
The Effects of Poverty on Children's Socioemotional Development: An Ecological Systems Analysis

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Bronfenbrenner's process-person-context-time model is used to examine theories that explain the adverse effects of economic deprivation on children's socioemotional development. In his model, each of five structures of the ecological environment—microsystems, mesosystems, exosystems, macrosystems, and chronosystems—is subsumed within the next higher level. Theories of the effects of poverty on proximal processes in the microsystem of the family have the most research support, but processes in other microsystems such as the peer group and school and in other levels of the ecological environment may also explain the relation between economic deprivation and children's socioemotional functioning. Social work practice and policy implications are drawn from the analysis.

Key words: behavior problems; ecological systems; poverty; socioemotional development

Despite a recent two-percentage-point decline in child poverty, approximately one in five children in the United States is poor (Lamison-White, 1997). Compared with children who live in families with more financial resources, poor children face a higher risk of developing a variety of socioemotional problems. These include depression (Dornfeld & Kruttschnitt, 1992), internalizing and externalizing symptoms (Duncan, Brooks-Gunn, & Klebanov, 1994), lower levels of sociability and initiative (Hanson, McLanahan, & Thomson, 1997), problematic peer relations, and disruptive classroom behaviors (Patterson, Kupersmidt, & Vaden, 1990).

This article uses Bronfenbrenner's (1995) process-person-context-time model to exam-

ine major theories of the processes by which economic deprivation results in children's socioemotional problems. The first section briefly discusses the assumptions of Bronfenbrenner's model. The second section uses his structures of the ecological environment as a framework for this analysis and draws social work practice and policy applications. The final section summarizes this review and the practice and policy implications.

Process-Person-Context-Time Model

Bronfenbrenner (1977) proposed an ecological systems model of the lifelong progressive accommodations individuals make to the changing environments in which they develop. He referred to the most recent conceptualization of

his model as a “bioecological paradigm” (Bronfenbrenner & Ceci, 1994), which rests on two main assumptions that can be investigated within a process–person–context–time model (Bronfenbrenner, 1995). First, human development occurs through “processes of progressively more complex reciprocal interactions” between active, evolving “biopsychological” human beings and the individuals, objects, and symbols in the environment (Bronfenbrenner, 1995, p. 620). If these interactions, or proximal processes, are to be effective, they must occur with regularity over extended periods of time. Proximal processes occur between a parent and child and within peer, school, learning, and recreational activities; they are the mechanisms by which genetic potential for effective psychological functioning is realized. Second, the effectiveness of proximal processes is determined by the biopsychological characteristics of the individual, the immediate and distant environments in which the proximal processes occur, and the developmental outcome being examined.

Bronfenbrenner (1994) conceptualized the ecological environment, or the context in which human development occurs, as a set of “nested structures.” Developmental outcomes are influenced by interactions within microsystems, or the immediate settings that contain the developing person. The remaining structures, in order of the distance of their influence on the developing individual, include mesosystems (processes among two or more microsystems; both contain the developing person), exosystems (processes between two or more settings; only one contains the developing person), macrosystems (influences of the broader cultural and socioeconomic environments), and chronosystems (effects of consistency and change over the life course). The **structures of the ecological environment** serve as a framework for this analysis of theories that explain the processes by which economic deprivation affects children’s socioemotional development.

Microsystems

Within microsystems of the immediate environment such as the home, peer group, and school, proximal processes operate either to facilitate or impede development. Theories of the

socioemotional effects of poverty have focused on proximal processes within the microsystem of the family. They include stress–coping theory and family process models. Child characteristics, whether genetically or environmentally determined, also influence developmental outcomes (Bronfenbrenner, 1995).

Home Environment

Stress–Coping Theory. Pearlin (1989) defined *stressors* as life circumstances that give rise to stress. He distinguishes between stressors that are discrete life events (such as income loss) and chronic strains, the more enduring or recurrent life problems (such as struggling to meet daily subsistence needs). Life events such as income loss disrupt or threaten to disrupt usual activities; they require major readjustments of behavior resulting in psychological distress (Thoits & Hannan, 1979). Chronic strains associated with the inability to adequately fulfill family role obligations can be particularly stressful and are believed to account for depression in parents experiencing economic hardship (Pearlin, Lieberman, Menaghan, & Mullan, 1981). Chronic strains also force readjustments of behavior repeatedly. Persistent poverty, for example, requires daily accommodations as parents strive to meet the needs of their families.

