

Chapter 10

Promoting Resilience in Early Childhood



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Introduction

Resilience is a dynamic process of positive adaptation to an individual's exposure to adversity or trauma (Luthar & Cicchetti, 2000). Research underscores the importance of promoting resilience early in life because early life experiences—especially relationships with primary caregivers—play a central role in brain development, gene expression, social and emotional well-being, and learning (McEwen, 2016; National Scientific Council on the Developing Child, 2010). This chapter provides an overview of resilience theory and related concepts on promoting resilience and well-being among young children and their families. In addition, we describe examples of evidence-based interventions and specific protective factors that can buffer young children from the deleterious effects of exposure to significant adversity and improve their odds of following resilient developmental trajectories.

The approach to resilience we present in this chapter intentionally represents a shift away from deficit models toward a strengths-based approach that is aligned with cultural competency and racial equity (García Coll et al., 1996; Saleeby, 2013; Walsh, 2006). It is also sensitive to the multiple, dynamic, and adaptive systems in which children live and grow, including the home, early care and education environments, and neighborhoods, as well as local, state, and federal policies (Bronfenbrenner & Morris, 2006). We begin the chapter by describing resilience theory and related theoretical frameworks that shape contemporary understanding of positive adaptation to hardship early in life. Next, we highlight examples of evidence-based interventions and services that align with this theoretical approach. These exemplars are

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limited to interventions with at least one study using a rigorous design (randomized controlled trial [RCT] or quasi-experimental design [QED]) and with findings that demonstrate positive impacts on intended outcomes. We then offer suggestions for nurturing resilience among young children and their families more broadly. Finally, we discuss related implications for policymakers, practitioners, and researchers and consider next steps for growth in the field.

Theoretical Frameworks for Understanding Resilience in Early Childhood

Resilience Theory

Almost five decades have passed since pioneering researchers such as Lois Murphy, Norman Garmezy, Michael Rutter, and Emmy Werner first began to study competence in children exposed to trauma and adversity. These early investigators observed children exposed to a wide range of biological and psychosocial risks (e.g., parental mental illness, poverty, child abuse and neglect) and yet exhibited positive adaptation (Garmezy, 1974; Masten et al., 1990; Werner & Smith, 1982/1992). Their studies sought answers to simple yet groundbreaking questions: “Why do some children do well while others do not?” “What accounts for diverse pathways of adaptation to adversity?” “What factors buffer children against poor life outcomes?” These inquiries challenged the prevailing notion that mental illness and disorders were inevitable outcomes of childhood exposure to unfavorable conditions. Indeed, the empirical research on exposure to adversity showed a full range of human adaptation, which helped catalyze a paradigmatic shift in the psychological and developmental sciences from a preoccupation with risk factors and psychopathology to an appreciation for protective factors and resilience.

Research shows conclusively that exposure to severe, chronic, and cumulative adversity, especially during sensitive periods of development—most notably early childhood—both can cause immediate harm to children and predispose them to many of the most common physical and mental health problems later in life, including obesity, cardiovascular disease, depression, anxiety, and substance abuse (Cameron et al., 2017; Shonkoff et al., 2009). Among the most vulnerable to trauma and adversity are children who live in poverty, have low levels of education, and whose families have been exposed to historical and structural racism due to disproportionate exposure to personal, family, and environmental stressors (Harrell, 2000; Shonkoff et al., 2009; Trent et al., 2019). However, numerous studies show that children can thrive despite these experiences when they have appropriate supports (Werner & Smith, 1982/1992).

While resilience is often characterized as an extraordinary response to adverse conditions, most experts agree that it is a universal human capacity arising from the normative functions of human adaptational systems (Masten, 2001). That is, all

children are born with the innate characteristics they need to exhibit resilience. The concept of resilience thus has both widespread and practical implications—the potential to learn from circumstances that promote positive development despite exposure to adversity and to translate this knowledge into policy and practice that can improve the lives of children in the future (Masten & Powell, 2003; Masten, 2007). From its inception, resilience theory has highlighted the importance of transferring scientific findings from laboratories to infuse work “on the ground” by elucidating pathways of healthy development despite hardship that can be supported through prevention and early intervention. Applying resilience theory to early childhood policy and practice is likely to be effective; as Luthar (2006) explains, “it is far more prudent to promote the development of resilient functioning early in the course of development rather than to implement treatments to repair disorders once they are already crystalized” (p. 739).

Any inference of resilience depends on the presence of two conditions: (1) a significant threat to an individual’s well-being and (2) positive adaptation in the context of exposure to that threat (e.g., achieving a stage-salient task, maintaining or regaining psychological health, exhibiting better than expected outcomes) (Masten, 2001). However, resilience theory has been refined over time, progressing from an exclusive focus on individual characteristics associated with resilience (i.e., individual-level protective factors), such as an easy temperament and intelligence, to a broader view of resilience as a product of interactions between individuals and their environments (Masten, 2007). Resilience is not a personal trait, nor a set of skills or capacities that can be cultivated. Thus, it is helpful to avoid using the terms *resiliency* or *resilient* to describe children (i.e., “a resilient child” or “promoting resilience in children”) and instead apply the term to their adjustment or development, which are products of interactions between children and their environments (Luthar et al., 2000; Luthar & Cicchetti, 2000).

Multilevel Influences on Resilience Resilience theory has moved toward a dynamic systems perspective that spans multiple disciplines (e.g., neurobiological, behavioral, and environmental) and levels of influence (e.g., community, family, and individual) (Masten, 2021). Risk and protective factors (i.e., predictors of negative and positive life outcomes, respectively) derive from individual characteristics and attributes of the many environments with which young children interact (Luthar & Cicchetti, 2000). Risk and protective factors at each level interact and depend on the others. Both can lead to cascading effects through these systems, facilitating (or inhibiting) positive development (Kalisch et al., 2019).

Multilevel influences also include biological processes. Stress can trigger biological responses, which influence and are influenced by an individual’s experiences, including family, community, and cultural contexts, as well as their developmental history and the timing of adverse experiences (Cicchetti & Rogosch, 2009). Biological processes can also buffer children against the impact of stress (Feder et al., 2019). Indeed, many systemic and neural processes that are activated by potentially threatening experiences, such as the production of stress hormones (e.g., cortisol and adrenaline), increased blood pressure, metabolism, and immune

function, are designed to promote health and resilience when activated for short periods of time (McEwen, 2001). Yet, when repeatedly or chronically activated, these processes also affect gene expression (i.e., whether a gene is activated or not) and alter the way the body responds to stress (McEwen, 2016). Variation in a young child's stress responses can lead to differential susceptibility to both adverse and supportive environments (Boyce, 2016). In sum, resilience is a multiply-determined process that changes with shifting circumstances (e.g., the balance of risk and protective factors). Thus, there are myriad pathways to adaptive and maladaptive behaviors (equifinality), as well as a wide range of outcomes to similar life experiences (multifinality) (Cicchetti & Rogosh, 1996).

Transactional Theories of Human Development

Resilience theory is consistent with several seminal theories that focus on the dynamic, transactional, person-in-context nature of human development. For example, bioecological systems theory posits that human development is a transactional process in which individual development is shaped through an individual's interactions with multiple levels of the environment, ranging from proximal (e.g., parent and family) to distal (e.g., societal beliefs and norms) (Bronfenbrenner & Morris, 2006; Ungar et al., 2013). Similarly, Sameroff's transactional model of development posits that an individual's developmental status and potential are functions of a dynamic interaction between biological heritage and life experiences, including bidirectional interactions between children and their primary caregivers (Sameroff & MacKenzie, 2003). Resilience theory is also compatible with dynamic systems theory (Thelen & Smith, 2006), which views human beings as self-organizing systems that can respond to stress in complex and nonlinear ways (Keenan, 2010). However, transactional theories differ from resilience theory, with the latter approach emphasizes positive adaptation to adversity—a focus more aligned with strengths-based perspectives and theories (e.g., Saleeby, 2013; Walsh, 2006).

Attachment Theory

A discussion of resilience in early childhood necessitates attention to parent-child relationships and, relatedly, to attachment theory. While attachment theory has developed independently from resilience theory—with its own history, evolution, and body of knowledge—attachment and resilience theory are complementary. Attachment theory originated from John Bowlby's seminal work in the 1940s and was further refined by Mary Ainsworth in the 1960s. It asserts that the primary goal for infants and young children is to establish an attachment with a primary caretaker (biological parent or other caregiver), who provides a secure base for the child to

develop healthy emotional and self-regulation skills (Bowlby, 1973; Ainsworth et al., 1978).

Bowlby theorized that infants develop an *internal working model* of early relationships based on daily experiences with an attachment figure, with *secure* attachments formed when a child's expectations that their caregiver responds to their emotional signals sensitively and appropriately (Bowlby, 1982). A secure attachment allows for trust in a caregiver's emotional and physical availability, allowing the child to devote more cognitive resources to exploration, stimulating development in multiple domains (Grossman et al., 2005). By contrast, an insecure attachment develops when caregivers provide more sporadic and unpredictable responses to the child's cues, leading children to react with heightened distress in the absence of their caregiver, avoidance or ambivalence when the caregiver returns, and less confidence about exploring their environment. Internal working models also form the basis for organizing and understanding affective experience (Bretherton, 1990; Crittenden, 1990), shaping young children's mental representation of self and others, helping them manage and make meaning from new and stressful experiences, and supporting the development of self-regulation skills (Schore, 2001).

