H., & Conger, R. D. (2000). *Children of the land: Adversity and success in rural America.* Chicago: University of Chicago Press.

Embry, D. D., Staatemeier, G., Richardson, C., Lauger, K., & Mitich, J. (2003). *The PAX Good Behavior Game (First Edition.)*. Center City, MN: Hazelden.

Evans, S. Z., Simons, L. G., & Simons, R. L. (2012). The effects of corporal punishment and verbal abuse on delinquency: Mediating mechanisms. *Journal of Youth and Adolescence*, *41*, 1095-1110. doi: 10.1007/s10964-012-9755-x

Fantuzzo, J., Manz, P., Atkins, M., & Meyers, R. (2005). Peer-mediated treatment of socially withdrawn maltreated preschool children: Cultivating natural community resources. *Journal of Clinical Child and Adolescent Psychology, 34*, 320-325. doi: 10.1207/s15374424jccp3402_11

Farber, E. A., & Egeland, B. (1987). Invulnerability in abused and neglected children. In E. J. Anthony & B. J. Cohler (Eds.), *The invulnerable child* (pp. 253-288). New York: Guilford Press.

Felitti, V. J., & Anda, R. F. (2010). The relationship of adverse childhood experiences to adult medical disease, psychiatric disorders and sexual behavior: implications for healthcare. In R. A. Lanius, E. Vermetten, & C. Pain (Eds.), *The impact of early life trauma on health and disease: The hidden epidemic* (pp. 77-87). New York, NY: Cambridge.

Felner, R. D., Favazza, A., Shim, M., Brand, S., Gu, K., & Noonan, N. (2001). Whole school improvement and restructuring as prevention and promotion: Lessons from STEP and the Project on High Performance Learning Communities. *Journal of School Psychology, 39,* 177-202. doi: 10.1016/S0022-4405(01)00057-7

Fiedler, F. E. (1995). Cognitive resources and leadership performance. *Applied psychology: An international review, 44,* 5-28. doi: 10.1111/j.1464-0597.1995.tb01378.x

Fine, S. E., Izard, C. E., Mostow, A. J., Trentacosta, C. J., & Ackerman, B. P. (2003). First grade emotion knowledge as a predictor of fifth grade self-reported internalizing behaviors in children from economically disadvantaged families. *Development and Psychopathology, 15,* 331-342. doi:

10.1017.S095457940300018X

Fish, M. (2004). Attachment in infancy and preschool in low socioeconomic status rural Appalachian children: Stability and change and relations to preschool and kindergarten competence. *Development and Psychopathology*, *16*, 293-312. doi: 10.1017/S0954579404044529.

Formoso, D., Gonzales, N.A., & Aiken, L.S. (2000). Family conflict and children's internalizing and externalizing behavior: Protective factors. *American Journal of Community Psychology*, *28*, 175–199. doi: 10.1023/A:1005135217449

Fosco, G. M., Stormshak, E. A., Dishion, T. J., & Winter, C. E. (2012). Family relationships and parental monitoring during middle school as predictors of early adolescent problem behavior. *Journal of Clinical Child & Adolescent Psychology, 41,* 202-213. doi: 10.1080/15374416.2012.651989

Fowler, P. J., Tompsett, C. J., Braciszewski, J. M., Jacques-Tiura, A. J., & Baltes, B. B. (2009). Community violence: A meta-analysis on the effect of exposure and mental health outcomes of children and adolescents. *Developmental Psychopathology, 21*, 227-259. doi: 10.1080/10852350903196258

Franco, L. M., Pottick, K. J., & Huang, C. (2010). Early parenthood in a community context: Neighborhood conditions, race-ethnicity, and parenting stress. *Journal of Community Psychology*, *38*, 574-590. doi: 10.1002/jcop.20382

Galanter, M. (2007). Spirituality and recovery in 12-step programs: An empirical model. *Journal of Substance Abuse Treatment, 33*, 265-272. doi: 10.1016/j.jsat.2007.04.016

Garcia Coll, C., & Marks, A. K. (2011). *The immigrant paradox in children and adolescents: Is Becoming American a developmental risk?* Washington, DC: APA Books.

Garcia Coll, C., Surrey, J. L., & Weingarten, K. (1998). *Mothering against the odds: Diverse voices of contemporary mothers*. New York, NY: The Guilford Press.

Garmezy, N. (1971). Vulnerability research and the issue of primary prevention. *American Journal of Orthopsychiatry, 41*, 101–116. doi: 10.1111/j.1939-0025.1971.tb01111.x

Garmezy, N., & Masten, A. S. (1986). Stress, competence, and resilience: Common frontiers for therapist and psychopathologist. *Behavior Therapy, 17,* 500-521. doi: 10.1016/S0005-7894(86)80091-0

Garmezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development, 55,* 97111. doi: 10.1111/1467-8624.ep7405463

Garvin, M. C., Tarullo, A. R., Van Ryzin, M., & Gunnar, M. R. (2012). Postadoption parenting and socioemotional development in postinstitutionalized children. *Development and Psychopathology*, *24*, 35-48. doi: 10.1017/S0954579411000642

Gewirtz, A., Forgatch, M., & Wieling, E. (2008). Parenting practices as potential mechanisms for child adjustment following mass trauma. *Journal of Marital and Family Therapy*, *34*, 177-192. doi: 10.1111/j.1752-0606.2008.00063.x.

Gilliom, M., Shaw, D. S., Beck, J. E., Schonberg, M. A., & Lukon, J. L. (2002). Anger regulation in disadvantaged preschool boys: Strategies, antecedents, and the development of self-control. *Developmental Psychology, 38,* 222-235. doi: 10.1037/0012-1649.38.2.222

Ginsburg-Block, M. D., Rohrbeck, C. A., & Fantuzzo, J. W. (2006). A meta-analytic review of social, self-concept, and behavioral outcomes of peer-assisted learning. *Journal of Educational Psychology, 98*, 732-749. doi: 10.1037/0022-0663.98.4.732

Gopalan, G., Alicea, S., Conover, K., Fuss, A., Gardner, L., Pardo, G., & McKay, M. (2013). Project step-up: Feasibility of a comprehensive school-based prevention program. *The Journal of Early Adolescence*, *33*, 131-154. doi: 10.1177/0272431612467536

Gorman-Smith, D., &. Tolan, P. H. (2003). Positive adaptation among youth exposed to community violence. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 392-413). New York, NY: Cambridge.