Although links between economic hardship and higher occurrences of stressful life events have been documented (McLeod & Kessler, 1990), chronic strains, not discrete life events, may be more responsible for the higher levels of psychological distress found among poor people (Belle, Longfellow, & Makosky, 1982; Hall, Williams, & Greenberg, 1985). Chronic poverty also may have a strong influence on children’s adjustment because multiple life stressors have cumulative effects (Shaw, Vondra, Hommerding, Keenan, & Dunn, 1994). Elder and Caspi (1988), however, contended that income loss is more stressful than chronic deprivation. Unlike persistent poverty, economic loss disrupts customary ways of living and behaving, resulting in conflict between the family’s accustomed desires and the ability to satisfy these desires.

Individuals use a variety of coping behaviors to prevent, avoid, or contend with the emotional

distress caused by life events and chronic strains (Pearlin & Schooler, 1978). Coping behaviors include obtaining social resources (such as emotional and concrete support from others), drawing on psychological resources (such as self-esteem and feelings of personal efficacy), and engaging in specific responses (such as problem solving). Economic deprivation, however, can constrict and erode coping behaviors (Kaplan, Roberts, Camacho, & Coyne, 1987; McLeod & Kessler, 1990; Ross & Mirowsky, 1989). Having insufficient resources to assist in resolving common events such as car breakdowns, illnesses, or job layoffs can overtax the individual's capacity to cope (Thoits & Hannan, 1979). A diminished coping capacity creates a sense of powerlessness, which erodes self-esteem and the sense of mastery, control, and personal efficacy, making it less likely that individuals will engage in the active problem solving that Kaplan et al. (1987) contended prevents depression. Poverty also is linked to lower levels of social support, a relation that is discussed later in this article.

Family Process Models. Stress-coping models have been elaborated by investigations of the family processes that mediate the relation between economic hardship and children's socioemotional adjustment (see Conger et al., 1993). These models suggest that adverse economic conditions affect family interactions by creating economic pressure or daily strains, resulting in parental depression. Parental depression impairs children's socioemotional functioning directly by resulting in low levels of nurturance, uninvolved and inconsistent parenting and harsh discipline, and indirectly by causing conflict in the marital relationship.

Although similar family processes are supported by other research (Brody et al., 1994), studies do not always confirm that parenting practices explain the relation between economic deprivation and children's socioemotional development (Hanson et al., 1997; McLeod & Shanahan, 1993). McLeod and Shanahan found that, in contrast to current poverty, neither the frequent use of physical punishment nor maternal emotional responsiveness mediated the socioemotional effects of persistent poverty. They suggested that as poverty persists families

adapt to economic deprivation and family interactions stabilize, an interpretation consistent with Elder and Caspi (1988) and with resilience theories that focus on family adaptation to life stressors (Garmezy, 1993). If parent-child interactions do not explain the relation between persistent poverty and children's socioemotional problems, then alternative settings and explanations must be examined. These include interactions in immediate settings other than the family, child characteristics, and influences of other structures.

Peer Group

Poor children are more likely to experience peer rejection, lower popularity, and conflictual peer relations than are nonpoor children (Bolger, Patterson, Thompson, & Kupersmidt, 1995; Patterson et al., 1990; Patterson, Vaden, & Kupersmidt, 1991). Fewer family resources would likely constrain purchasing acceptable clothing and engaging in peer activities. Children who are perceived as "different" may be stigmatized and isolated, and less frequent participation in peer-group activities would decrease opportunities for social interactions and building and maintaining peer relations. Children who are isolated from mainstream peer groups also may establish peer relations based on alternative values, which encourage behaviors such as aggression (Dodge, Pettit, & Bates, 1994).

School

Poor children are more likely to attend schools with few resources (National Research Council, 1993), and low-achieving and poor-behavior classroom environments can increase children's behavior problems (Werthamer-Larsson, Kellam, & Wheeler, 1991). Adolescents who perceive their school environments as less supportive also are more likely to exhibit psychological distress (Battistich, Solomon, Kim, Watson, & Schaps, 1995; Dubois, Felner, Brand, Adan, & Evans, 1992). Although research that examines whether the school environment mediates the relation between poverty and children's socioemotional functioning is rare, one such study suggests adolescents' school experiences are one of several factors that account

for the relation between socioeconomic disadvantage and socioemotional adjustment (Felner et al., 1995).