Over the last two decades, attachment theory has been further developed through a neurobiological perspective that has highlighted the involvement of physiological processes, rather than solely cognitive processes, in the development of attachment. Early attachment is most impactful on early neurological structures and developmental processes, thereby initiating future developmental cascades, or cumulative consequences for development through their effects on a range of early and emerging skills which, in turn, influence a range of other skills and abilities (Glaser, 2000; Gunnar et al., 2006; Kraemer, 1992). It is in this context that a secure attachment has been re-conceptualized as an indicator of resilience (Darling Rasmussen et al., 2019; Wright et al., 2005). However, attachment was conceptualized and tested within primarily White and middle- to upper-income families in the United States. The core concepts and measures were thus shaped by Eurocentric assumptions and expectations of what is normative and adaptive. Despite efforts to test attachment with other populations, important concerns have been raised about the generalizability and applicability of categorizations of "secure" and "insecure" attachments for infants in other cultures or circumstances (Brown et al., 2008; Rothbaum et al., 2000). In addition, attachment theory typically focuses on dyadic interactions between a mother and child without consideration for the multiple primary relationships that often exist in a young child's life (e.g., with a father, grandparent, or other caregiver).

Family Systems Theory

Resilience theory is applicable not only to individuals but also to families. The family system has a strong influence on young children's ability to cope with adversity, and early childhood interventions that aim to promote resilience are likely to be

more successful when they engage families, including fathers, grandparents, aunts, uncles, and others, in a family's kinship network. Family systems theory expands potential resources for promoting child well-being by shifting the focus of attention from individual and parent-child interactions to a broader system of relationships that influence children's adjustment to adversity (Walsh, 2006, 2011). Walsh emphasizes the importance of making concerted efforts to understand a family's capacity to "withstand and rebound from disruptive life challenges, strengthened and more resourceful" (Walsh, 2011, p. 149). This approach may be especially important for children whose parents' behavior is a source of harm (e.g., child abuse and neglect; domestic violence; parental depression; and substance abuse), as working with the family and/or kinship system positions other adults to help buffer young children from harm (Ungar, 2004).

Evidence-Based Interventions That Promote Resilience in Early Childhood

A wide range of extant interventions aim to promote resilience among young children and their families. Such interventions vary in content, service delivery method, duration, intensity, and characteristics of children and families served, as well as other dimensions (National Academies of Sciences, Engineering, and Medicine, 2016; Shonkoff & Fisher, 2013). While some approaches focus on the child, others target parents and other primary caregivers, and still others use a *two-generation approach* by working with both children and their caregivers to improve child, parent, and family functioning in the presence of or following adverse experiences. Because the well-being of young children is highly dependent upon the quality of care they receive from their parents and other caregivers—including buffering children from harm in the presence of serious hardship—most successful interventions for this age group focus on both children and the adults in their lives (National Academies of Sciences, Engineering, and Medicine, 2016; National Scientific Council on the Developing Child, 2015).

Early childhood interventions also may be *universal*, meaning they are available to all or most families with young children, or *targeted*, offering services to families experiencing specific adversities, such as poverty, developmental delays, child abuse and neglect, or trauma. In addition, some program models are *tiered*, with different levels and types of intervention offered depending on the family's needs and level of risk to children, while others are *comprehensive*, offering multidisciplinary services to address a wide range of family needs.

Examples of Promotion and Prevention Programs

Interventions that aim to prevent or reduce exposure to adverse experiences and to promote healthy development in early childhood use public health campaigns to raise awareness (e.g., the “Back to Sleep” campaign for reducing the incidence of sudden infant death syndrome) or focus on intervening directly with parents or directly with children. Examples of parent-focused programs include parenting programs, home visitation models, or other “family support” programs that aim to educate parents on topics such as health, nutrition, prenatal care, normative child development, and age-appropriate ways to support children’s development (Webster-Stratton & Taylor, 2001). The primary forms of intervention that directly target children in early childhood include age-appropriate learning experiences that stimulate cognitive, linguistic, social, and behavioral development through early childhood education (ECE) programs. Some parent- and child-focused interventions are offered to all families (*universal*); others are tailored to specific populations (*targeted*). Next, we highlight several effective interventions to illustrate effective approaches to promoting resilience in early childhood.

Home Visiting Home visiting is a popular methodology used to deliver family support services to expectant parents and parents of children birth to age 5 where they live. Some home visiting programs are made available to all parents, while others target subgroups of families, such as first-time parents, teen mothers, and families with children with chronic health conditions or other special needs (Supplee, 2016). Outcomes for parents and children targeted by home visiting models include both proximal outcomes, such as improvements in parenting practices, maternal mental health, and child health and development and reductions in child abuse and neglect, and more distal outcomes, such as reduced juvenile delinquency and increased family economic self-sufficiency (Gomby et al., 1999; Sama-Miller et al., 2018). Evaluations of home visiting models have shown mixed results but generally conclude that home visiting is an effective methodology for delivering support to at-risk families (Gomby et al., 1999; Howard & Brooks-Gunn, 2009; Sama-Miller et al., 2018). Two home visiting models, Healthy Families America (HFA) and Nurse-Family Partnership (NFP), have been found to have the most positive impacts across targeted outcomes (Sama-Miller et al., 2018). Both models are among those that receive support for implementation in states, tribes, and territories through the federally funded Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program.

NFP was initially developed as an intervention targeted at first-time teen mothers with a goal of increasing the spacing between births and reducing child abuse and neglect (Olds, 2006). A key feature of NFP is delivery of services and child development information by a licensed nurse starting prenatally and continuing through the child’s second year. NFP has been found to be effective in multiple communities and has shown long-term positive impacts on outcomes for mothers (e.g., delay of second birth, fewer subsequent pregnancies, increased employment) and children

(e.g., reductions in language delays, behavior problems, and adolescent criminal behavior, improved academic outcomes) (Kitzman et al., 2019; Olds, 1998; Olds et al., 1997).

HFA was also designed to prevent child abuse and neglect. A model program developed by the Hawaii Family Stress Center was the basis for HFA, which offers a flexible model of service delivery to prenatal families and families with children up to age 5. As long as communities preserve 35 “critical elements” of the model, they can tailor HFA’s research-based structure to their cultural and/or linguistic needs. Rigorous research has established HFA’s effectiveness in reducing child maltreatment across geographic and cultural contexts and positive impacts for parents (e.g., reductions in subsequent births, substance use, and domestic violence, increased economic self-sufficiency) and children (e.g., reductions in birth complications, abuse and neglect) (Harding et al., 2007).

Early Childhood Education Early childhood education (ECE) programs have historically served as supports for both working parents and for children’s development (Zaslow et al., 2013). Consequently, ECE is viewed as a *universal* intervention that promotes positive outcomes for children and families and has the potential to prevent or mitigate harmful outcomes (Schindler et al., 2015). Meta-analyses of ECE programs have concluded that participation in ECE prevents early externalizing behaviors and later antisocial behavior in children, with programs that intensively target children’s social-emotional development having the largest impact (Schindler et al., 2015). Other meta-analyses have found that participation in ECE (regardless of quality level) leads to reductions in special education placements and grade retention and increases in high school graduation rates (McCoy et al., 2017). Syntheses of research have shown that ECE benefits children across racial/ethnic groups and that positive impacts for dual language learners and children of immigrants are as strong or stronger than those seen for English-only speaking children and native-born children, respectively (Yoshikawa et al., 2013). Children from low- and middle-income households also reap more benefits related to cognitive and academic outcomes compared to children from higher-income households, with the greatest impacts for children living in or near poverty (Barnett, 1998; Yoshikawa et al., 2013). The relative advantage of ECE for children from low-income families suggests that increasing access to high-quality ECE for families struggling from economic adversity would be a useful *targeted* intervention.

While high-quality ECE has been found to promote positive developmental outcomes for young children, statistical associations between ECE quality and child outcomes are modest (Burchinal et al., 2011; Burchinal et al., 2016). The associations are often strongest when there is close, substantive alignment between the nature of the supports for child development (e.g., a teacher’s responsiveness to a child’s distress) and the outcomes of interest (e.g., children’s emotion regulation) (Burchinal et al., 2016). Based on findings that domain-specific competencies in ECE settings are best fostered by practices that specifically target them (Burchinal et al., 2016), some ECE programs implement specific curricula or evidence-based practices aimed at supporting young children’s social-emotional well-being and

resilience. One example is the “Pyramid Model,” which has been widely integrated into ECE programs.

Pyramid Model The Center for the Social and Emotional Foundations for Early Learning (CSFEL) and the Technical Assistance Center on Social Emotional Intervention for Young Children (TACSEI) developed the Pyramid Model for Promoting Social Emotional Competence in Infants and Young Children (Pyramid Model), a conceptual framework of evidence-based practices for promoting children’s social and emotional development. It can be used by ECE professionals as well as families. The model embodies the idea that some practices should be used with all children universally while others are reserved for (or targeted to) children who need special support. An RCT testing the implementation of the Pyramid Model in public preschool classrooms in two states found that children enrolled in experimental classrooms had better social skills and fewer challenging behaviors compared to children in control classrooms (Hemmeter et al., 2016). Additional exploratory analyses indicated children at high risk for behavior disorders had better social interaction skills compared to children in control classrooms.