Greenberg, M. T. & Kusché, C. A. (2006). Building social and emotional competence: The PATHS curriculum. In S. R. Jimerson & M. Furlong (Eds*.), Handbook of school violence and school*

safety: From research to practice (pp. 395-412). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Greenfield, E. A., Vaillant, G. E., & Marks, N. F. (2009). Do formal religious participation and spiritual perceptions have independent linkages with diverse dimensions of psychological well-being? *Journal of Health and Social Behavior*, *50*, 196-212. doi: 10.1177/002214650905000206

Grossman, J. B., & Rhodes, J. E. (2002). The test of time: Predictors and effects of duration in youth mentoring relationships. *American Journal of Community Psychology, 30,* 199-219. doi: 10.1023/A:1014680827552

Gunnar, M. & Quevedo, K. (2007). The neurobiology of stress and development. *Annual Review of Psychology, 58*, 145-173. doi: 10.1146/annurev.psych.58.110405.085605

Gutman, L. M., Sameroff, A. J., & Cole, R. (2003). Academic growth curve trajectories from 1st grade to 12th grade: Effects of multiple social risk factors and preschool child factors. *Developmental Psychology, 39,* 777-790. doi: 10.1037/0012-1649.39.4.777

Gutman, L.M., Sameroff, A.J., & Eccles, J. S. (2002). The academic achievement of African-American students during early adolescence: An examination of multiple risk, promotive, and protective factors. *American Journal of Community Psychology, 30,* 367-400. doi: 10.1023/A:1015389103911

Haine, R. A., Ayers, T. S., Sandler, I. N., & Wolchik, S. A. (2008). Evidence-based practices for parentally bereaved children and their families. *Professional Psychology: Research and Practice, 39*, 113-121. doi: 0.1037/0735-7028.39.2.113

Halligan, S. L., Cooper, P. J., Fearon, P., Wheeler, S. L., Crosby, M., & Murray, L. (2013). The longitudinal development of emotion regulation capacities in children at risk for externalizing disorders. *Development and Psychopathology*, *25*, 391-406. doi: 10.1017/S0954579412001137

Hanson, D. R., & Gottesman, I. I. (2012). Biologically flavored perspectives on Garmezian resilience. *Development and Psychopathology, 24*, 363-369. doi: 10.1017/S0954579412000041

Harlem Children's Zone. (2009). *Early childhood*. Retrieved from the Harlem Children's Zone website: http://www.hcz.org/index.php/programs/early-childhood.

Hashima, P. Y., & Amato, P. R. (1994). Poverty, social support, and parental behavior. *Child Development, 65*, 394-403. doi: 10.1111/j.1467-8624.1994.tb00758.x

Hauser, S. T., Allen, J. P., & Golden, E. (2006). *Out of the woods: Tales of teen resilience*. Cambridge, MA: Harvard University Press.

Hedges, D. W., & Woon, F. L. (2011). Early-life stress and cognitive outcome. *Psychopharmacology*, *214*, 121-130. doi: 10.1007/s00213-010-2090-6

Heinicke, C. M., Rineman, N. R., Ponce, V. A., & Guthrie, D. (2001). Relation-based intervention with at-risk mothers: Outcome in the second year of life. *Infant Mental Health Journal, 22,* 431-462. doi: 10.1002/imhj.1010

Herrera, C., Grossman, J. B., Kauh, T. J., & McMaken, J. (2011). Mentoring in schools: An impact study of big brothers big sisters school-based mentoring. *Child Development, 82*, 346-361. doi: 10.1111/j.1467-8624.2010.01559.x

Hetherington, E. M., & Elmore, A. M. (2003). Risk and resilience in children coping with their parents' divorce and remarriage. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 182-212). New York: Cambridge.

Hill, T. D., Burdette, A. M., Regnerus, M., & Angel, R. J. (2008). Religious involvement and attitudes toward parenting among low-income urban women. *Journal of Family Issues, 29*, 882-900. doi: 10.1177/0192513x07311949

Hirshey, G. (2007, January 28). Pushing back at bullying. New York Times. Retrieved from http://www.nytimes.com/2007/01/28/nyregion/nyregionspecial2/28rbully.html?pagewanted=all&_r=0

Holtzman, R. J., & Roberts, M. C. (2012). The role of family conflict in the relation between exposure to community violence and depressive symptoms. *Journal of Community Psychology, 40*, 264-275. doi: 10.1002/jcop.20511

Hughes, C., Roman, G., Hart, M. J., & Esnor, R. (2013). Does maternal depression predict young children's executive functioning?: A 4-year longitudinal study. *The Journal of Child Psychology and Psychiatry*, *54*, 169-177. doi: 10.1111/jcpp.12014

Hughes, J. N. (2012). Teacher–student relationships and school adjustment: Progress and remaining challenges. *Attachment & Human Development, 14*, 319-327. doi: 10.1080/14616734.2012.672288

Jain, S., Buka, S. L., Subramanian, S. V., & Molnar, B. E. (2012). Protective factors for youth exposed to violence: Role of developmental assets in building emotional resilience. *Youth Violence and Juvenile Justice*, *10*, 107-129. doi: 10.1177/1541204011424735

Kazdin, A. E., & Rabbitt, S. M. (2013). Novel models for delivering mental health services and reducing the burdens of mental illness. *Clinical Psychological Science, 1*, 170-191. doi:10.1177/2167702612463566

Kelly, J. F., Hoeppner, B., Strout, R. L., & Pagano, M. (2012). Determining the relative importance of the mechanisms of behavior change within Alcoholics Anonymous: A multiple mediator analysis. *Addiction*, *107*, 289-299. doi: 10.1111/j.1360-0443.2011.03593.x

King, P. E., Carr, D., & Boitor, C. (2011). Religion, spirituality, positive youth development, and thriving. *Advances in Child Development and Behavior, 41*, 161-195. doi: 10.1016/b978-0-12-386492-5.00007-5

Kingston, D., Tough, S., & Whitfield, H. (2012). Prenatal and postpartum maternal psychological distress and infant development: A systematic review. *Child Psychiatry and Human Development, 43*, 683-714. doi: 10.1007/s10578-012-0291-4

Kira, I., Lewandowski, L., Somers, C. L., Yoon, J. S., & Chiodo, L. (2012). The effects of trauma types, cumulative trauma, and PTSD on IQ in two highly traumatized adolescent groups. *Psychological Trauma: Theory, Research, Practice, and Policy*, *4*, 128-139. doi: 10.1037/a0022121

Knitzer, J. (1982). *Unclaimed children: The failure of public responsibility to children and adolescents in need of mental health care.* Washington, DC: Children's Defense Fund.