Child Characteristics

Genetically determined characteristics, such as sex and temperament, and health risks, such as chronic medical problems, undernutrition, and elevated body lead levels, frequently are examined in assessing the relation between poverty and children's socioemotional development. These characteristics may compromise children's development because they affect the regularity or quality of proximal processes that operate within microsystems. Child temperament, for example, can have independent or moderating effects on parenting practices that influence children's socioemotional development (McLoyd, 1990). Poverty and income loss may affect boys more than girls (Bolger et al., 1995; Patterson et al., 1990) because of constitutional differences between the sexes or because of differential exposure to stressful circumstances such as marital conflict and detrimental parenting practices (Rutter, 1987).

Although poverty is associated with children's poor health and health conditions that limit daily activity (Cairo, Zill, & Bloom, 1994; Newacheck, Jameson, & Halfon, 1994), child health measures have been inconsistently linked to children's socioemotional development (see, for example, Gortmaker, Walker, Weitzman, & Sobol, 1990; Hao, 1995). Studies that have found relations between chronic health conditions and children's socioemotional development suggest that child health problems and poverty have additive or multiplicative effects (Gortmaker et al., 1990; McGauhey & Starfield, 1993).

Lower caloric intake, vitamin and mineral deficiencies (Food Research and Action Center, 1991; Oski, 1993), and physical indicators of undernutrition, such as comparisons to national standards of height for age, weight for height, and rate of weight gain (Frank & Zeisel, 1988; Miller & Korenman, 1994), also are found more frequently among poor children. Studies have inconsistently found relationships between undernutrition and children's socioemotional development (Deinard, Gilbert, Dodds, &

Egeland, 1981; Korenman, Miller, & Sjaastad, 1995), but failure to thrive and iron deficiencies appear to compromise children's socioemotional development (Drotar & Sturm, 1992; Oski, Honig, Helu, & Howanitz, 1983). Research has not determined, however, that undernutrition is an explanation for the relationship between poverty and children's socioemotional development.

Despite a recent decline in blood lead levels in the U. S. population, being of young age, of African American or Hispanic origin, and living in a central city or in a low-income household continue to be risk factors (Pirkle et al., 1994). Low-income and ethnic minority status increase the probability that a child lives in deteriorating older housing with lead-based paint or in residential areas containing lead-contaminated soil and dust. Although the developmental effects of elevated body lead levels are the result of a complex process involving biological, environmental, and socioeconomic factors, a few studies suggest that elevated lead levels can have an independent influence on children's socioemotional development (Bellinger, Leviton, Allred, & Rabinowitz, 1994; Sciarillo, Alexander, & Farrell, 1992). As with the effects of child health conditions and undernutrition, no clear research evidence exists that an elevated body lead level is a factor that explains the relation between poverty and children's socioemotional problems.

Microsystem Assessment and Interventions

Stress-coping theory and family process models suggest a multidimensional assessment of the microsystem of the home to select appropriate interventions for economically disadvantaged families and children who exhibit socioemotional problems. Assessing the family's financial history (long-term versus recent income loss) and the chronic strains or discrete life events associated with these economic conditions may provide valuable information for selecting appropriate interventions. Other relevant areas of assessment are parental depression, coping behaviors and abilities (accessing support from others, self-esteem and feelings of personal efficacy, and problem solving), the quality of the marital or partner relationship (if applicable),

and parenting practices (providing appropriate nurturance, involvement, and consistency without using harsh or physical discipline). Depending on the unique assessment, practitioners can choose among appropriate interventions to increase material or economic resources, help parents deal more effectively with life events or chronic strains, treat depression, increase coping skills, resolve couple conflict, and enhance effective parenting practices. Although research offers less guidance in assessing the effects of poverty on proximal processes in the peer group and school, it suggests that assessing the adequacy of peer interactions, peer group values, and the student's perceptions of the school environment can suggest appropriate interventions. These can range from social skills training to advocating on behalf of the child or adolescent.

Characteristics of the child do not appear to explain the relation between poverty and children's socioemotional problems. Nonetheless, assessing the child's temperament, differential parenting practices of boys versus girls, the child's nutrition and health status, and body lead levels for children living in high-risk housing or neighborhoods may uncover factors that intensify the effects of poverty or independently contribute to socioemotional problems. Appropriate interventions may include enhancing parenting skills, assisting parents in securing sufficient nutritious food or medical treatment, or teaching the child interpersonal skills if the child's temperament, undernutrition, or health status has resulted in social isolation or impaired interpersonal relationships.