Head Start and Early Head Start Head Start is the largest, federally funded ECE program for children from low-income households. Since 1965, Head Start (HS) has been providing low-income families with 3- to 5-year-old children support for children’s early academic learning and social-emotional development, support for parents to be their child’s first teacher and most importantly advocate, and access to comprehensive services including health screenings and referrals, nutrition support, and links to social welfare services (e.g., housing, employment, continuing education). In 1994, Early Head Start (EHS) was launched to provide early learning and development supports to infants and toddlers in low-income households and comprehensive services to income-eligible pregnant women and families with children up to age 3. Both families experiencing homelessness and children in foster care are also eligible for HS and EHS. In addition, 10% of enrollment slots are specifically set aside for children with disabilities and other special needs. The HS/EHS model can be provided in centers, family child care homes, and through home visiting (or a combination of these approaches). Although the funding comes from the federal government, the program is administered locally through grants to community-based agencies, though some states are HS/EHS grantees. This federal-to-local arrangement allows each program to be tailored to the needs of the community. For example, nearly 41,000 children of American Indian and Alaskan Native heritage are currently served in tribal and non-tribal programs. Children up to age 5 whose parents are agricultural laborers may participate in Migrant and Seasonal Head Start. All programs must offer services to both children and their families (a two-generation approach) and adhere to federal quality standards (for further information, see <https://www.acf.hhs.gov/ohs/about/head-start>).

Studies of HS during the first few decades of its existence suggested the program had lasting benefits for participants in terms of reductions in special education placements and grade retention in formal schooling, which offset the costs of the

program (Ludwig & Phillips, 2008). Recent studies have reported long-term positive effects of HS on health outcomes (Ludwig & Miller, 2007), a constellation of young adult outcomes (i.e., high school graduation, college attendance, crime, teen parenting, health status; Deming, 2009; Garces et al., 2002), and educational, social-emotional, and parenting outcomes (Bauer & Schanzenbach, 2016).

An experimental study of approximately 5000 3- and 4-year-old children applying to enter HS in the fall of 2002, known as the Head Start Impact Study (HSIS), was designed to test the causal impacts of HS. This RCT found small but significant impacts on cognitive skills after 1 year of HS (Puma et al., 2005), but the academic benefits of HS faded by first grade (Puma et al., 2010) and were not statistically detectable by third grade (Puma et al., 2012). However, multiple researchers identified limitations in the experimental design of the HSIS, including non-compliance with random assignment by participating families (Bauer & Schanzenbach, 2016). Approximately 15% of 3-year-olds and 21% of 4-year-olds randomly assigned to the HS condition in the HSIS *did not* attend HS, and 15% of 3-year-olds and 12% of 4-year-olds experimentally assigned to the control group in the HSIS *did* enroll in HS (Kline & Walters, 2016). When HSIS data were reanalyzed accounting for actual ECE placements, HS impacts were moderate compared to children in home-based care; there were no academic impacts of HS (Feller et al., 2016; Kline & Walters, 2016).

An RCT of EHS was conducted, as well. The Early Head Start Research and Evaluation Project (EHSREP) randomly assigned approximately 3000 income-eligible families with infants and toddlers to EHS or another program. Findings indicated that, at age 3, children participating in EHS had higher scores on cognitive and language assessments, demonstrated more sustained attention and higher levels of emotional engagement, and had lower levels of aggression than did children in the control group (Love et al., 2005). Parents in EHS demonstrated more emotional support and less physical punishment of their child, as well as provided more cognitive and language stimulation to their child, than did parents in the control group (Love et al., 2005). Additional analyses on a subsample of 2794 children for whom child welfare agency records were linked found that EHS participation prevented child maltreatment through age 15 (Green et al., 2020) through impacts on parenting (e.g., low conflict, positive parent-child interactions) around the child's second birthday and child outcomes (e.g., attention, cognitive skills) at age 3. Thus, EHS appears to be successful in supporting resilience in children and parents facing economic and family adversity.

Examples of Intervention Programs In addition to a range of prevention and promotion programs designed to support environments and skills that can help buffer young children against adverse experiences, there are a number of evidence-based interventions for young children who have experienced trauma and adversity. Many interventions were designed for children exposed to maltreatment and family conflict and thus have a relational focus, with the primary objective being the repair of attachment relationships, a key protective factor (Yates et al., 2003).

Attachment and Biobehavioral Catch-Up Attachment and Biobehavioral Catch-up (ABC) is a *targeted* intervention for children ages 0–24 months and their caregivers. It was originally designed for young children in the child welfare system and, thus, targets infants and toddlers who experience neglect, abuse, intimate partner violence, and placement instability (Dozier et al., 2008). ABC is delivered to mothers and infants in their homes over the course of ten sessions. It is strongly grounded in theory and research on attachment and stress neurobiology and focuses on supporting nurturing and sensitive caregiving despite a parent’s own history or concerns; avoiding threatening or frightening caregiving behavior; and following the child’s cues when they are in a calm state (Bernard et al., 2012). ABC has been implemented with a variety of cultural groups, including African American and Latino families, and its effectiveness with young children and their parents has been documented through RCTs conducted with foster families and birth families. Studies have found higher rates of secure attachment (Bernard et al., 2012; Dozier et al., 2006) and more typical patterns of cortisol production (Dozier et al., 2008) among children in ABC compared to controls. In addition, a study of young children involved in the child welfare system due to alleged or substantiated infant neglect revealed that ABC mothers showed more sensitivity toward their infants (Bernard et al., 2012; Dozier et al., 2009).

Child-Parent Psychotherapy Child-Parent Psychotherapy (CPP) is another example of a *targeted*, relationship-based treatment that targets young children, ages birth to 6 years; it was originally developed for children who have been exposed to domestic violence or child maltreatment, but the model has evolved to serve families with a broad range of child and parent trauma exposure. Families participate for 1 year in weekly sessions, usually held in the home. CPP is based on attachment theory, cognitive behavioral therapy, stress and trauma work, and social learning theory (Lieberman & Van Horn, 2011). It focuses on restoring safety, promoting emotion regulation, improving the child-caregiver relationship, and understanding trauma’s impact on children, caregivers, and their relationships (Lieberman et al., 2005). CPP has been successfully implemented with diverse populations, including African American and Latino families, and found to be effective in promoting attachment security (Cicchetti et al., 2006) and positive self-representations (Toth et al., 2002) in maltreated young children and in decreasing behavioral problems and trauma symptoms in preschool children exposed to domestic violence (Lieberman et al., 2005). CPP also has been shown to improve maternal-toddler relationships, child behavior problems, and parental anxiety and stress (Eyberg et al., 2001; Toth et al., 2002).

Parent-Child Interaction Therapy Parent-Child Interaction Therapy (PCIT) is an intervention designed for families with children from age 2 to 12 who exhibited disruptive behaviors (Dombrowski et al., 2005; Hembree-Kigin & McNeil, 1995). PCIT targets improved quality of the parent-child relationship, reduced child behavioral problems, enhanced parenting skills, and decreased parental stress (Chaffin et al., 2004). PCIT uses 12–14 dyadic parent-child sessions with an educational component in which parents learn skills to enhance their relationships with their chil-

dren and coaching focuses on positive discipline and responsiveness to children. PCIT has been implemented with many populations, including African American, Latino, and Native American families. Like ABC and CPP, PCIT has also been evaluated through RCTs. In one study, children ages 4–12 and their parents were randomly assigned to PCIT, PCIT plus enhanced individualized services, and a community-based parenting group (Chaffin et al., 2004). Parents in PCIT had fewer negative parent-child interactions and re-reports of physical abuse compared to controls. Enhanced PCIT did not improve impacts (Chaffin et al., 2004). Other studies have shown increased parent sensitivity (Thomas & Zimmer-Gembeck, 2011) and fewer behavior problems among maltreated children ages 2–8 (Timmer et al., 2005).

Examples of Comprehensive, Tiered, and Multidisciplinary Interventions

Comprehensive interventions for young children and their families have shown some of the most compelling and positive intervention impacts, including significant returns on our investments (García et al., 2017; Heckman et al., 2010). Two of the most frequently cited examples of a comprehensive early intervention approach are the High/Scope Perry Preschool Project (Schweinhart et al., 1993) and the Abecedarian Project (Campbell et al., 1998).

The High/Scope Perry Preschool Project The High/Scope Perry Preschool Project was originally implemented from 1962 to 1967 and provided a combination of high-quality preschool education and weekly home visiting by highly trained professionals to African American children, ages 3 and 4, who were living in poverty and at high risk for poor academic performance. The program used a standardized curriculum with a focus on increasing children’s problem-solving and decision-making skills. A rigorous study with 128 children and their families found that, by age 40, individuals who participated in Perry Preschool had higher rates of high school graduation, job retention, and earnings and lower rates of adolescent pregnancy and violent crime arrests compared to those not enrolled in the program (Schweinhart, 2004).

The Abecedarian Project Another early comprehensive ECE model touted for its success, the Abecedarian Project (Campbell et al., 1998), offered year-round, high-quality, center-based care for children birth to 5. The program offered families support for child health and nutrition and access to health care and child cognitive and social-emotional development. Children received regular developmental screenings, nurses were on staff, and doctors referred children for treatment when they presented with mental and physical health problems. A longitudinal experimental study (111 children and their families experiencing economic disadvantage) revealed better outcomes for participants than for those in the control group, including positive impacts on education, employment, income, child behavior, and adult

physical health (Campbell et al., 2012). Taken together, findings on both programs suggest comprehensive, high-quality ECE can support resilience among young children and their families.

Early Head Start-Child Care Partnerships HS and EHS are contemporary examples of comprehensive two-generation programs for low-income families with young children. In addition, the federal government funded 250 Early Head Start-Child Care Partnerships (EHS-CCP) beginning in 2015 to connect EHS programs with community-based child care programs (center- and home-based) with the aim of combining the advantages of both models—EHS’s comprehensive, high-quality, two-generation approach and child care’s flexibility and responsiveness to families’ social, cultural, and work-related needs (Del Grosso et al., 2019). The EHS-CCPs also expand access to high-quality care for infants and toddlers by opening additional slots in communities and providing wrap-around care. EHS-CCP funds can be used for program materials and resources, professional development for child care partners to meet federal HS standards, and comprehensive services for children and families. Rigorous research on the model is limited, but current evidence suggests benefits including higher-quality child care, reductions in teacher turnover, and increased chances for programs to share knowledge, training, and resources, leading to more highly skilled staff (Del Grosso et al., 2014; Halle et al., 2019). EHS-CCPs have also encountered challenges, such as difficulty meeting federal HS performance standards and a lack of alignment across HS and child care policies (Banghart et al., 2019).