Knitzer, J. (2000). Early childhood mental health services: A policy and systems development perspective. In J. P. Shonkoff & S. J. Meisels (Eds.), *Handbook of early childhood intervention (Second Edition)* (pp. 416-438). Cambridge, MA: Cambridge University Press.

Komro, K. A., Flay, B. R., Biglan, A., & Promise Neighborhoods Research Consortium. (2011). Creating nurturing environments: a science-based framework for promoting child health and development within high-poverty neighborhoods. *Clinical Child & Family Psychology Review, 14*, 111-134. doi: 10.1007/s10567-011-0095-2

Kotchick, B. A., Dorsey, S., & Heller, L. (2005). Predictors of parenting among African American single mothers: Personal and contextual factors. *Journal of Marriage and Family*, *67*, 448-460. doi: 10.1111/j.0022-2445.2005.00127.x

Kumpfer, K. L., & Alvarado, R. (2003). Family-strengthening approaches for the prevention of youth problem behaviors. *American Psychologist, 58,* 457-465. doi: 10.1037/0003-066X.58.6-7.457

Kupersmidt, J. B. & Dodge, K. A. (Eds.). (2004). *Children's peer relations: From development to intervention.* Washington, D.C.: APA Books. doi: 10.1037/10653-000

Kurlycheck, M. C., Krohn, M. D., Dong, B., Penly Hall, G., & Lizotte, A. (2012). Protection from risk: An exploration of when and how neighborhood-level factors can reduce violent youth outcomes. *Youth Violence and Juvenile Justice*, *10*, 83-106. doi: 10.1177/1541204011422088

Laible, D., Carlo, G., Panfile, T., Eye, J., & Parker, J. (2010). Negative emotionality and emotion regulation: A person-centered approach to predicting socioemotional adjustment in young adolescents. *Journal of Research in Personality*, *44*, 621-629. doi: 10.1016/j.jrp.2010.08.003

Lahey, B. B., Van Hulle, C. A., D'Onofrio, B. M., Rodgers, J. L., & Waldman, I. D. (2008). Is parental knowledge of their adolescent offspring's whereabouts and peer associations spuriously associated with offspring delinquency? *Journal of Abnormal Child Psychology*, *36*, 807-823. doi: 10.1007/s10802-008-9214-z

Lamb, M.E. (Ed.). (2004). *The role of the father in child development* (4th Edition). New York, NY:

Wiley.

Lamb M. E., & Ahnert L. (2006). Nonparental child care: context, concepts, correlates, and consequences. In W. Damon, R. M. Lerner, K. A. Renninger, & I. E. Sigel (Eds.), *Handbook of Child Psychology: Vol. 4. Child Psychology in Practice,* (Sixth Edition) (pp. 950–1016). Hoboken, NJ: Wiley.

Lambert, S. F., Boyd, R. C., Cammack, N. L., & Ialongo, N. S. (2012). Relationship proximity to victims of witnessed community violence: Associations with adolescent internalizing and externalizing behaviors. *American Journal of Orthopsychiatry, 82*, 1-9. doi: 10.1111/j.1939-0025.2011.01135.x

Lansford, J. E., Criss, M. M., Laird, R. D., Shaw, D. S., Pettit, G. S., Bates, J. E., & Dodge, K. A. (2011). Reciprocal relations between parents' physical discipline and children's externalizing behavior during middle childhood and adolescence. *Developmental Psychopathology, 23*, 225-238. doi: 10.1017/S0954579410000751

Lansford, J. E., Criss, M. M., Pettit, G. S., Dodge, K. A., & Bates, J. E. (2003). Friendship quality, peer group affiliation, and peer antisocial behavior as moderators of the link between negative parenting and adolescent externalizing behavior. *Journal of Research on Adolescence, 13,* 161-184. doi: 10.1111/1532-7795.1302002

Lansford, J. E., Malone, P. S., Dodge, K. A., Chang, L., Chaudhary, N., Tapanya, S., … Deater-Deckard, K. (2010). Children's perception of maternal hostility as a mediator of the link between discipline and children's adjustment in four countries. *International Journal of Behavioral Development*, *34*, 452-461. doi: doi: 10.1177/0165025409354933

Lapalme, J., Bisset, S., & Potvin, L. (2013). Role of context in evaluating neighbourhood interventions promoting positive youth development: A narrative systematic review. *International Journal of Public Health*. Advance online publication. doi: 10.1007/s00038-013-0449-2

Laub, J. H., & Sampson, R. J. (2003). *Shared beginnings, divergent lives: Delinquent boys to age 70.* Cambridge, MA: Harvard University Press.

Lawler, M. J., Shaver, P. R. & Goodman, G. S. (2011). Toward relationship-based child welfare services. *Child and Youth Services Review, 33,* 473-480. doi: 10.1016/j.childyouth.2010.06.018

Lerner, R. M., Dowling, E. M., & Anderson, P. M. (2003). Positive youth development: Thriving as a basis of personhood and civil society. *Applied Developmental Science, 7,*172–180. doi: 10.1207/S1532480XADS0703_8

Lerner, R. M., von Eye, A., Lerner, J. V., Lewin-Bizan, S. (2009). Exploring the foundations and functions of adolescent thriving within the 4-H Study of Positive Youth Development: A view of the issues. *Journal of Applied Developmental Psychology*, *30*, 567-570. doi:10.1016/j.appdev.2009.07.002

Leventhal, T., & Dupéré, V. (2011). Moving to opportunity: Does long-term exposure to 'low-poverty' neighborhoods make a difference for adolescents? *Social Science & Medicine*, *73*, 737-743. doi: 10.1016/j.socscimed.2011.06.042

Leventhal, T., Dupéré, V., & Brooks-Gunn, J. (2009). Neighborhood influences on adolescent development. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of Adolescent Psychology* (*Third Edition*.) (pp. 411-443). New York: John Wiley and Sons.