Mesosystems

Mesosystems encompass the interrelations among two or more microsystems, each of which contain the developing person (Bronfenbrenner, 1994). Examples of mesosystems are relations between the child's school or peer group and the family. Experiences in one microsystem, such as parent-child interactions in the home, may influence activities and interactions in another, such as the peer group, or vice versa. Possible linkages among microsystems are numerous, but research that explores processes or linkages between two or more child settings

that may explain the effects of poverty on children's socioemotional development is rare. There is some evidence, however, that low levels of maternal school involvement partially mediate the effect of economic deprivation on school social adjustment (Bolger et al., 1995). Mothers who are uninvolved in their children's schools also may use less skilled parenting practices in the home, and the effects of these practices are observed in the classroom.

Mesosystem Assessment and Interventions

Research on the effects of poverty on children's socioemotional development that influence the interrelations between two or more microsystems is so rare that it offers little practice guidance. Assessing mesosystems, however, may assist in choosing the appropriate system in which to intervene. The effect of poverty on parenting practices within the home, for example, may result in children's behavior problems, which in turn are responsible for their problematic peer relations. Likewise, poor children may experience unsupportive school environments, which may adversely affect their socioemotional adjustment, making it more difficult for parents to provide nurturing, involved, and supportive parenting in the home.

Exosystems

Exosystems consist of connections and processes between two or more settings, but only one contains the developing person. The home and the parents' workplaces are examples of common settings for the child; events that occur in the parents' workplaces can have consequences for the child in the home. The most frequently examined exosystems that may contribute to the process by which poverty affects children's socioemotional development are the parent's social support network and the overall neighborhood context.

Social Support Networks

A person's social support network—individuals outside the family (kin, neighbors, and friends) who engage in activities and exchanges of an affective or material nature—can mitigate the effects of stress (Hashima & Amato, 1994) and enhance parenting practices (Cochran &

Brassard, 1979). Despite their greater need, low-income people have fewer social contacts, receive lower levels of material and social support (Auslander & Litwin, 1988; Campbell, Marsden, & Hurlbert, 1986; Fischer, 1982), and can be members of social networks that can themselves be a source of obligation and stress (Stack, 1974). As these studies would suggest, poverty increases parental psychological distress by reducing access to social support (Simons, Lorenz, Wu, & Conger, 1993).

Community Environments

A lower-quality community environment may affect children's socioemotional development indirectly by undermining parenting practices, or directly by resulting in fewer economic and social opportunities, inappropriate role models, inadequate adult supervision, or detrimental peer influences (Jencks & Mayer, 1990). A few studies that have examined the effects of family poverty and community economic disadvantage on children's socioemotional development simultaneously indicate that neighborhood violence can explain the relation between family poverty and aggressive behaviors (Guerra, Huesmann, Tolan, Van Acker, & Eron, 1995) and can affect children's socioemotional adjustment both by disrupting parenting practices and by increasing associations with deviant peers (Simons, Johnson, Beaman, Conger, & Whitbeck, 1996).

Exosystem Assessment and Interventions

Assessing parental social support networks for their adequacy in providing emotional and material support and for sources of stress may indicate the need to assist parents in increasing the number or supportiveness of social network members or to disengage from stressful relationships. Assessing children's exposure to community violence, peer group, and community supports for parents can suggest appropriate interventions at the individual, family, or community level.

Macrosystems

Bronfenbrenner (1994) referred to the macrosystem as a cultural "blueprint" that partially determines the social structures and activities

that occur in the more immediate system levels. Components of the macrosystem include material resources, opportunity structures, alternatives available throughout the life course, lifestyles and customs, and shared knowledge and cultural beliefs. Ogbu (1981) concurred that culturally and socially defined role expectations influence parenting practices and developmental outcomes. He contended that although all parents use child-rearing practices to encourage the development of appropriate competences that are required for adult roles, "instrumental competences" and adult role expectations are defined differently in various populations. These role expectations and their required competences determine the parenting practices that particular racial or ethnic group caretakers use to rear children.

Other researchers, however, argue that there are few, if any, ethnic group differences in developmental processes (Rowe, Vazsonyi, & Flannery, 1994). Research has produced inconsistent findings when examining racial or ethnic differences in the relation between parenting practices and children's socioemotional development. Deater-Deckard, Dodge, Bates, and Pettit (1996), for example, found that physical discipline predicted externalizing behaviors problems in white, but not African American children; but Sugland et al. (1995) found contradictory results. Only a few studies have examined whether processes by which poverty affects children's socioemotional functioning vary by race or ethnicity; no differences were evident (Eamon, 1998; McLeod & Shanahan, 1993).