Multi-tiered and Multi-disciplinary Interventions Some programs designed to support resilience in early childhood use a multi-tiered or multi-disciplinary model. The former model offers different levels of service depending on the particular needs of a family, often covering the full promotion-prevention-intervention spectrum. The latter often takes the form of integrating one field of practice into another, such as incorporating behavioral health into primary care.

Triple P-Positive Parenting Program System Triple P-Positive Parenting Program System (Triple P; Sanders, 2008) uses five different levels of support to help parents form healthy relationships with their children (birth to age 12), manage their behavior, and prevent problems at home, school, and in the community. The first level uses a public health approach through media to increase community awareness of parenting resources and programs that target child behavior and development. Levels 2–5 offer increasingly intensive supports to parents through individual and group sessions, with lower levels for families struggling with minor to moderate challenges and the fifth level for families experiencing family conflict. Triple P has been rigorously evaluated in multiple studies and found to improve parenting practices, parental relationships, and children’s social, emotional, and behavioral skills (Sanders et al., 2014).

The Incredible Years The Incredible Years (IY; Webster-Stratton & Reid, 2010) is an example of a multi-pronged intervention with programs for parents, teachers, and children (birth to age eight). IY aims to promote children’s social, emotional, and

academic competence, improve parent-teacher-child relationships, as well as reduce and treat children's emotional and behavioral problems. In the longer term, IY seeks to prevent delinquency, violence, and drug abuse. A review of 39 trials of IY found positive effects such as reductions in children's disruptive behavior and increased prosocial behavior (Menting et al., 2013). Other researchers have observed less negative, more responsive parenting behaviors (Brotman et al., 2005).

Healthy Steps Another intervention approach with young children and their families involves collaboration across disciplines of practice, such as integrating behavioral health into primary care or incorporating mental health consultation into early childhood education and home visiting programs. For example, Healthy Steps partners a pediatric health-care provider with a child development specialist, who conducts home visits, links families to community services and resources, and spends additional time with the family after a medical appointment (Zuckerman et al., 2004). Rigorous evaluations of Healthy Steps have shown greater parental knowledge of infant development and appropriate discipline and increased compliance with scheduled immunizations and well-child visits (Minkovitz et al., 2003; Piotrowski et al., 2009).

Infant and Early Childhood Mental Health Consultation Infant and early childhood mental health consultation (IECMHC) also combines fields of practice to support young children and their families. Specifically, mental health professionals are paired with early childhood programs—most commonly ECE and home visiting programs—in order to build the capacity of families, staff, and programs to strengthen young children's social and emotional development and to prevent or reduce child emotional and behavioral problems. Mental health consultants use classroom observation, case and group consultation, training, and linkages to community services. Studies on IECMHC show improvements in children's social and emotional skills and classroom quality and reductions in challenging behaviors, suspensions and expulsions, provider stress, burnout, and turnover (Brennan et al., 2008; Gilliam et al., 2016; Perry et al., 2009).

Suggestions for Nurturing Resilience in Early Childhood

There are many interventions aimed at families and children that are promotive of positive development and supportive of resilience in the presence of adversity. Interventions that address the early stages of development, beginning prenatally and continuing to kindergarten entry, can reap immediate and long-term benefits for children, families, and society (Campbell et al., 2014; Heckman & Karapakula, 2019). Such programs have successfully targeted a wide range of child and family outcomes (National Center for Parent, Family, and Community Engagement, 2015). However, after reviewing the research to date, the National Academies of Sciences, Engineering, and Medicine (2016) identified several program elements that have been effective across intervention types:

...viewing parents as equal partners in determining the types of services that would most benefit them and their children; tailoring interventions to meet the specific needs of families; integrating and collaborating in services for families with multiple service needs; creating opportunities for parents to receive support from peers to encourage engagement, reduce stigma, and increase the sense of connection to other parents with similar circumstances; addressing trauma, which affects a high percentage of individuals in some communities and can interfere with parenting and healthy child development; making programs culturally relevant to improve their effectiveness and participation across diverse families; and enhancing efforts to involve fathers, who are underrepresented in parenting research. (p. 8)

Research also suggests that certain protective factors increase the odds of children exhibiting positive adaptation to adversity. For example, personal attributes that promote adaptive behavior and resilience in the face of adversity include a high sense of self-efficacy, mastery motivation, and executive function and self-regulation skills (Masten, 2013). Family-level influences include emotionally responsive caregiving, family relationships and social networks, family organization and daily routines, response to conflict, and problem-solving practices (Gorman-Smith et al., 2005). Community-level influences include exposure to violence in the neighborhood, economic and social resources, peer influences, and supportive relationships with adults (Maton, 2005). Cultural influences associated with resilience include values and beliefs that inform the inter-connectedness of families and individuals, how teachers and caregivers interact with young children, socialization practices and behavior, the expression of emotions, and meaning-making (Panter-Brick, 2015; Theron & Phasha, 2015). Thus, resilience can originate from a wide range of individual and ecological protective processes.

A focus on protective factors that support resilience among young children and their families can be integrated into a multitude of environments and systems in which they are naturally embedded, such as the family, early childhood education, community, systems of care, and social policy. Given that no single intervention is likely to meet a child's every need, integrating protective factors across the many contexts in which young children live and grow is likely to be most effective for promoting resilience in early childhood. However, efforts that target federal or state social policies may be especially promising since they have the potential to benefit the most families. Recent proposals include policies such as paid family leave, a federal child care guarantee, universal ECE starting at age 3, expanding the HS/EHS program to more young children, and enhancing services provided by HS/EHS to better meet the needs of families living in areas of concentrated poverty (Chaudry et al., 2021). Other policies, such as those that help to make child care more affordable for low-income families through the Child Care Development Block Grant (CCDBG) or Temporary Aid for Needy Families (TANF), can also increase access to high-quality ECE for families facing economic adversity (Zaslow et al., 2013).

The Earned Income Tax Credit (EITC) is an additional example of a federal program and policy that supports families facing adversity. Quasi-experimental studies show that EITC payments, which supplement the incomes of low- and moderate-income workers, reduce maternal stress (Evans & Garthwaite, 2014), improve maternal health-related outcomes and behaviors (Markowitz et al., 2017), and lead

to better child academic and health outcomes (Dahl & Lochner, 2012; Hoynes et al., 2015). Quasi-experimental studies on the Nutrition Program for Women, Infants, and Children (WIC) also have shown beneficial effects for mothers and their children, including improved child cognitive development (Guan et al., 2021) and birth-weight, as well as reduced maternal preeclampsia and longer gestational age (Hamad et al., 2019). These and other federal programs, including the Supplemental Nutrition Assistance Program (SNAP), can improve a wide range of social determinants of health, not only by addressing poverty-related challenges (e.g., housing, neighborhood safety, access to healthy food) but also by reducing the emotional and physical toll of cumulative poverty-associated stressors (Braveman & Gottlieb, 2014).

Ideas for Growth in the Field

There are a number of limitations to early childhood interventions and their evidence base. For example, prior research on interventions designed to support resilience in young children has often focused on a single individual—either the mother or the child—or the parent-child dyad, without taking into account the larger ecological contexts in which these individuals are situated. These lines of research and evaluation still see resilience as an individualistic characteristic rather than a function of a broader system of policies and practices that affect human development at the community, state, and national levels (Ungar et al., 2013).

Another critical limitation of the evidence on resilience-based intervention is the lack of culturally relevant interventions and interventions that have been systematically and rigorously tested across different populations. Resilience research should expand to include investigations of supports for Native American and Alaskan Native children, children of immigrants, dual language learners, children with disabilities and special needs, and Latino/Hispanic children and families, among others. This warrants immediate attention from practitioners, researchers, and policymakers to meet the needs of an increasingly diverse population of families in the United States. Practitioners with lived experiences and cultural and linguistic backgrounds that align with those whom they are serving may have success in building rapport with and engagement of families that need support (Markowitz et al., 2020). New research also should consider the role of systemic racism in family's lives and on intervention effectiveness, with the understanding that racism is not reduceable to a single stressor (Harrell, 2000).

An additional challenge in the field is the dearth of rigorous evaluation of public programs that have integrated resilience theory into services. For example, some state and local governments have integrated programs designed to support attachment into their child welfare, foster, adoptive, and kinship care programs (Zeanah et al., 2001). These programs help caregivers understand a child's social and emotional needs in the context of trauma, re-interpret a child's challenging behavior in the context of those needs, and provide consistent nurturing and sensitive caregiving to help satisfy those needs. Similarly, parental leave policies, greater availability of

affordable high-quality care, Part C of the federally funded Individuals with Disabilities Education Act (IDEA; Early Intervention), and access to public services that improve family living conditions, reduce exposure to stress, and support caregiver and child mental and physical health, all have the potential to promote resilience early in life, yet little is known about how such policies affect resilience in early childhood.