Lewis, C., & Lamb, M. E. (2003). Fathers' influences on children's development: The evidence from two-parent families. *European Journal of Psychology of Education, 18*, 211-228. doi: 10.1007/BF03173485

Lipscomb, S. T., Leve, L. D., Harold, G. T., Neiderhiser, J. M., Shaw, D. S., Ge, X. J., & Reiss, D. (2011). Trajectories of parenting and child negative emotionality during infancy and toddlerhood: A longitudinal analysis. *Child Development*, *82*, 1661-1675. doi: 10.1111/j.1467-8624.2011.01639.x

Little, B. R. (2011). Personality science and the northern tilt: As positive as possible under the circumstances. In K. M. Sheldon, T. B. Kashdan, & M. F. Steger (Eds.), *Designing positive psychology: Taking stock and moving forward* (pp. 228-248). New York, NY: Oxford University Press.

Loeber, R., Menting, B., Lynam, D. R., Moffitt, T. E., Stouthamer-Loeber, M., Stallings, R., … Pardini, D. (2012). Findings from the Pittsburgh Youth Study: Cognitive impulsivity and intelligence as predictors of age-crime curve. *Journal of the American Academy of Child and Adolescent Psychiatry*, *51*, 1136-1149. doi: 10.1016/j.jaac.2012.08.019

Lorber, M. F., & Egeland, B. (2011). Parenting and infant difficulty: Testing a mutual exacerbation hypothesis to predict early onset conduct problems. *Child Development*, *82*, 2006-2020. doi: 10.1111/j.1467-8624.2011.01652.x

Ludwig, J., Duncan, G. J., Gennetian, L. A., Katz, L. F., Kessler, R. C., Kling, J. R., & Sanbonmatsu, L. (2012). Neighborhood effects on the long-term well-being of low-income adults. *Science*, 1505-1510. doi: 10.1126/science.1224648

Luthar, S. S. (1991). Vulnerability and resilience: A study of high-risk adolescents. *Child Development, 62,* 600-616. doi: 10.1111/1467-8624.ep9109090184

Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades. In D. Cicchetti & D. J. Cohen (Eds.), D*evelopmental Psychopathology: Risk, disorder, and adaptation* (pp. 740-795). New York, NY: Wiley.

Luthar, S. S. (2010). Fostering Resilience: Who mothers mommies? Plenary talk at the Annual Meetings of the American Psychological Association, San Diego, CA, August 14th.

Luthar, S. S., & Barkin, S. H. (2012). Are affluent youth truly "at risk"? Vulnerability and resilience across three diverse samples. *Development and Psychopathology*, *24*, 429-449. doi: 10.1017/S0954579412000089

Luthar, S. S., Barkin, S. H., & Crossman, E. J. (2013).   "I can, therefore I must": Fragility in the upper-middle classes. *Development and Psychopathology, 25th Anniversary Special Issue, 25,* 1529–1549. http://dx.doi.org/10.1017/S0954579413000758

Luthar, S. S., & Brown, P. J. (2007). Maximizing resilience through diverse levels of inquiry: Prevailing paradigms, possibilities, and priorities for the future. *Development and Psychopathology, 19*, 931-955. doi: 10.1017/S0954579407000454

Luthar, S. S. & Cicchetti, D. (2000). The construct of resilience: Implications for interventions and social policies. *Development and Psychopathology, 12,* 857-885. PMC1903337

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. doi: 10.1111/1467-8624.00164

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. doi:10.1017/S0954579400006246.

Luthar, S. S., & Latendresse, S. J. (2005). Comparable "risks" at the SES extremes: Pre-adolescents' perceptions of parenting. *Development and Psychopathology, 17,* 207-230. doi: 10.10170S095457940505011X

Luthar, S. S., Lyman, E., & Crossman, E. J. (2014). Resilience and positive psychology In M. Lewis and K. Rudolph (Eds.), *Handbook of Developmental Psychopathology* (3rd Edition, pp. 125-140). Norwell, MA: Kluwer/ Academic Press.   10.1007/978-1-4614-9608-3_7

Luthar, S. S., Suchman, N. E., & Altomare, M. (2007). Relational Psychotherapy Mothers' Group: A randomized clinical trial for substance abusing mothers. *Development and Psychopathology, 19*, 243-261. doi:10.1017/S0954579407070137.

Luthar, S. S., & Zigler, E. (1991). Vulnerability and competence: A review of research on resilience in childhood. *American Journal of Orthopsychiatry, 61,* 6-22. doi: 10.1037/h0079218

Mahoney, J. L., Harris, A. L., & Eccles, J. S. (2006). Organized activity participation, positive youth development, and the over-scheduling hypothesis. *Social Policy Report, 20,* 3-31.

Mahoney, J. L., & Magnusson, D. (2001). Parent participation in community activities and the persistence of criminality. *Development and Psychopathology, 13,* 125-141.

Maimon, D., Browning, C. R., & Brooks-Gunn, J. (2010). Collective efficacy, family attachment, and urban adolescent suicide attempts. *Journal of Health and Social Behavior*, *51*, 307-324. doi: 10.1177/0022146510377878

Manfred, T. (2013, June 21). LeBron James really did grow up in inner city poverty. *Business Insider*. Retrieved from http://www.businessinsider.com/lebron-james-life-story-2013-6#ixzz2XK3hy04d

Masten, A. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56,* 227-238. doi: 10.1037//0003-066X.56.3.227

Masten, A. S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology, 23*, 493-506. doi: 10.1017/S0954579411000198.

Masten, A., Best, K., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, *2*, 425-444. doi:10.1017/S0954579400005812.

Masten, A. S., Herbers, J. E., Desjardins, C. D., Cutuli, J. J., McCormick, C. M., Sapienza, J. K., … Zelazo, P. D. (2012). Executive functioning skills and school success in young children experiencing homelessness. *Educational Researcher, 41*, 375-384. doi: 10.3102/0013189X12459883

Masten, A. S., & Narayan, A. J. (2012). Child development in the context of disaster, war, and terrorism: Pathways of risk and resilience. *Annual Review of Psychology*, *63*, 227-257. doi: 10.1146/annurev-psych-120710-100356

Masten, A. S., & Tellegen, A. (2012). Resilience in developmental psychopathology: contributions of the Project Competence Longitudinal Study. *Development and Psychopathology*, *24*, 345-361. doi: 10.1017/S095457941200003X

Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human abilities: Emotional intelligence. *Annual Review of Psychology, 59*, 507-536. doi: 10.1146/annurev.psych.59.103006.093646

McElhaney, K. B., & Allen, J. P. (2012). Sociocultural perspectives on adolescent autonomy. In P. Kerig, M. Schulz & S. T. Hauser (Eds.), *Adolescence and beyond: Family processes and development* (pp. 161-176). Oxford: Oxford University Press.