Macrosystem Assessment and Interventions

Despite the unresolved controversy over whether and in which ways developmental processes vary by race or ethnicity, assessment and intervention procedures are likely to be accepted and effective only if they are consistent with the family's lifestyle and cultural beliefs. Even if developmental processes do not vary by race or ethnicity, economic resources and access to employment and educational opportunities, quality housing and neighborhoods, nutritious food, and health care surely do. These racial or ethnic differences and the relatively

high poverty rate among children compared with other age groups (Lamison-White, 1997) suggest that macro social policies that would ensure equal employment opportunities, income maintenance when the marketplace fails, universal access to health care, nutritious food, and quality housing, schools, and neighborhoods would promote proximal processes in more immediate system levels and enhance children's socioemotional development.

Chronosystems

Chronosystems incorporate the time dimension of Bronfenbrenner's model, including consistency or change over the life course. Changes such as parental divorce, historical events, or social conditions occur within the environment, and changes such as life transitions, within the developing person (Bronfenbrenner, 1994). Researchers have documented the family processes that mediate the effects of income loss from historical events such as the Great Depression (Elder & Caspi, 1988) and the 1980s Midwest farm crisis (Conger et al., 1993) on children's socioemotional development. Depression-era research indicates that the effects of economic loss are more likely to be detrimental for younger children, and the lingering socioemotional effects of early poverty experiences have been confirmed recently (Dubow & Ippolito, 1994). Economic deprivation that persists across the life span and that occurs recently in a child's life also appear to be risk factors (Duncan et al., 1994; Hao, 1995; Korenman et al., 1995). The importance of specific proximal processes for children's socioemotional development or the importance of the ecological environment in which the proximal processes occur, however, may change as children age.

Parent-Child Interactions

Although few studies have addressed these latter issues, Rothbaum and Weisz (1994) proposed two competing hypothesis concerning the importance of parenting practices versus other types of processes as children develop. On one hand, the parent-child association may be strongest during early childhood because of the relatively fewer other socialization influences, such as peers and teachers, compared with later

childhood. Alternatively, the relation between parenting practices and child behavior may be stronger in later childhood because of the cumulative and reciprocal influences between the parents and child over time. Their meta-analysis supported the latter alternative; the association between the quality of parenting and externalizing behaviors was stronger for older children and adolescents compared with toddlers and preschoolers.

Chronosystem Assessment and Interventions

Because parent-child interactions appear to be particularly vulnerable to income loss, community agencies, companies, and divorce mediation could provide educational information on family risks and opportunities for mental health services when events such as divorce and company closings or layoffs would be expected to result in income loss. Social policies that would extend unemployment benefits, provide training funds, and offer income support to parents to supplement work and child support also may stabilize family interactions and prevent the effects of enduring childhood poverty. Although assessing other microsystems and social structures would likely be more relevant for older children, Rothbaum and Weisz's analysis emphasizes the importance of parent-child interactions throughout childhood.

Summary

The nested structures of the ecological environment proposed by Bronfenbrenner's process-person-context-time model provide a useful framework for examining theories of the effects of economic deprivation on children's socioemotional development. Within the microsystem of the home, stress-coping theory and family process models frequently are used to explain the socioemotional developmental effects of poverty. The stressful life events or chronic strains caused by economic deprivation appear to affect children's socioemotional functioning by eroding parental coping behaviors, creating psychological distress and marital discord, and resulting in parenting practices that are uninvolved, inconsistent, emotionally unresponsive, and harsh. This review suggests

that practitioners who work with low-income families and children with socioemotional problems should assess parental psychological distress, coping behaviors, the quality of the marital or partner relationship, and parenting practices to assist in selecting appropriate interventions.

Parent-child interactions do not always account for the relation between poverty and children's socioemotional functioning. Poverty may result in children's socioemotional problems by impeding or influencing peer relations, attending low-quality schools, or being exposed to unsupportive school environments. Assessing interactions within the peer group and school also may provide valuable assessment information. Child characteristics such as a difficult temperament, gender, and health problems (chronic health conditions, undernutrition, and elevated lead levels) may have independent effects on socioemotional functioning or may intensify the influence of poverty. Assessing and providing appropriate interventions for these problems may improve children's socioemotional functioning.

Poverty may affect children's socioemotional development in mesosystems (such as linkages between the home and school) and in exosystems (the parent's social support group and community). Increasing support in parents' social support networks and communities may decrease parental psychological distress and improve parenting practices. Assessing the child's exposure to violence and associations with deviant peers may also provide information for intervening at the individual, family, or community level.