Another direction for future work involves a focus on evaluating early childhood systems of care (Trochim et al., 2012). A hallmark of systems evaluation is engaging stakeholders from multiple perspectives in the design of an evaluation and the interpretation of results, which could be especially beneficial when trying to address the needs of families facing adversity. Trauma-informed care (TIC) is an example of a promising systemic approach to promoting resilience among young children and their families that has not been systematically evaluated. The Substance Abuse and Mental Health Services Administration (2014) defines TIC as:

A program, organization, or system that ... **realizes** the widespread impact of trauma and understands potential paths for recovery; **recognizes** the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and **responds** by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively *resist re-traumatization*. (p. 9)

TIC typically includes a combination of professional development to increase service providers' understanding of trauma and its impacts, skill-building for working with traumatized children and families, and service improvements, such as developing systems for safely conducting trauma screening, assessment, and referral to evidence-based treatments. TIC has been implemented in a variety of community mental health, child welfare, ECE, and other programs that serve young children and their families, as well as through community-wide, cross-sector initiatives (e.g., Bartlett et al., 2018), but there is little consensus on how to define TIC at the systems level and the evidence remains limited (Melz et al., 2019). Further investigation is needed to identify the essential elements of a TIC approach in early childhood that lead to long-term positive outcomes.

Assessing the impacts of systemic intervention approaches also can help elucidate the “value-added” of multi-pronged interventions. For example, a recent trial of Smart Beginnings—a pediatric care integration of two evidence-based interventions, Video Interaction Project and Family Check-up—found significant positive effects for young children (birth to 3 years) and their parents, including better parent-child interactions and child language, reading, and cognitive development compared to children who were not in Smart Beginnings (Roby et al., 2021).

In addition, the study of interventions in real-world situations by incorporating implementation science principles into resilience research and evaluation efforts holds promise for advancing the field. Implementation science emphasizes documenting and accounting for intervention contexts and the organizational infrastructure and leadership needed to support faithful enactment of interventions in real-world contexts. It also explores the circumstances and families for whom specific interventions are most effective (Halle, 2020; Hsueh et al., 2020).

Longitudinal studies also are needed that follow children across the life course, increase knowledge about bidirectional interactions of genetics and environment, and raise awareness of culture, diversity, and structural inequality to better understand varying trajectories in the face of similar types of adversity. Further research is also needed to elucidate potential moderators of the effects of promotion, prevention, and intervention programs. Finally, it will be important to examine the extent to which intervention efficacy is influenced by societal and policy contexts.

Conclusion

Understanding among practitioners, policymakers, and researchers about the characteristics and conditions that support resilience in early childhood has increased dramatically in recent years. Recent advances in the neuroscience of resilience, in particular, have helped demonstrate the effects of trauma and adversity on early brain development, as well as intervention strategies that support resilience and recovery (Hunter et al., 2018; McEwen, 2016). However, there is still much work to be done. The changing nature of families in the United States and the increasing diversity of family makeup require a more nimble, inclusive response that can address the needs of *all* families. Universal programs that are most widely used and do not carry the stigma of trauma or mental health interventions—such as ECE—have particular promise for reaching the largest proportion of children early enough to prevent or mitigate the negative effects of adversity and to promote young children’s resilience and well-being. However, such programs must be of high quality, trauma-informed, and well-coordinated with other community services to address successfully and fully each family’s unique needs.

References

- Ainsworth, M. D., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Erlbaum.
- Banghart, P., Cook, M., Bamdad, T., Carlson, J., & Lloyd, C. M. (2019). *Early head start- child care partnerships: Annotated bibliography*. : Child Trends. Retrieved February 15, 2021 from <https://www.childtrends.org/publications/early-head-start-child-care-partnerships-annotated-bibliography>
- Barnett, W. S. (1998). Long-term cognitive and academic effects of early childhood education on children in poverty. *Preventive Medicine*, 27(2), 204–207. <https://doi.org/10.1006/pmed.1998.0275>
- Bartlett, J. D., Griffin, J. L., Spinazzola, J., Fraser, J. G., Noroña, C. R., Bodian, R., Todd, M., Montagna, C., & Barto, B. (2018). The impact of a statewide trauma-informed care initiative in child welfare on the well-being of children and youth with complex trauma. *Children & Youth Services Review*, 84, 110–117. <https://doi.org/10.1016/j.childyouth.2017.11.015>
- Bauer, L. & Schanzenbach, D.W. (2016). *The long-term impact of the Head Start program*. The Hamilton Project and Brookings.

- Bernard, K., Dozier, M., Bick, J., Lewis-Morrarty, E., Lindhiem, O., & Carlson, E. (2012). Enhancing attachment organization among maltreated children: Results of a randomized clinical trial. *Child Development, 83*(2), 623–636. <https://doi.org/10.1111/j.1467-8624.2011.01712.x>
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. Basic Books.
- Bowlby, J. (1982). *Attachment and loss. Vol. 1: Attachment* (2nd ed.). Basic Books.
- Boyce, W. T. (2016). Differential susceptibility of the developing brain to contextual adversity and stress. *Neuropsychopharmacology, 41*(1), 142–162. <https://doi.org/10.1038/npp.2015.294>
- Braveman, P., & Gottlieb, L. (2014). The social determinants of health: It's time to consider the causes of the causes. *Public Health Reports, 129*, 19–31. <https://doi.org/10.1177/00333549141291S206>
- Brennan, E., Bradley, J., Allen, M. D., & Perry, D. F. (2008). The evidence base for mental health consultation in early childhood settings: Research synthesis addressing staff and program outcomes. *Early Education & Development, 19*(6), 982–1022. <https://doi.org/10.1080/10409280801975834>
- Bretherton, I. (1990). Communication patterns, internal working models, and the intergenerational transmission of attachment relationships. *Infant Mental Health Journal, 11*(3), 237–252. [https://doi.org/10.1002/1097-0355\(199023\)11:3%3C237::AID-IMHJ2280110306%3E3.0.CO;2-X](https://doi.org/10.1002/1097-0355(199023)11:3%3C237::AID-IMHJ2280110306%3E3.0.CO;2-X)
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 793–828). Wiley.
- Brotman, L. M., Gouley, K. K., Chesir-Teran, D., Dennis, T., Klein, R. G., & Shrout, P. (2005). Prevention for preschoolers at high risk for conduct problems: Immediate outcomes on parenting practices and child social competence. *Journal of Clinical Child & Adolescent Psychology, 34*(4), 724–734. https://doi.org/10.1207/s15374424jccp3404_14g
- Brown, D., Rodgers, Y. H., & Kapadia, K. (2008). Multicultural considerations for the application of attachment theory. *American Journal of Psychotherapy, 62*(4), 353–363. <https://doi.org/10.1176/appi.psychotherapy.2008.62.4.353>
- Burchinal, M., Kainz, K., & Cai, Y. (2011). How well do our measures of quality predict child outcomes? A meta-analysis and coordinated analysis of data from large-scale studies of early childhood settings. In M. Zaslow, I. Martinez-Beck, K. Tout, & T. Halle (Eds.), *Quality measurement in early childhood settings* (pp. 11–31). Paul H. Brookes Publishing.
- Burchinal, M., Zaslow, M., & Tarullo, L. (2016). Quality thresholds, features and dosage in early care and education: Secondary data analyses of child outcomes. *Monographs of the Society for Research in Child Development, 81*(2), 1–128. <https://doi.org/10.1111/mono.12236>
- Cameron, J. L., Eagleson, K. L., Fox, N. A., Hensch, T. K., & Levitt, P. (2017). Social origins of developmental risk for mental and physical illness. *Journal of Neuroscience, 37*(45), 10783–10791. <https://doi.org/10.1523/JNEUROSCI.1822-17.2017>
- Campbell, F. A., Helms, R., Sparling, J., & Ramey, C. T. (1998). Early-childhood programs and success in school: The Abecedarian Study. In W. S. Barnett & S. S. Booncock (Eds.), *Early care and education for children in poverty: Promises, programs, and long-term results* (pp. 145–166). State University of New York Press.
- Campbell, F. A., Pungello, E. P., Burchinal, M., Kainz, K., Pan, Y., Wasik, B. H., Barbarin, O. A., Sparling, J. J., & Ramey, C. T. (2012). Adult outcomes as a function of an early childhood educational program: An Abecedarian Project follow-up. *Developmental Psychology, 48*(4), 1033–1043. <https://doi.apa.org/doi/10.1037/a0026644>
- Campbell, F., Conti, G., Heckman, J. J., Moon, S. H., Pinto, R., Pungello, E., & Pan, Y. (2014). Early childhood investments substantially boost adult health. *Science, 343*(6178), 1478–1485. <https://doi.org/10.1126/science.1248429.org/>
- Chaffin, M., Silovsky, J. F., Funderburk, B., Valle, L. A., Brestan, E. V., Balachova, T., Jackson, S., Lensgraf, J., & Bonner, B. L. (2004). Parent-child interaction therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology, 72*(3), 500–510. <https://doi.org/10.1037/0022-006X.72.3.500>
- Chaudry, A., Morrissey, T., Weiland, C., & Yoshikawa, H. (2021). *Cradle to kindergarten: A new plan to combat inequality* (2nd ed.). Russell Sage Foundation.