McClain, D. B., Wolchik, S. A., Winslow, E., Tein, J. Y., Sandler, I. N., & Millsap, R. E. (2010). Developmental cascade effects of the New Beginnings Program on adolescent adaptation outcomes. *Development and Psychopathology, 22*, 771-784. doi: 10.1017/S0954579410000453

McKelvey, L. M., Whiteside-Mansell, L., Bradley, R. H., Casey, P. H., Conners-Burrow, N. A., & Barrett, K. W. (2011). Growing up in violent communities: Do family conflict and gender moderate impacts on adolescents' psychosocial development? *Journal of Abnormal Child Psychology, 39*, 95-107. doi: 10.1007/s10802-010-9448-4

Miller, G. A. (2010). Mistreating psychology in the decades of the brain. Perspectives on Psychological Science, 5(6), 716-743. doi: 10.1177/1745691610388774.

Miller, L., & Gur, M. (2002). Religiosity, depression, and physical maturation in adolescent girls. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*, 206–214. doi: 10.1097/00004583-200202000-00015

Miller, L., Wickramaratne, P., Gameroff, M. J., Sage, M., Tenke, C. E., & Weissman, M. M. (2012). Religiosity and major depression in adults at high risk: A ten-year prospective study. *The American Journal of Psychiatry*, *169*, 89-94. doi: 10.1176/appi.ajp.2011.10121823

Moss, E., Cyr, C., Bureau, J. F., Tarabulsy, G. M., Dubois-Comtois, K. (2005). Stability of attachment during the preschool period. *Developmental Psychology*, *41*, 773-783. doi: 10.1037/0012-1649.41.5.773

Murry, V. M., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. *Journal of Research on Adolescence, 21*, 114-128. doi: 10.1111/j.1532-7795.2010.00718.x

National Scientific Council on the Developing Child. Cambridge: The Council: 2005. Excessive stress disrupts the architecture of the developing brain. Working Paper No. 3. Available from: http://www.developingchild.net/pubs/wp/Stress_Disrupts_Architecture_Developing_Brain.pdf.

NICHD Early Child Care Research Network (2006). Child-care effect sizes for the NICHD study of early child care and youth development. *American Psychologist*, 61, 99-116. doi: 10.1037/0003-

066X.61.2.99

Noam, G. G., & Hermann, C. A. (2002). Where education and mental health meet: Developmental prevention and early intervention in schools. *Development and Psychopathology, 14,* 861-875. doi: 10.1017.S0954579402004108

O'Connor, E. E. (2010). Teacher–child relationships as dynamic systems. *Journal of School Psychology*, *48*, 187-218. doi: 10.1016/j.jsp.2010.01.001

O'Donnell, P., Richards, M., Pearce, S., & Romero, E. (2012). Gender differences in monitoring and deviant peers as predictors of delinquent behavior among low-income urban African American youth. *Journal of Early Adolescence*, *32*, 431-459. doi: 10.1177/0272431610397661.

O'Dougherty Wright, M., Fopma-Loy, J., & Oberle, K. (2012). In their own words: The experience of mothering as a survivor of childhood sexual abuse. *Development and Psychopathology*, *24*, 537-552. doi: 10.1017/S0954579412000144

Oberlander, S. E., Black, M. M., & Starr, R. H., Jr. (2007). African American adolescent mothers and grandmothers: A multigenerational approach to parenting. *American Journal of Community Psychology, 39*, 37-46. doi: 10.1007/s10464-007-9087-2.

Obradovic, J., Long, J. D., Cutuli, J. J., Chan, C., Hinz, E., Heistad, D., & Masten, A. S. (2009). Academic achievement of homeless and highly mobile children in an urban school district: Longitudinal evidence on risk, growth, and resilience. *Development and Psychopathology*, *21*, 493-518. doi:10.1017/S0954579409000273

Odgers, C. L., Moffitt, T. E., Tach, L. M., Sampson, R. J., Taylor, A., Matthews, C. L., & Caspi, A. (2009). The protective effects of neighborhood collective efficacy on British children growing up in deprivation: A developmental analysis. *Developmental Psychology*, *45*, 942-957. doi: 10.1037/a0016162

Padilla-Walker, L. M., Day, R. D., Dyer, W. J., & Black, B. C. (2012). "Keep on keeping on, even when it's hard!": Predictors and outcomes of adolescent persistence. *Journal of Early Adolescence*, *33*, 433-457. doi: 10.1177/0272431612449387

Panter-Brick, C., Goodman, A., Tol, W., & Eggerman, M. (2011). Mental health and childhood adversities: A longitudinal study in Kabul, Afghanistan. *Journal of the American Academy of Child and Adolescent Psychiatry*, *50*, 349-363. doi: 10.1016/j.jaac.2010.12.001

Panter-Brick, C., & Leckman, J. F. (2013). Editorial commentary: Resilience in child development -- Interconnected pathways to wellbeing. *Journal of Child Psychology and Psychiatry*, *54*, 333-336. doi: 10.1111/jcpp.12057

Parent, J., Jones, D. J., Forehand, R., Cuellar, J., & Shoulberg, E. K. (2013). The role of coparents in African American single-mother families: The indirect effect of coparent identity on youth psychosocial adjustment. *Journal of Family Psychology, 27*, 252-262. doi: 10.1037/a0031477

Parker, J. D. A., Summerfeldt, L. J., Hogan, M. J., & Majeski, S. A. (2004). Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and Individual Differences, 36,* 163-172. doi: 10.1016/S0191-8869(03)00076-X

Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys.* Eugene, OR: Castalia.

Peterson, C. (2006). *A primer in positive psychology.* New York, NY: Oxford University Press.

Petts, R. J. (2012). Single mothers' religious participation and early childhood behavior. *Journal of Marriage and Family, 74*, 251-268. doi: 10.1111/j.1741-3737.2011.00953.x

Phares, V., Lopez, E., Fields, S., Kamboukos, D., & Duhig, A. M. (2005). Are fathers involved in pediatric psychology research and treatment? *Journal of Pediatric Psychology*, *30*, 631-643. doi: 10.1093/jpepsy/jsi050

Phillips, D. A., & Lowenstein, A. E. (2011). Early care, education, and child development. *Annual Review of Psychology*, *62*, 483-500. doi: 10.1146/annurev.psych.031809.130707

Phillips, D., McCartney, K., & Sussman, A. (2006). Child care and early development. In K. McCartney & D. Phillips, (Eds.), *Blackwell handbook of early childhood development* (Vol. 10) (pp. 471-489). Malden, MA: Wiley-Blackwell.