Consistent with Bronfenbrenner's conceptualization of macrosystems, researchers and social workers frequently recognize that developmental processes may be contingent on a particular culture or subculture, including shared beliefs and knowledge, and on available economic resources and opportunities. Although whether the processes by which poverty affects the socioemotional development of children vary by race or ethnicity or culture is yet to be determined, social policies that increase access to economic resources and quality housing, neighborhoods, schools, nutrition, and health

care are likely to enhance proximal processes in the more immediate system levels and result in better developmental outcomes.

Chronosystems, historical and life events, and individual change across the life span, also have important influences on child development. Although chronic poverty has detrimental effects on children's socioemotional development, income loss appears to be particularly disruptive to parent-child interactions. Social policies that educate families concerning these risks and ensure families access to mental health services and economic resources may help to stabilize the parent-child interactions that appear to have detrimental effects on the socioemotional functioning of both younger and older children.

As Bronfenbrenner observed, the processes by which economic deprivation affects children's socioemotional development are multiple and complex. Given the complexities and multiple paths by which poverty can affect the socioemotional development of children, an ecological systems model provides an appropriate framework to guide research, assessment procedures, and selection of appropriate interventions for poor families and children experiencing socioemotional problems. ■

References

- Auslander, G. K., & Litwin, H. (1988). Social networks and the poor: Toward effective policy and practice. *Social Work, 33*, 234-238.
- Battistich, V., Solomon, D., Kim, D., Watson, M., & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal, 32*, 627-658.
- Belle, D., Longfellow, C., & Makosky, V. P. (1982). Stress, depression and the mother-child relationship: Report of a field study. *International Journal of Sociology of the Family, 12*, 251-263.
- Bellinger, D., Leviton, A., Allred, E., & Rabinowitz, M. (1994). Pre- and postnatal lead exposure and behavior problems in school-aged children. *Environmental Research, 66*, 12-30.
- Bolger, K. E., Patterson, C. J., Thompson, W. W., & Kupersmidt, J. B. (1995). Psychosocial adjustment among children experiencing persistent and

- intermittent family economic hardship. *Child Development*, 66, 1107–1129.
- Brody, G. H., Stoneman, Z., Flor, D., McCrary, C., Hastings, L., & Conyers, O. (1994). Financial resources, parent psychological functioning, parent co-caregiving, and early adolescent competence in rural two-parent African-American families. *Child Development*, 65, 590–605.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32, 513–531.
- Bronfenbrenner, U. (1994). Ecological models of human development. In T. Husen & T. N. Postlethwaite (Eds.), *The international encyclopedia of education* (2nd ed., pp. 1643–1647). New York: Elsevier Science.
- Bronfenbrenner, U. (1995). Developmental ecology through space and time: A future perspective. In P. Moen, G. H. Elder, Jr., & K. Luscher (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 619–647). Washington, DC: American Psychological Association.
- Bronfenbrenner, U., & Ceci, S. J. (1994). Nature–nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review*, 101, 568–586.
- Cairo, M. J., Zill, N., & Bloom, B. (1994). *Health of our nation's children* (DHHS Publication No. PHS 95-1519). Hyattsville, MD: National Center for Health Statistics.
- Campbell, K. E., Marsden, P. V., & Hurlbert, J. S. (1986). Social resources and socioeconomic status. *Social Networks*, 8, 97–117.
- Cochran, M. M., & Brassard, J. A. (1979). Child development and personal social networks. *Child Development*, 50, 601–616.
- Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1993). Family economic stress and adjustment for early adolescent girls. *Developmental Psychology*, 29, 206–219.
- Deater-Deckard, K., Dodge, K. A., Bates, J. E., & Pettit, G. S. (1996). Physical discipline among African American and European American mothers: Links to children's externalizing behaviors. *Developmental Psychology*, 32, 1065–1072.
- Deinard, A., Gilbert, A., Dodds, M., & Egeland, B. (1981). Iron deficiency and behavioral deficits. *Pediatrics*, 68, 828–833.
- Dodge, K. A., Pettit, G. S., & Bates, J. E. (1994). Socialization mediators of the relation between socioeconomic status and child conduct problems. *Child Development*, 63, 649–665.
- Dornfeld, M., & Kruttschnitt, C. (1992). Do the stereotypes fit? Mapping gender-specific outcomes and risk factors. *Criminology*, 30, 397–419.
- Drotar, D., & Sturm, L. (1992). Personality development, problem solving, and behavior problems among preschool children with early histories of nonorganic failure-to-thrive: A controlled study. *Journal of Developmental and Behavioral Pediatrics*, 13, 266–273.
- Dubois, D. L., Felner, R. D., Brand, S., Adan, A. M., & Evans, E. G. (1992). A prospective study of life stress, social support, and adaptation in early adolescents. *Child Development*, 63, 542–557.
- Dubow, E. F., & Ippolito, M. F. (1994). Effects of poverty and quality of the home environment on changes in the academic and behavioral adjustment of elementary school-age children. *Journal of Clinical Child Psychology*, 23, 401–412.
- Duncan, G. J., Brooks-Gunn, J., & Klebanov, P. K. (1994). Economic deprivation and early childhood development. *Child Development*, 65, 296–318.
- Eamon, M. K. (1998). *A structural model of the effects of poverty on the socio-emotional development of children*. Unpublished doctoral dissertation, University of Wisconsin, Madison.
- Elder, G. H., Jr., & Caspi, A. (1988). Economic stress in lives: Developmental perspectives. *Journal of Social Issues*, 44(4), 25–45.
- Felner, R. D., Brand, S., Dubois, D. L., Adan, A. M., Mulhall, P. F., & Evans, E. G. (1995). Socioeconomic disadvantage, proximal environmental experiences, and socioemotional and academic adjustment in early adolescence: Investigation of a mediated effects model. *Child Development*, 66, 774–792.
- Fischer, C. S. (1982). *To dwell among friends: Personal networks in town and city*. Chicago: University of Chicago Press.
- Food Research and Action Center. (1991). *Community Childhood Hunger Identification Project: A survey of childhood in the United States*. Washington, DC: Author.
- Frank, D. A., & Zeisel, S. H. (1988). Failure to thrive. *Pediatric Clinics of North America*, 35, 1187–1206.
- Garmezy, N. (1993). Children in poverty: Resilience despite risk. *Psychiatry*, 56, 127–136.
- Gortmaker, S. L., Walker, D. K., Weitzman, M., & Sobol, A. M. (1990). Chronic conditions,