- Cicchetti, D., & Rogosch, F. A. (1996). Equifinality and multifinality in developmental psychopathology. *Development and Psychopathology*, 8(4), 597–600. <https://psycnet.apa.org/doi/10.1017/S0954579400007318>
- Cicchetti, D., & Rogosch, F. A. (2009). Adaptive coping under conditions of extreme stress: Multilevel influences on the determinants of resilience in maltreated children. *New Directions for Child & Adolescent Development*, 124, 47–59. <https://doi.org/10.1002/cd.242>
- Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2006). Fostering secure attachment in infants in maltreating families through preventive interventions. *Development and Psychopathology*, 18(3), 623–649. <https://doi.org/10.1017/s0954579406060329>
- Crittenden, P. M. (1990). Internal representational models of attachment relationships. *Infant Mental Health Journal*, 11(3), 259–277. [https://doi.org/10.1002/1097-0355\(199023\)11:3%3C259::AID-IMHJ2280110308%3E3.0.CO;2-J](https://doi.org/10.1002/1097-0355(199023)11:3%3C259::AID-IMHJ2280110308%3E3.0.CO;2-J)
- Dahl, G. B., & Lochner, L. (2012). The impact of family income on child achievement: Evidence from the earned income tax credit. *American Economic Review*, 102(5), 1927–1956. <https://doi.org/10.1257/aer.102.5.1927>
- Darling Rasmussen, P., Storebø, O. J., Løkkeholt, T., Voss, L. G., Shmueli-Goetz, Y., Bojesen, A. B., Simonsen, E., & Bilenberg, N. (2019). Attachment as a core feature of resilience: A systematic review and meta-analysis. *Psychological Reports*, 122(4), 1259–1296. <https://doi.org/10.1177/0033294118785577>
- Del Grosso, P., Akers, L., Esposito, A. M., & Paulsell, D. (2014). *Early care and education partnerships: A review of the literature (OPRE Report #2014–64)*. Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Del Grosso, P., Thomas, J., Makowsky, L., Levere, M., Fung, N., & Paulsell, D. (2019, February). *Working together for children and families: Findings from the national descriptive study of Early Head Start-Child Care Partnerships*. Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Deming, D. (2009). Early childhood intervention and life-cycle skill development: Evidence from head start. *American Economic Journal: Applied Economics*, 1(3), 111–134. <https://doi.org/10.1257/app.1.3.111>
- Dombrowski, S., Timmer, S., Blacker, D., & Urquiza, A. (2005). A positive behavioural intervention for toddlers: Parent-child attunement therapy. *Child Abuse Review*, 14(2), 132–151. <https://doi.org/10.1002/car.888>
- Dozier, M., Manni, M., Gordon, M. K., Peloso, E., Gunnar, M. R., Stovall-McClough, K. C., Eldreth, D. & Levine, S. (2006). Foster children’s diurnal production of cortisol: An exploratory study. *Child Maltreatment*, 11(2), 189–197. <https://doi.org/10.1177%2F1077559505285779>
- Dozier, M., Peloso, E., Lewis, E., Laurenceau, J. P., & Levine, S. (2008). Effects of an attachment-based intervention on the cortisol production of infants and toddlers in foster care. *Development and Psychopathology*, 20(3), 845–859. <https://doi.org/10.1017/S0954579408000400>
- Dozier, M., Lindhiem, O., Lewis, E., Bick, J., Bernard, K., & Peloso, E. (2009). Effects of a foster parent training program on young children’s attachment behaviors: Preliminary evidence from a randomized clinical trial. *Child Adolescent Social Work*, 26, 321–332. <https://dx.doi.org/10.1007%2Fs10560-009-0165-1>
- Evans, W. N., & Garthwaite, C. L. (2014). Giving mom a break: The impact of higher EITC payments on maternal health. *American Economic Journal: Economic Policy*, 6(2), 258–290. <https://doi.org/10.3386/w16296>
- Eyberg, S., Funderburk, B., Hembree-Kigin, T., McNeil, C., Querido, J., & Hood, K. (2001). Parent-child interaction therapy with behavior problem children: One- and two-year maintenance of treatment effects in the family. *Child & Family Behavior Therapy*, 23, 1–20. https://doi.org/10.1300/J019v23n04_01
- Feder, A., Fred-Torres, S., Southwick, S. M., & Charney, D. S. (2019). The biology of human resilience: Opportunities for enhancing resilience across the life span. *Biological Psychiatry*, 86(6), 443–453. <https://doi.org/10.1016/j.biopsych.2019.07.012>

- Feller, A., Grindal, T., Miratrix, L., & Page, L. C. (2016). Compared to what? Variation in the impacts of early childhood education by alternative care type. *The Annals of Applied Statistics*, 10(3), 1245–1285. <https://doi.org/10.2139/ssrn.2534811>
- Garces, E., Thomas, D., & Currie, J. (2002). Longer-term effects of head start. *American Economic Review*, 92, 999–1012. <https://doi.org/10.1257/00028280260344560>
- García Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & García, H. F. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67(5), 1891–1914. <https://doi.org/10.2307/1131600>
- García, J. L., Heckman, J. J., Leaf, D. E., & Prados, M. J. (2017). *Quantifying the life-cycle benefits of a prototypical early childhood program*. Working paper 23479. National Bureau of Economic Research.
- Garnezy, N. (1974). The study of competence in children at risk for severe psychopathology. In E. J. Anthony & C. Koupernik (Eds.), *The child in his family: Vol. 3. Children at psychiatric risk* (pp. 77–97). Wiley.
- Gilliam, W., Maupin, A. N., & Reyes, C. R. (2016). Early childhood mental health consultation: Results of a statewide random-controlled evaluation. *Journal of the Academy of Child & Adolescent Psychiatry*, 55(9), 754–761. <https://doi.org/10.1016/j.jaac.2016.06.006>
- Glaser, D. (2000). Child abuse and neglect and the brain: A review. *Journal of Child Psychology & Psychiatry*, 41(1), 97–116. <https://psycnet.apa.org/doi/10.1111/1469-7610.00551>
- Gomby, D. S., Culross, P. L., & Behrman, R. E. (1999). Home visiting: Recent program evaluations: Analysis and recommendations. *The Future of Children*, 9(1), 4–26. <https://doi.org/10.2307/1602719>
- Gorman-Smith, D., Tolan, P., & Henry, D. (2005). Promoting resilience in the inner city. In R. D. Peters, B. Leadbeater, & R. J. McMahon (Eds.), *Resilience in children, families, and communities* (pp. 137–155). Springer.
- Green, B. L., Ayoub, C., Bartlett, J. D., Furrer, C., Chazan-Cohen, R., Buttitta, K., Von Ende, A., Koepf, A., & Regalbutto, E. (2020). Pathways to prevention: Early head start outcomes in the first three years lead to long-term reductions in child maltreatment. *Children & Youth Services Review*, 118, 105403. <https://doi.org/10.1016/j.childyouth.2020.105403>
- Grossmann, K. E., Grossmann, K., & Waters, E. (2005). *Attachment from infancy to adulthood: The major longitudinal studies*. Guilford Press.
- Guan, A., Hamad, R., Batra, A., Bush, N. R., Tylavsky, F. A., & LeWinn, K. Z. (2021). The revised WIC food package and child development: A quasi-experimental study. *Pediatrics*, 147(2), e20201853. <https://doi.org/10.1542/peds.2020-1853>
- Gunnar, M. R., Fisher, P. A., & the Early Experience Stress and Prevention Science Network. (2006). Bringing basic research on early experience and stress neurobiology to bear on preventive interventions for neglected and maltreated children. *Development and Psychopathology*, 18(3), 651–677. <https://doi.org/10.1017/S0954579406060330>
- Halle, T. G. (2020). How implementation science and improvement science can work together to improve early care and education. In J. Jones & S. Vecchiotti (Eds.), *Getting it right: Using implementation research to improve outcomes in early care and education*. Foundation for Child Development.
- Halle, T., Banghart, P., Zaslow, M., Cook, M., Kane, M., Bartlett, J. D., Redd, Z., Bamdad, T., Cox, A., & Lloyd, C. M. (2019). Implementation lessons from six early head start-child care partnerships. *Early Education & Development*, 30(8), 990–1008. <https://doi.org/10.1080/10409289.2019.1656320>
- Hamad, R., Collin, D. F., Baer, R. J., & Jelliffe-Pawlowski, L. L. (2019). Association of revised WIC food package with perinatal and birth outcomes: A quasixperimental study. *JAMA Pediatrics*, 173(9), 845–852. <https://doi.org/10.1001/jamapediatrics.2019.1706>
- Harding, K., Galano, J., Martin, J., Huntington, L., & Schellenbach, C. J. (2007). Healthy families America effectiveness: A comprehensive review of outcomes. *Journal of Prevention & Intervention in the Community*, 34(12), 149–179. https://doi.org/10.1300/J005v34n01_08
- Harrell, S. P. (2000). A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *American Journal of Orthopsychiatry*, 70(1), 42–57. <https://psycnet.apa.org/doi/10.1037/h0087722>