Pianta, R.C. (1999). *Enhancing relationships between children and teachers*. Washington, DC: American

Psychological Association.

Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 365-386). Boston, MA: Springer.

Pianta, R. C. & Walsh, D. J. (1998). *High-risk children in schools: Constructing sustaining relationships.* New York, NY: Routledge.

Piko, B. F., & Eszter, K. (2010). Do parents and school matter? Protective factors for adolescent substance use. *Addictive Behaviors*, *35*, 53-56. doi: 10.1016/j.addbeh.2009.08.004

Pinquart, M., Feussner, C., & Ahnert, L. (2013). Meta-analytic evidence for stability in attachments from infancy to early adulthood. *Attachment and Human Development*, *15*, 189-218. doi: 10.1080/14616734.2013.746257

Poduska, J. M., Kellam, S. G., Wang, W., Brown, C. H., Ialongo, N. S., & Toyinbo, P. (2008). Impact of the Good Behavior Game, a universal classroom-based behavior intervention, on young adult service use for problems with emotions, behavior, or drugs or alcohol. *Drug and Alcohol Dependence, 95*, 29-44. doi: 10.1016/j.drugalcdep.2007.10.009

Reis, H. T., Collins, W. A., & Berscheid, E. (2000). The relationship context of human behavior and development. *Psychological Bulletin*, *126*, 844-872. doi: 10.1037/0033-2909.126.6.844

Rhodes, J. E., Grossman, J. B. & Resch, N. L. (2000). Agents of change: Pathways through which mentoring relationships influence adolescents' academic adjustment. *Child Development*, *71,* 1662-1671. doi: 10.1111/1467-8624.00256

Rivers, S. E., Brackett, M. A., Reyes, M. R., Mayer, J. D., Caruso, D. R., Salovey, P. (2012). Measuring emotional intelligence in early adolescence with the MSCEIT-YV: Psychometric properties and relationship with academic performance and psychosocial functioning. *Journal of Psychoeducational Assessment*, *30*, 344-366. doi: 10.1177/0734282912449443

Roisman, G. I., Newman, D. A., Fraley, R. C., Haltigan, J. D., Groh, A. M., & Haydon, K. C. (2012). Distinguishing differential susceptibility from diathesis–stress: Recommendations for evaluating interaction effects. *Development and Psychopathology*, *24*, 389-409. doi:10.1017/S0954579412000065.

Roisman, G. I., Padron, E., Sroufe, L. A., & Egeland, B. (2002). Earned-secure attachment status in retrospect and prospect. *Child Development*, *73,* 1204-1219. doi: 10.1111/1467-8624.00467

Rose, A. J., Carlson, W., & Waller, E. M. (2007). Prospective associations of co-rumination with friendship and emotional adjustment: Considering the socioemotional trade-offs of co-rumination. *Developmental Psychology, 43*, 1019-1031. doi: 10.1037/0012-1649.43.4.1019

Rosen, L. D., Cheever, N. A., & Carrier, L. M. (2008). The association of parenting style and child age with parental limit setting and adolescent MySpace behavior. *Journal of Applied Developmental Psychology*, *29*, 459-471. doi: 10.1016/j.appdev.2008.07.005

Roth, G., Assor, A., Niemiec, C. P., Ryan, R. M., & Deci, E. L. (2009). The emotional and academic consequences of parental conditional regard: Comparing conditional positive regard, conditional negative regard, and autonomy support as parenting practices. *Developmental Psychology*, *45*, 1119-1142. doi: 10.1037/a0015272

Rotheram-Borus, M. J., Stein, J. A., & Lin, Y. Y. (2001). Impact of parent death and an intervention on the adjustment of adolescents whose parents have HIV/AIDS. *Journal of Consulting and Clinical Psychology*, *69*, 763. doi: 10.1037/0022-006X.69.5.763

Rotheram-Borus, M.J., Swendeman, D., & Flannery, D. (2009). Family wellness, not HIV prevention. *AIDS and Behavior,* 13, 409-413. doi: 10.1007/s10461-008-9515-9.

Rotheram-Borus, M. J., Swendeman, D., Lee, S. J., Li, L., Amani, B., & Nartey, M. (2011). Interventions for families affected by HIV. *Translational behavioral medicine*, *1*, 313-326. doi: 10.1007/s13142-011-0043-1

Rowe, R., Maughan, B., Worthman, C. M., Costello, E.J., & Angold, A. (2004). Testosterone, antisocial behavior, and social dominance in boys: Pubertal development and biosocial interaction.

Biological Psychiatry, 55, 546-52. doi:10.1016/j.biopsych.2003.10.010

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 57,* 316-331. doi:10.1111/j.1939-0025.1987.tb03541.x -

Rutter, M. (2000). Resilience reconsidered: Conceptual considerations, empirical findings, and policy implications. In J. P. Shonkoff & S. J. Meisels (Eds.), *Handbook of early childhood intervention* (*Second Edition*) (pp. 651-682). New York, NY: Cambridge University Press.

Rutter, M. (2006). *Genes and behavior: Nature–nurture interplay explained.* Malden, MA: Blackwell.

Rutter, M. (2012). Resilience as a dynamic concept. *Development and Psychopathology, 24*, 335-344. doi: 10.1017/S0954579412000028

Rutter, M., Sonuga-Barke, E. J., & Castle, J. (2010). Investigating the impact of early institutional deprivation on development: Background and research strategy of the English and Romanian adoptees (ERA) study. *Monographs of the Society for Research in Child Development*, *75*, 1-20. doi: 10.1111/j.1540-5834.2010.00548.x

Sabol, T. J., & Pianta, R. C. (2012). Recent trends in research on teacher–child relationships. *Attachment & Human Development*, *14*, 213-231. doi: 10.1080/14616734.2012.672262

Sameroff, A. J. (2010). A unified theory of development: A dialectic integration of nature and nurture. *Child Development*, *81*, 6-22. doi: 10.1111/j.1467-8624.2009.01378.x

Sameroff, A. J., Seifer, R., Zax, M., & Barocas, R. (1987). Early indicators of developmental risk: The Rochester Longitudinal Study. *Schizophrenia Bulletin, 13,* 383-393. doi: 10.1093/schbul/13.3.383

Schneider, W.J., Cavell, T.A., & Hughes, J. N. (2003). A sense of containment: Potential moderator of the relation between parenting practices and children's externalizing behaviors. *Development and Psychopathology, 15*, 95-117. doi:10.1017.S0954579403000063.

