



Multiple risks and educational well being: A population-based investigation of threats to early school success

Heather L. Rouse*, John W. Fantuzzo

University of Pennsylvania, Graduate School of Education, 3700 Walnut Street–3rd Floor, Philadelphia, PA 19104, United States

ARTICLE INFO

Article history:

Received 31 August 2007

Received in revised form 5 December 2008

Accepted 10 December 2008

Keywords:

Early childhood risk factors

Cumulative risk

Poverty

Social service systems

Early

Intervention

ABSTRACT

The current research study used a developmental–epidemiological approach to examine the prevalence and impact of multiple risks on educational outcomes for an entire population of second grade children in a low-income, urban public school system. The Kids Integrated Data System (KIDS) provided information about children's entire histories of involvement with public services from birth through the end of second grade. Educational risk factors identified through these systems included poverty, child maltreatment, homelessness, low-maternal education, and biological birth risks. Multiple logistic regression analyses revealed the differential impacts of *type* and *amount* of risk on multiple academic and behavioral outcomes. Findings emphasized the disproportionate educational challenges that fall squarely in the purview of other publicly funded service providers outside the education system. Implications of this study include the increasing of the collaborations between early childhood educators and public service systems such as child welfare and homelessness. Enhancing the educational well being of young children with disproportionate risks requires intentional, systematic, and comprehensive interventions that can only be done through such collaboration.

© 2008 Elsevier Inc. All rights reserved.

Persistent achievement gaps in American public education have called attention to the needs of subgroups of children who fail to meet national education standards. Research shows that children from economically disadvantaged and minority families consistently perform below their non-poor, non-minority peers in both reading and mathematics achievement at all grade levels (Arnold & Doctoroff, 2003; National Center for Education Statistics; NCES, 2000; Neuman & Celano, 2006). These gaps have shown little measurable change since the early 1970s and are detected as early as preschool (Jencks & Phillips, 1998; U.S. Department of Education, 2007). The *No Child Left Behind* legislation was implemented in 2001 to address these gaps by putting in place accountability standards to ensure that all children reach minimal academic proficiency by third grade (NCLB; U.S. Department of Education, 2001). Accountability at grade three highlights the importance of early childhood for the development of foundational school readiness competencies, and the value of early intervention for children at risk of poor school performance.

National Research Council reports indicate that basic early childhood competencies that are necessary for school success are significantly compromised by multiple risk factors in the first few years of life (National Research Council, 1993; Shonkoff & Phillips, 2000). Birth risks such as premature birth, low birth weight and inadequate prenatal care compromise early cognitive ability and hinder children's capacity to capitalize on early educational opportunities (Bhutta, Cleves, Casey, Cradock, & Anand, 2002; Carmody et al., 2006; Nosarti et al., 2002; Peterson, 2003). Family characteristics including maternal education and

* Corresponding author. Tel.: +1 215 898 9842.

E-mail address: rouseh@gse.upenn.edu (H.L. Rouse).

poverty have also been associated with early developmental outcomes (Burchinal, Peisner-Feinberg, Pianta, & Howes, 2002; Fewell & Deutscher, 2004).

Two major risk factors that are routinely tracked by children's social service systems include child maltreatment (e.g., Darwish, Esquivel, Houtz, & Alfonso, 2000; Leiter & Johnsen, 1994; Veltman & Browne, 2001) and homelessness (e.g., Better Homes Fund, 1999; Masten, Miliotis, Graham-Bermann, Ramirez, & Neemann, 1993; Myers & Popp, 2003). The significant effects of these risks have been consistently highlighted in the empirical literature because of their devastating effects on multiple domains of development including cognition, language and literacy, and social–emotional skills. In early childhood, for example, one major consequence of child maltreatment is early onset antisocial behavior that later becomes associated with pervasive mental, physical, and interpersonal problems (Dodge, Pettit, & Bates, 1994; Masten & Wright, 1998).

This empirical literature documents the adverse effects of early exposure to risk factors associated with socioeconomic disadvantage and highlights the multiple, extrafamilial environments that render children less likely to succeed in school. Children living in dense urban environments are exposed to poor, low-quality schools, low-quality and often unregulated child care, inadequate access to health and human services, and economically depressed neighborhoods with high levels of violence and crime—all risk factors that threaten educational well being (Leventhal & Brooks-Gunn, 2000). Because of this multiple risk context, researchers find that low-income families are exposed to more risk factors over the course of their lifetime than non-poor families (Liaw & Brooks-Gunn, 1994). Furthermore, researchers have suggested that the consequences of any particular risk factor are more severe for children from families living in poverty because of the cumulative impact of multiple risks over time (McLoyd, 1990; Parker, Greer, & Zuckerman, 1988).