- Heckman, J. J., & Karapakula, G. (2019). *The Perry Preschoolers at late midlife: A study in design-specific inference*. National Bureau of Economic Research Working Paper No. 25888. Retrieved February 21, 2021 from https://www.nber.org/system/files/working_papers/w25888/w25888.pdf
- Heckman, J. J., Moon, S. H., Pinto, R., Savelyev, P. A., & Yavitz, A. (2010). The rate of return to the high/scope Perry preschool program. *Journal of Public Economics*, 94(1–2), 114–128. <https://doi.org/10.1016/j.jpubeco.2009.11.001>
- Hembree-Kigin, T., & McNeil, C. (1995). *Parent-child interaction therapy*. Plenum.
- Hemmeter, M. L., Snyder, P. A., Fox, L., & Algina, J. (2016). Evaluating the implementation of the pyramid model for promoting social emotional competence in early childhood classrooms. *Topics in Early Childhood Special Education*, 36, 133–146. <https://psycnet.apa.org/doi/10.1177/0271121416653386>
- Howard, K. S., & Brooks-Gunn, J. (2009). The role of home-visiting programs in preventing child abuse and neglect. *The Future of Children*, 19(2), 119–146. <https://doi.org/10.1353/foc.0.0032>
- Hoynes, H., Miller, D., & Simon, D. (2015). Income, the earned income tax credit, and infant health. *American Economic Journal: Economic Policy*, 7(1), 172–211. <https://doi.org/10.1257/pol.20120179>
- Hsueh, J., Halle, T., & Maier, M. (2020). An overview of implementation research and frameworks in early care and education research. In J. Jones & S. Vecchiotti (Eds.), *Getting it right: Using implementation research to improve outcomes in early care and education*. Foundation for Child Development.
- Hunter, R. G., Gray, J. D., & McEwen, B. S. (2018). The neuroscience of resilience. *Social Work & Neuroscience*, 9(2), 305–339. <https://doi.org/10.1086/697956>
- Kalisch, R., Cramer, A. O., Binder, H., Fritz, J., Leertouwer, I., Lunansky, G., Meyer, B., Timmer, J., Veer, I. M., & Van Harmelen, A. L. (2019). Deconstructing and reconstructing resilience: A dynamic network approach. *Perspectives on Psychological Science*, 14(5), 765. <https://doi.org/10.1177/1745691619855637>
- Keenan, E. K. (2010). Seeing the forest and the trees: Using dynamic systems theory to understand “stress and coping” and “trauma and resilience”. *Journal of Human Behavior in the Social Environment*, 20, 1038–1060. <https://doi.org/10.1080/10911359.2010.494947>
- Kitzman, H., Olds, D. L., Knudtson, M. D., Cole, R., Anson, E., Smith, J. A., Fishbein, D., DiClemente, R., Wingood, G., Caliendo, A. M., Hopfer, C., Miller, T., & Conti, G. (2019). Prenatal/infancy nurse home visiting and 18-year outcomes of a randomized trial. *Pediatrics*, 144(6), e20183876. <https://doi.org/10.1542/peds.2018-3876>
- Kline, P., & Walters, C. (2016). *Evaluating public programs with close substitutes: The case of Head Start*. National Bureau of Economic Research working paper no. 21658. National Bureau of Economic Research.
- Kraemer, G. (1992). A psychobiological theory of attachment. *Behavioral & Brain Sciences*, 15(3), 493–541. <https://doi.org/10.1017/s0140525x00069752>
- Lieberman, A. F., & Van Horn, P. (2011). *Psychotherapy with infants and young children: Repairing the effects of stress and trauma on early attachment*. Guilford Press.
- Lieberman, A. F., Van Horn, P., & Ghosh Ippen, C. (2005). Toward evidence-based treatment: Child-parent psychotherapy with preschoolers exposed to marital violence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 44(12), 1241–1248. <https://doi.org/10.1097/01.chi.0000181047.59702.58>
- Love, J. M., Kisker, E. E., Ross, C., Raikes, H., Constantine, J., Boller, K., Brooks-Gunn, J., Chazan-Cohen, R., Tarullo, L. B., Brady-Smith, C., Fuligni, A. S., Schochet, P. Z., Paulsell, D., & Vogel, C. (2005). The effectiveness of early head start for 3-year-old children and their parents: Lesson for policy and programs. *Developmental Psychology*, 41(6), 885–901. <https://doi.org/10.1037/0012-1649.41.6.88>
- Ludwig, J., & Miller, D. L. (2007). Does head start improve children’s life chances? Evidence from a regression-discontinuity design. *Quarterly Journal of Economics*, 122, 159–208.

- Ludwig, J., & Phillips, D. A. (2008). Long-term effects of head start on low-income children. *Annals of the New York Academy of Sciences*, *1136*, 257–268. <https://doi.org/10.3386/w11702>
- Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades. In D. Cicchetti & D. Cohen (Eds.), *Developmental Psychopathology* (Vol. 3, pp. 739–795). Wiley.
- Luthar, S., & Cicchetti, D. (2000). The construct of resilience: Implications for interventions and social policies. *Development and Psychopathology*, *12*, 857–885. <https://doi.org/10.1017/s0954579400004156>
- Luthar, S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guide- gap for children as their parents enter substance abuse lines for future work. *Child Development*, *71*, 543–562. <https://doi.org/10.1111/1467-8624.00164>
- Markowitz, S., Komro, K. A., Livingston, M. D., Lenhart, O., & Wagenaar, A. C. (2017). Effects of state-level earned income tax credit laws in the US on maternal health behaviors and infant health outcomes. *Social Science & Medicine*, *194*, 67–75. <https://doi.org/10.1016/j.socscimed.2017.10.016>
- Markowitz, A. J., Bassok, D., & Grissom, J. A. (2020). Teacher-child racial/ethnic match and parental engagement with head start. *American Educational Research Journal*, *57*(5), 2132–2174. <https://doi.org/10.3102%2F0002831219899356>
- Masten, A. S. (2001). Ordinary magic. Resilience processes in development. *American Psychologist*, *56*(3), 227–238. <https://doi.org/10.1037/0003-066X.56.3.227>
- Masten, A. (2007). Resilience in developing systems: Progress and promise as the fourth wave rises. *Development and Psychopathology*, *19*(3), 921–930. <https://doi.org/10.1017/S0954579407000442>
- Masten, A. S. (2013). Risk and resilience in development. In P. D. Zelazo (Ed.), *Oxford library of psychology. The Oxford handbook of developmental psychology, Vol. 2. Self and other* (pp. 579–607). Oxford University Press.
- Masten, A. S. (2021). Resilience of children in disasters: A multisystem perspective. *International Journal of Psychology*, *56*(1), 1–11. <https://doi.org/10.1002/ijop.12737>
- Masten, A. S., & Powell, J. L. (2003). A resilience framework for research, policy and practice. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 1–26). Cambridge University Press.
- Masten, A. S., Best, K., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, *2*, 425–444. <https://doi.org/10.1017/S0954579400005812>
- Maton. (2005). The social transformation of environments and the promotion of resilience in children. In R. D. Peters, B. Leadbeater, & R. J. McMahon (Eds.), *Resilience in children, families, and communities* (pp. 119–135). Springer.
- McCoy, D. C., Yoshikawa, H., Ziol-Guest, K. M., Duncan, G. J., Schindler, H. S., Magnuson, K., Yang, R., Koepf, A., & Shonkoff, J. P. (2017). Impacts of early childhood education on medium- and long-term educational outcomes. *Education Research*, *46*(8), 474–487. <https://psycnet.apa.org/doi/10.3102/0013189X17737739>
- McEwen, B. S. (2001). From molecules to mind. *Annals of the New York Academy of Sciences*, *935*, 42–49. <https://doi.org/10.1111/j.1749-6632.2001.tb03469.x>
- McEwen, B. S. (2016). In pursuit of resilience: Stress, epigenetics, and brain plasticity. *Annals of the New York Academy of Sciences*, *1373*(1), 56–64. <https://doi.org/10.1111/nyas.13020>
- Melz, H., Morrison, C., Ingolsby, E., Cairon, K., & Mackrain, M. (2019, June). *Summary: Review of trauma-informed initiatives at the systems level. Trauma-informed approaches: Connecting research, policy, and practice to build resilience in children and families*. Office of the Assistant Secretary for Planning and Evaluation, James Bell Associates, & Education Development Center.
- Menting, A. T. A., de Castro, B. O., & Matthys, W. (2013). Effectiveness of the incredible years parent training to modify disruptive and prosocial child behavior: A meta-analytic review. *Clinical Psychology Review*, *33*(8), 901–913. <https://doi.org/10.1016/j.cpr.2013.07.006>
- Minkovitz, C. S., Hughart, N., Strobino, D., Scharfstein, D., Grason, H., Hou, W., Miller, T., Bishai, D., Augustyn, M., McLearn, K. T., & Guyer, B. (2003). A practice-based intervention to enhance quality of care in the first 3 years of life: The healthy steps for young chil-