Shapiro, C. J., Smith, B. H., Malone, P. S., & Collaro, A. L. (2010). Natural experiment in deviant peer exposure and youth recidivism. *Journal of Clinical Child and Adolescent Psychology, 39*, 242-251. doi: 10.1080/15374410903532635

Sharkey, P. (2010). The acute effect of local homicides on children's cognitive performance. *Proceedings of the National Academy of Sciences USA, 107*, 11733-11738. doi: 10.1073/pnas.1000690107

Sharkey, P., & Sampson, R. J. (2010). Destination effects: Residential mobility and trajectories of adolescent violence in a stratified metropolis. *Criminology*, *48*, 639-681. doi: 10.1111/j.1745-9125.2010.00198.x

Shaw, D. S., Bell, R. Q., & Gilliom, M. (2000). A truly early starter model of antisocial behavior revisited. *Clinical Child and Family Psychology Review, 3*, 155-172. doi: 10.1023/A:1009599208790

Shaw, D. S., Hyde, L. W., & Brennan, L. M. (2012). Early predictors of boys' antisocial trajectories. *Development and Psychopathology*, *24*, 871-888. doi: 10.1017/S0954579412000429

Sheridan, M. A., Fox, N. A., Zeanah, C. H., McLaughlin, K. A., & Nelson, C. A. 3rd (2012). Variation in neural development as a result of exposure to institutionalization early in childhood. *Proceedings of the National Academy of Sciences of the United States of America, 109*, 12927–12932. doi: 10.1073/pnas.1200041109

Shonkoff, J. P., Garner, A. S., et al. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics, 129,* e232 - e246. doi: 10.1542/peds.2011-2663.

Shonkoff, J. P., & Fisher, P. A. (2013). Rethinking evidence-based practice and two-generation programs to create the future of early childhood policy. *Development and Psychopathology*, *25*, 1635-1653.

Shonkoff, J. P. & Phillips, D. A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development.* Washington, DC, US: National Academy Press.

Silverstein, M., & Ruiz, S. (2006). Breaking the chain: How grandparents moderate the transmission of maternal depression to their grandchildren. *Family Relations*, *55*, 601-612. doi: 10.1111/j.1741-3729.2006.00429.x

Skinner, E. A., Zimmer-Gembeck, M. J., & Connell, J. P. (1998). Individual differences and the development of perceived control. *Monographs of the Society for Research in Child*

Development, 63, 1-16. doi: 10.1111/j.1540-5834.1998.tb02760.x

Sroufe, L. A., Coffino, B. & Carlson, E. A. (2010). Conceptualizing the role of early experience: Lessons from the Minnesota Longitudinal Study. *Developmental Review, 30*, 36-51. doi: 10.1016/j.dr.2009.12.002

Suizzo, M., Jackson, K. M., Pahlke, E., Marroquin, Y., Blondeau, L., & Martinez, A. (2012). Pathways to achievement: How low-income Mexican-origin parents promote their adolescents through school. *Family Relations, 61*, 533-547. doi: 10.1111/j.1741-3729.2012.00727.x

Suomi, S. J. (2006). Risk, resilience, and gene x environment interactions in rhesus monkeys. *Annals of the New York Academy of Sciences, 1094,* 52-62. doi: 10.1196/annals.1376.006

Taylor, S. E. (2006). Tend and befriend: Biobehavioral bases of affiliation under stress. *Current Directions in Psychological Science, 15*, 273-277. doi: 10.1111/j.1467-8721.2006.00451.x

Tiet, Q. Q., Huizinga, D., & Byrnes, H. F. (2010). Predictors of resilience among inner city youths. *Journal of Child and Family Studies, 19*, 360-378. doi: 10.1007/s10826-009-9307-5

Tol, W. A., Komproe, I. H., Jordans, M. J. D., Gross, A. L., Susanty, D., Macy, R. D., & de Jong, J. T. V. M. (2010). Mediators and moderators of a psychosocial intervention for children affected by political violence. *Journal of Consulting and Clinical Psychology, 78,* 818–828. doi: 10.1037/a0021348.

Tol, W. A., Song, S., & Jordans, M. J. D. (2013). Annual research review: Resilience and mental health in children and adolescents living in areas of armed conflict - a systematic review of findings in low- and middle-income countries. *Journal of Child Psychology and Psychiatry*, *54*, 445-460. doi: 10.1111/jcpp.12053

Tolan, P., Gorman-Smith, D., & Henry, D. (2004). Supporting families in a high-risk setting: proximal effects of the SAFE children prevention program. *Journal of Consulting and Clinical Psychology, 72,* 855-869. doi: 10.1037/0022-006X.72.5.855

Treboux, D., Crowell, J. A., & Waters, E. (2004). When "new" meets "old": Configurations of adult attachment representations and their implications for marital functioning. *Developmental Psychology, 40,* 295-314. doi: 10.1037/0012-1649.40.2.295

Trinidad, D. R., & Johnson, C. A. (2002). The association between emotional intelligence and early adolescent tobacco and alcohol use. *Personality and Individual Differences, 32,* 95-105. doi: 10.1016/S0191-8869(01)00008-3

Ungar, M. (Ed.) (2012). *The social ecology of resilience: A handbook of theory and practice*. New York, NY: Springer.

Ungar, M. (2013). Resilience after maltreatment: The importance of social services as facilitators of positive adaptation. *Child Abuse and Neglect, 37,* 110-115. doi: 10.1016/j.chiabu.2012.08.004

Ungar, M., Ghazinour, M., & Richter, J. (2013). Annual research review: What is resilience within the social ecology of human development? *The Journal of Child Psychology and Psychiatry*, *54*, 348-366. doi: 10.1111/jcpp.12025

United States Department of Labor, Bureau of Labor Statistics (2013). Occupational employment statistics. Retrieved from http://www.bls.gov/oes/

Valdez, C. R., Mills, C. L., Barrueco, S., Leis, J., & Riley, A. W. (2011). A pilot study of a family-focused intervention for children and families affected by maternal depression. *Journal of Family Therapy, 33*, 3-19. doi: 10.1111/j.1467-6427.2010.00529.x

Vaillant, G.E. (2012). *Triumphs of experience: The men of the Harvard Grant Study*. Cambridge, MA: Harvard University Press.