- socioeconomic risks, and behavioral problems in children and adolescents. *Pediatrics*, 85, 267–276.
- Guerra, N. G., Huesmann, L. R., Tolan, P. H., Van Acker, R., & Eron, L. D. (1995). Stressful events and individual beliefs as correlates of economic disadvantage and aggression among urban children. *Journal of Consulting and Clinical Psychology*, 63, 518–528.
- Hall, L. A., Williams, C. A., & Greenberg, R. S. (1985). Supports, stressors, and depressive symptoms in low-income mothers of young children. *American Journal of Public Health*, 75, 518–522.
- Hanson, T. L., McLanahan, S., & Thomson, E. (1997). Economic resources, parental practices, and children's well-being. In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 190–238). New York: Russell Sage Foundation.
- Hao, L. (1995). Poverty, public assistance, and children in intact and single-mother families. *Journal of Family and Economic Issues*, 16(2/3), 181–205.
- Hashima, P. Y., & Amato, P. R. (1994). Poverty, social support, and parental behavior. *Child Development*, 65, 394–403.
- Jencks, C., & Mayer, S. E. (1990). The social consequences of growing up in a poor neighborhood. In L. E. Lynn, Jr. & M.G.H. McGeary (Eds.), *Inner-city poverty in the United States* (pp. 111–186). Washington, DC: National Academy Press.
- Kaplan, G. A., Roberts, R. E., Camacho, T. C., & Coyne, J. C. (1987). Psychosocial predictors of depression. *American Journal of Epidemiology*, 125, 206–220.
- Korenman, S., Miller, J. E., & Sjaastad, J. E. (1995). Long-term poverty and child development in the United States: Results from the NLSY. *Children and Youth Services Review*, 17(1/2), 127–155.
- Lamison-White, L. (1997). *Poverty in the United States: 1996* (Current Population Reports, Series P60-198). Washington, DC: U. S. Government Printing Office.
- McGauhey, P. J., & Starfield, B. (1993). Child health and the social environment of white and black children. *Social Science and Medicine*, 36, 867–874.
- McLeod, J. D., & Kessler, R. C. (1990). Socioeconomic status differences in vulnerability to undesirable life events. *Journal of Health and Social Behavior*, 31, 162–172.
- McLeod, J. D., & Shanahan, M. J. (1993). Poverty, parenting, and children's mental health. *American Sociological Review*, 58, 351–366.
- McLoyd, V. C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, 61, 311–346.
- Miller, J. E., & Korenman, S. (1994). Poverty and children's nutritional status in the United States. *American Journal of Epidemiology*, 140, 233–243.
- National Research Council, Commission on Behavioral and Social Sciences and Education. (1993). *Losing generations: Adolescents in high-risk settings*. Washington, DC: National Academy Press.
- Newacheck, P., Jameson, W. J., & Halfon, N. (1994). Health status and income: The impact of poverty on child health. *Journal of School Health*, 64, 229–233.
- Ogbu, J. U. (1981). Origins of human competence: A cultural-ecological perspective. *Child Development*, 52, 413–429.
- Oski, F. A. (1993). Iron deficiency in infancy and childhood. *New England Journal of Medicine*, 329, 190–193.
- Oski, F. A., Honig, A. S., Helu, B., & Howanitz, P. (1983). Effect of iron therapy on behavior performance in nonanemic, iron-deficient infants. *Pediatrics*, 71, 877–880.
- Patterson, C. J., Kupersmidt, J. B., & Vaden, N. A. (1990). Income levels, gender, ethnicity, and household composition as predictors of children's school-based competence. *Child Development*, 61, 485–494.
- Patterson, C. J., Vaden, N. A., & Kupersmidt, J. B. (1991). Family background, recent life events and peer rejection during childhood. *Journal of Social and Personal Relationships*, 8, 347–361.
- Pearlin, L. I. (1989). The sociological study of stress. *Journal of Health and Social Behavior*, 30, 241–256.
- Pearlin, L. I., Lieberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 337–356.
- Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19, 2–21.
- Pirkle, J. L., Brody, D. J., Gunter, E. W., Kramer, R. A., Paschal, D. C., Flegal, K. M., & Matte, T. D. (1994). The decline in blood lead levels in the United States. *JAMA*, 272, 284–291.