- dren program. *Journal of the American Medical Association*, 290(23), 3081–3091. <https://doi.org/10.1001/jama.290.23.3081>
- National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting matters: Supporting parents of children ages 0–8*. The National Academies Press.
- National Center for Parent, Family and Community Engagement. (2015). *Compendium of parenting interventions*. National Center on Parent, Family, and Community Engagement, Office of Head Start, U.S. Department of Health & Human Services.
- National Scientific Council on the Developing Child. (2010). *Early experiences can alter gene expression and affect long-term development: Working paper no. 10*. Retrieved February 25, 2021 from <https://developingchild.harvard.edu/resources/early-experiences-can-alter-gene-expression-and-affect-long-term-development/>
- National Scientific Council on the Developing Child. (2015). *Supportive relationships and active skill-building strengthen the foundations of resilience: Working paper 13*. Retrieved February 15, 2021 from <https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2015/05/The-Science-of-Resilience2.pdf>.
- Olds, D. L. (1998). Long-term effects of nurse home visitation on children's criminal and anti-social behavior: 15-year follow-up of a randomized trial. *Journal of the American Medical Association*, 280, 1238–1244. <https://doi.org/10.1001/jama.280.14.1238>
- Olds, D. L. (2006). The nurse-family partnership: An evidence-based preventive intervention. *Infant Mental Health Journal*, 27(1), 5–25. <https://doi.org/10.1002/imhj.20077>
- Olds, D. L., Eckenrode, J., & Henderson, C. R. (1997). Long-term effects of home visitation on maternal life course and child abuse and neglect: 15-year follow-up of a randomized trial. *Journal of the American Medical Association*, 278, 637–643. <https://doi.org/10.1001/jama.1997.03550080047038>
- Panter-Brick, C. (2015). Culture and resilience: Next steps for theory and practice. In L. C. Theron, L. Liebenberg, & M. Ungar (Eds.), *Youth resilience and culture: Commonalities and complexities* (pp. 233–244). Springer.
- Perry, D. F., Allen, M. D., Brennan, E. M., & Bradley, J. R. (2009). The evidence base for mental health consultation in early childhood settings: A research synthesis addressing children's behavioral outcomes. *Early Education & Development*, 21(6), 795–824. <https://doi.org/10.1080/10409280903475444>
- Piotrowski, C. C., Talavera, G. A., & Mayer, J. A. (2009). Healthy steps: A systematic review of a preventive practice-based model of pediatric care. *Journal of Developmental & Behavioral Pediatrics*, 30(1), 91–103. <https://doi.org/10.1097/DBP.0b013e3181976a95>
- Puma, M., Bell, S., Cook, R., Heid, C., & Lopez, M. (2005). *Head Start Impact Study: First year findings*. U.S. Administration for Children and Families, Office of Planning, Research and Evaluation.
- Puma, M., Bell, S., Cook, R., & Heid, C. (2010). *Head Start Impact Study final report*. [Executive summary] U.S. Administration for Children and Families, Office of Planning, Research and Evaluation.
- Puma, M., Bell, S., Cook, R., Heid, C., Broene, P., Jenkins, F., Mashburn, A. J., & Downer, J. T. (2012). *Third grade follow-up to the Head Start Impact Study: Final report [Executive summary]* (OPRE Report 2012-45b). U.S. Administration for Children and Families, Office of Planning, Research and Evaluation.
- Roby, E., Miller, E. B., Shaw, D. S., Morris, P., Gill, A., Bogen, D. L., Rosas, J., Canfield, C. F., Hails, K. A., Wippick, H., Honoroff, J., Cates, C. B., Weisleder, A., Chadwick, K. A., Raak, C. D., & Mendelsohn, A. L. (2021). Improving parent-child interactions in pediatric health care: A two-site randomized controlled trial. *Pediatrics*, 147(2), e20201799. <https://doi.org/10.1542/peds.2020-1799>
- Rothbaum, F., Weisz, J., Pott, M., Miyake, K., & Morelli, G. (2000). Attachment and culture: Security in the United States and Japan. *American Psychologist*, 55, 1093–1104. <https://doi.org/10.1037/0003-066X.55.10.1093>
- Saleebey, D. (2013). *The strengths perspective in social work practice* (6th ed.). Pearson.

- Sama-Miller, E., Akers, L. Mraz-Esposito, A., Zukiewicz, M., Avellar, S., Paulsell, D., & Del Grosso, P. (2018). *Home visiting evidence of effectiveness review: Executive summary* (OPRE Report 2018–113). Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Sameroff, A. J., & MacKenzie, M. J. (2003). A quarter-century of the transactional model: How have things changed? *Zero to Three*, 24(1), 14–22.
- Sanders, M. R. (2008). Triple P-Positive Parenting Program as a public health approach to strengthening parenting. *Journal of Family Psychology*, 22(4):506–517. <https://doi.org/10.1037/0893-3200.22.3.506>
- Sanders, M. R., Kirby, J. N., Tellegen, C. L., & Day, J. J. (2014). The triple P-positive parenting program: A systematic review and meta-analysis of a multi-level system of parenting support. *Clinical Psychology Review*, 34(4), 337–357. <https://doi.org/10.1016/j.cpr.2014.04.003>
- Schindler, H. S., Kholoptseva, J., Oh, S. S., Yoshikawa, H., Duncan, G. J., Magnuson, K. A., & Shonkoff, J. P. (2015). Maximizing the potential of early childhood education to prevent externalizing behavior problems: A meta-analysis. *Journal of School Psychology*, 53, 243–263. <https://doi.org/10.1016/j.jsp.2015.04.001>
- Schore, A. N. (2001). Effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, 22(1–2), 7–66.
- Schweinhart, L. J. (2004). *The high/scope Perry preschool study through age 40: Summary, conclusions, and frequently asked questions*. High/Scope Press.
- Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). Significant benefits: The high/scope Perry preschool study through age 27. In *Monographs of the high/scope educational research foundation*, 10. High/Scope Press.
- 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(4), 1635–1653. <https://doi.org/10.1017/S0954579413000813>
- Shonkoff, J. P., Boyce, W. T., & McEwen, B. S. (2009). Neuroscience, molecular biology, and the childhood roots of health disparities: Building a new framework for health promotion and disease prevention. *Journal of the American Medical Association*, 30(21), 2252–2259. <https://doi.org/10.1001/jama.2009.754>
- Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*. HHS Publication No. (SMA), 14–4884. Rockville, MD: Author.
- Supplee, L. (2016). *5 things to know about early childhood home visiting*. Bethesda, MD: Child Trends. Retrieved February 25, 2021 from <https://www.childtrends.org/publications/5-things-to-know-about-early-childhood-home-visiting>
- Thelen, E., & Smith, L. B. (2006). Dynamic systems theories. In W. Damon (Series Ed.) & R. M. Lerner (Vol. Ed.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (5th ed., pp. 258–312). Wiley.
- Theron, L. C., & Phasha, N. (2015). Cultural pathways to resilience: Opportunities and obstacles as recalled by black South African students. In L. C. Theron, L. Liebenberg, & M. Ungar (Eds.), *Youth resilience and culture: Commonalities and complexities* (pp. 51–65). Springer.
- Thomas, R., & Zimmer-Gembeck, M. J. (2011). Accumulating evidence for parent–child interaction therapy in the prevention of child maltreatment. *Child Development*, 82(1), 177–192. <https://doi.org/10.1111/j.1467-8624.2010.01548.x>
- Timmer, S. G., Urquiza, A. J., Zebell, N. M., & McGrath, J. M. (2005). Parent-child interaction therapy: Application to maltreating parent-child dyads. *Child Abuse & Neglect*, 29(7), 825–842. <https://doi.org/10.1016/j.chiabu.2005.01.003>
- Toth, S. L., Maughan, A., Manly, J. T., Spanola, M., & Cicchetti, D. (2002). The relative efficacy of two interventions in altering maltreated preschool children's representational models: Implications for attachment theory. *Development and Psychopathology*, 14(4), 877–908. <https://doi.org/10.1017/S095457940200411X>

- Trent, M., Dooley, D. G., & Dougé, J. (2019). The impact of racism on child and adolescent health. *Pediatrics, 144*(2), e20191765. <https://doi.org/10.1542/peds.2019-1765>
- Trochim, W., Urban, J. B., Hargraves, M., Hebbard, C., Buckley, J., Archibald, T., Johnson, M., & Burgermaster, M. (2012). The guide to the systems evaluation protocol. Cornell Digital Print Services.
- Ungar, M. (2004). The importance of parents and other caregivers to the resilience of high-risk adolescents. *Family Process, 43*, 23–41. <https://doi.org/10.1111/j.1545-5300.2004.04301004.x>
- 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 & Psychiatry, 54*(4), 348–366. <https://doi.org/10.1111/jcpp.12025>
- Walsh, F. (2006). *Strengthening family resilience* (2nd ed.). Guilford Press.
- Walsh, F. (2011). Family resilience: A collaborative approach in response to stressful life events. In S. M. Southwick, D. Charney, & M. J. Friedman (Eds.), *Resilience and mental health: Challenges across the lifespan* (pp. 149–161). Cambridge University.
- Webster-Stratton, C., & Reid, M. J. (2010). The incredible years parents, teachers, and children training series: A multifaceted treatment approach for young children with conduct disorders. In J. R. Weisz & A. E. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents* (2nd ed., pp. 194–210). Guilford Press.
- Webster-Stratton, C., & Taylor, T. (2001). Nipping early risk factors in the bud: Preventing substance abuse, delinquency, and violence in adolescence through interventions targeted at young children (0-8 years). *Prevention Science, 2*(3), 165–192. <https://doi.org/10.1023/A:1011510923900>
- Werner, E. E., & Smith, R. S. (1982/1992). *Overcoming the odds: High risk children from birth to adulthood*. Cornell University Press.
- Wright, M. O., Masten, A. S., & Narayan, A. J. (2005). Resilience processes in development. In S. Goldstein & R. B. Brooks (Eds.), *Handbook of resilience in children* (pp. 15–37). Springer.
- Yates, T. M., Egeland, B., & Sroufe, L. A. (2003). Rethinking resilience: A developmental process perspective. In S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 243–266). Cambridge University Press.
- Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M. R., Espinosa, L. M., Gormley, W. T., Ludwig, J., Magnuson, K. A., Phillips, D., & Zaslow, M. (2013). *Investing in our future: The evidence base on preschool education*. Society for Research in Child Development.
- Zaslow, M., Crosby, D. A., & Smith, N. (2013). Issues of quality and access emerging from the changing early childhood policy context: Toward the next generation of research. In E. T. Gershoff, R. S. Mistry, & D. A. Crosby (Eds.), *Societal contexts of child development: Pathways of influence and implications for practice and policy* (pp. 54–71). Oxford University Press.
- Zeanah, C. H., Larrieu, J. A., Heller, S. S., Valliere, J., Hinshaw-Fuselier, S., Aoki, Y., & Drilling, M. (2001). Evaluation of a preventive intervention for maltreated infants and toddlers in foster care. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(2), 214–221. <https://doi.org/10.1097/00004583-200102000-00016>
- Zuckerman, B., Parker, S., Kaplan-Sanoff, M., Augustyn, M., & Barth, M. C. (2004). Healthy steps: A case study of innovation in pediatric practice. *Pediatrics, 114*(3), 820–826. <https://doi.org/10.1542/peds.2003-0999-L>