Vaillant, G. E., & Davis, J. T. (2000). Social/emotional intelligence and midlife resilience in schoolboys with low tested intelligence. *American Journal of Orthopsychiatry, 70,* 215-222. doi: 10.1037/h0087783

van den Dries, L., Juffer, F., van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2009). Fostering security? A meta-analysis of attachment in adopted children. *Children and Youth Services Review*, *31*, 410-421. doi: 10.1016/j.childyouth.2008.09.008

Van Ryzin, M. J., Carlson, E. A., & Sroufe, L. A. (2011). Attachment discontinuity in a high-risk sample.

Attachment & Human Development, 13, 381-401. doi: 10.1080/14616734.2011.584403

Vandell, D. L., Belsky, J., Burchinal, M., Steinberg, L., Vandergrift, N. and NICHD Early Child Care Research Network (2010). Do effects of early child care extend to age 15 years? Results from the NICHD Study of Early Child Care and Youth Development. *Child Development, 81*, 737–756. doi: 10.1111/j.1467-8624.2010.01431

Vanderbilt-Adriance, E., & Shaw, D. S. (2008). Conceptualizing and re-evaluating resilience across levels of risk, time, and domains of competence. *Clinical Child and Family Psychology Review, 11,* 30-58. doi:10.1007/s10567-008-0031-2

Walker, K., Bowen, E., & Brown, S. (2013). Psychological and criminological factors associated with desistance from violence: A review of the literature. *Aggression and Violent Behavior*, *18*, 286-299. doi: 10.1016/j.avb.2012.11.021

Walton, A., & Flouri, E. (2010). Contextual risk, maternal parenting and adolescent externalizing behaviour problems: The role of emotion regulation. *Child: Care, Health and Development, 36*, 275-284. doi: 10.1111/j.1365-2214.2009.01065.x

Webster-Stratton, C. (2001). The Incredible Years: Parents, teachers, and children training series. *Residential Treatment for Children & Youth, 18*, 31–45. doi: 10.1300/J007v18n03_04

Weinfield, N. S., Whaley, G. J., & Egeland, B. (2004). Continuity, discontinuity, and coherence in attachment from infancy to late adolescence: Sequelae of organization and disorganization. *Attachment & Human Development*, *6*, 73-97. doi:10.1080/14616730310001659566

Weisner, T. S. (Ed.) (2005). *Discovering successful pathways in children's development: Mixed methods in the study of childhood and family life.* Chicago, IL: University of Chicago Press.

Werner, E. E. (2012). Children and war: Risk, resilience, and recovery. *Development and Psychopathology*, *24*, 553-558. doi:10.1017/S0954579412000156

Werner, E. E, & Johnson, J. L. (2004). The role of caring adults in the lives of children of alcoholics. *Substance Use & Misuse, 39*, 699-720. doi: 10.1081/JA-120034012

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

Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood.* Ithaca, NY: Cornell University Press.

Williams, K. E., Ciarrochi, J., & Heaven, P. C. L. (2012). Inflexible parents, inflexible kids: A 6-year longitudinal study of parenting style and the development of psychological flexibility in adolescents. *Journal of Youth and Adolescents*, *41*, 1053-1066. doi: 10.1007/s10964-012-9744-0

Williams, T. M., Joy, L. A., Travis, L., Gotowiec, A., Blum-Steele, M., Aiken, L. S., ... & Davidson, S. M. (1987). Transition to motherhood: A longitudinal study. *Infant Mental Health Journal*, *8*(3), 251-265. Doi: 10.1002/1097-0355(198723)8:3<251

Wolchik, S. A., Schenck, C. E., & Sandler, I. N. (2009). Promoting resilience in youth from divorced families: Lessons learned from experimental trials of the New Beginnings Program. *Journal of Personality, 77*, 1833-1868. doi: 10.1111/j.1467-6494.2009.00602.x

Wolmer, L., Hamiel, D., & Laor, N. (2011). Preventing children's posttraumatic stress after disaster with teacher-based intervention: A controlled study. *Journal of the American Academy of Child and Adolescent Psychiatry, 50*, 340-348. doi: 10.1016/j.jaac.2011.01.002

Yates, T. M., & Grey, I. K. (2012). Adapting to aging out: Profiles of risk and resilience among emancipated foster youth. *Development and Psychopathology*, *24*, 475-492. doi:10.1017/S0954579412000107

Yates, T. M., & Masten, A. S. (2004). Fostering the future: Resilience theory and the practice of positive psychology. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in practice* (pp. 521-539). Hoboken, NJ: Wiley.

Yeung Thompson, R. S., & Leadbeater, B. J. (2013). Peer victimization and internalizing symptoms from adolescence into young adulthood: Building strength through emotional support. *Journal of Research on Adolescence, 23*, 290-303. doi: 10.1111/j.1532-7795.2012.00827.x

Zautra, A. J. (2014). Resilience is social, after all. To appear in Kent, M, Davis, M.C., & Reich, J.W.

(Eds., pp. 185-196). *Handbook of resilience approaches to stress and trauma.* New York: Rutledge.

Zhang, S., & Anderson, S. G. (2010). Low-income single mothers' community violence exposure and aggressive parenting practices. *Children and Youth Services Review, 32*, 889-895. doi: 10.1016/j.childyouth.2010.02.010

Zhou, Q., Valiente, C., & Eisenberg, N. (2003). Empathy and its measurement. In S. J. Lopez & C. R. Snyder (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp. 269-284). Washington, DC: American Psychological Association.

Zigler, E., & Finn- Stevenson, M. (2007). From research to policy and practice: The school of the 21st century. *American Journal of Orthopsychiatry, 77*, 175-181. doi: 10.1037/0002-9432.77.2.175

Zimmerman, M. A., Stewart, S. E., Morrel-Samuels, S., Franzen, S., & Reischl, T. M. (2011). Youth empowerment solutions for peaceful communities: Combining theory and practice in a community-level violence prevention curriculum. *Health Promotion Practice, 12*, 425-439. doi: 10.1177/1524839909357316

Figure 1. Multi-level, transactional systems: Prominent risk-modifiers fostering childhood resilience.
    Note. As used here, the term "Mother" refers to the child's primary caregiver, but this could be
    the father in some at-risk families.   The emphasis is on ensuring gender-sensitivity in
    conceptualizing predictors of the primary parent's well-being.