- Ross, C. E., & Mirowsky, J. (1989). Explaining the social patterns of depression: Control and problem solving—or support and talking? *Journal of Health and Social Behavior*, 30, 206–219.
- Rothbaum, F., & Weisz, J. R. (1994). Parental caregiving and child externalizing behavior in nonclinical samples: A meta-analysis. *Psychological Bulletin*, 116, 55–74.
- Rowe, D. C., Vazsonyi, A. T., & Flannery, D. J. (1994). No more than skin deep: Ethnic and racial similarity in developmental process. *Psychological Review*, 101, 396–413.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57, 316–331.
- Sciarillo, W. G., Alexander, G., & Farrell, K. P. (1992). Lead exposure and child behavior. *American Journal of Public Health*, 82, 1356–1360.
- Shaw, D. S., Vondra, J. L., Hommerding, K. D., Keenan, K., & Dunn, M. (1994). Chronic family adversity and early child behavior problems: A longitudinal study of low income families. *Journal of Child Psychology and Psychiatry*, 35, 1109–1122.
- Simons, R. L., Johnson, C., Beaman, J., Conger, R. D., & Whitbeck L. B. (1996). Parents and peer group as mediators of the effect of community structure on adolescent problem behavior. *American Journal of Community Psychology*, 24, 145–171.
- Simons, R. L., Lorenz, F. O., Wu, C., & Conger, R. D. (1993). Social network and marital support as mediators and moderators of the impact of stress and depression on parenting behavior. *Developmental Psychology*, 29, 368–381.
- Stack, C. B. (1974). *All our kin: Strategies for survival in a black community*. New York: Harper & Row.
- Sugland, B. W., Zaslow, M., Smith, J. R., Brooks-Gunn, J., Coates, D., Blumenthal, C., Moore, K. A., Griffin, T., & Bradley, R. (1995). The early childhood HOME inventory and HOME-Short Form in differing racial/ethnic groups: Are there differences in underlying structure, internal consistency of subscales, and patterns of prediction? *Journal of Family Issues*, 16, 632–663.
- Thoits, P., & Hannan, M. (1979). Income and psychological distress: The impact of an income-maintenance experiment. *Journal of Health and Social Behavior*, 20, 120–138.
- Werthamer-Larsson, L., Kellam, S., & Wheeler, L. (1991). Effect of first-grade classroom environment on shy behavior, aggressive behavior, and concentration problems. *American Journal of Community Psychology*, 19, 585–602.

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