A cumulative approach to the study of risk has been used to examine the impact of the number of risks, rather than the type of risks, on developmental outcomes (Burchinal, Roberts, Hooper, & Zeisel, 2000; Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987; Sameroff, Seifer, Baldwin, & Baldwin, 1993). This approach considers the hypothesis that child outcomes are affected by the increased stress afforded by additional risk factors rather than by the nature of any particular risk factor (Deater-Deckard, Dodge, Bates, & Pettit, 1998). Studies have shown that the amount of risk, regardless of its specific type, is significantly related to poor child outcomes including cognition, language, and social–emotional skills (Burchinal et al., 2000; Gutman, Sameroff, & Cole, 2003). Furthermore, Sameroff and colleagues (1993) demonstrated through their longitudinal study of risk and cognitive development that the number of risk factors explained additional variance in child IQ above and beyond the variance attributed to the individual risk factors. This cumulative risk approach is particularly salient for young children living in dense, urban environments who are often differentially exposed to multiple risks across time (Liaw & Brooks-Gunn, 1994).

Early childhood risk research underscores the compelling need to examine the developmental impact of multiple risks in multiple ways. Addressing the complex educational needs of America's most vulnerable students requires population-based research that recognizes both the *type* and *amount* of risk experiences as they relate to developmental outcomes over time. Such research requires a comprehensive, multi-dimensional model that makes relevant distinctions between multiple risks and multiple educational outcomes for policy-relevant populations of young children. A developmental–epidemiological model (Buka & Lipsitt, 1994) provides a unique capacity to add to this early risk literature and to inform early childhood education by incorporating both population-focused inquiry *and* multi-dimensional developmental theory.

Foundational concepts from public health and epidemiology inform the developmental–epidemiological model by emphasizing population-based inquiry. This approach is well suited for applied research because it seeks to capitalize on information collected by existing, public surveillance systems that are charged to identify and provide for the needs of vulnerable populations. Every municipality in the U.S. has established public service systems with trained sentinels to monitor specific risk factors across the population that have been identified as national priorities for the well being of children. Public assistance programs such as Temporary Assistance for Needy Families (TANF) provide financial support for families with little or no income. Child welfare systems are charged to protect children from social/familial risks such as child maltreatment and homelessness. Medicaid provides health insurance for low-income, pregnant mothers to facilitate access to prenatal care. As public surveillance systems, these entities have identified personnel who are trained to collect reliable information from the children and families they serve (e.g., teachers, health providers, social workers). These personnel have direct access to entire communities of children providing a unique opportunity to examine multiple early risks across the population of children in large, urban, low-income neighborhoods. Researchers using this approach can capitalize on these built-in surveillance systems to examine the multiple risk context and the distinctive patterns of risk to inform when and where to intervene for vulnerable children (Costello, Foley, & Angold, 2006).

The developmental aspects of this model recognize child development as multi-dimensional and transactional, underscoring the importance of understanding children in their most proximal contexts. It is well suited to inform early intervention because it underscores the importance of both the *type* and *amount* of risk related to early developmental outcomes. It also recognizes the transactional influences between early competencies and experiences that enhance or impede development over time (Bronfenbrenner, 2005; Garbarino, 1992; Swick & Williams, 2006). For young children living in vulnerable environments, multiple biological and social risk factors interact bi-directionally with the development of early academic and behavioral skills (e.g., Jaffee, Caspi, Moffitt, & Taylor, 2004; Tremblay et al., 2004). Understanding the nature and impact of any individual risk factor is done by examining the unique and interactive relationships between multiple risks and multiple outcomes across multiple developmental stages (Cicchetti & Cohen, 1995). As such, it recognizes that some risk factors are related consistently to multiple sets of outcomes, while others are related differentially to only some sets of outcomes. It also acknowledges that specific developmental competencies are affected differentially by multiple sets of risk factors: some

Download English Version:

<https://daneshyari.com/en/article/354033>

Download Persian Version:

<https://daneshyari.com/article/354033>

[Daneshyari.com](https://daneshyari.com)