

## Are There Implications for Prevention Research from Studies of Resilience?

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In this commentary, the question is raised whether prevention research can benefit from resilience research in designing interventions. Although many areas in the investigative interests of prevention and resilience researchers overlap, Luthar, Cicchetti, and Becker may have set the bar too high for defining resilience in the context of varying levels of adversity.

### INTRODUCTION

"The Construct of Resilience: A Critical Evaluation and Guidelines for Future Work" (Luthar, Cicchetti, & Becker, 2000) is an excellent effort at clarifying a body of research that has provided important insights on overcoming the impact of adversity on development. Their efforts will go a long way toward helping resilience research overcome inconsistent terminology and conceptual blurriness. The author's critical perspective will strengthen future research on the study of positive adaptation among adversely affected children. Although prevention researchers may have similar interests in identifying and promoting pathways to positive adaptation among risk groups, they need to ask an important question: What are the implications for prevention research from studies of resilience? That is, can we assume, as Luthar et al., have, that the goals of preventive intervention research are sufficiently aligned with resilience research to enable us to draw implications from one to the other?

### DISCUSSION

Many areas in these two research branches overlap. Both prevention research and resilience research are concerned with the welfare of children living in adverse circumstances. Both areas of research have drawn from epidemiologic research to inform their investigations; identification of risk and protective factors has been at the core of both areas. Prevention research, like resilience research, is actively searching for processes that underlie the pathways to positive adaptation (e.g., Berlin, O'Neal, & Brooks-Gunn, 1998). Going beyond the identification of risk and protective factors, prevention research also has as its goal the design of interventions that enhance access to and experience of those factors that buffer the individual from adver-

sity (e.g., consistent relationships, adequate diet). Two examples of preventive intervention programs designed to reduce the impacts of adversity during infancy and childhood are used to illustrate how this translation from resilience and epidemiologic research to intervention occurs.

The Prenatal and Early Infancy Project in Elmira (Olds, Henderson, Chamberlain, & Tatelbaum, 1986) and its replication studies in Memphis and Denver sought to reduce maltreatment and mental-health-related problems in the children of first-time, low-income, and adolescent mothers by (1) educating women about the negative impact of cigarette and substance use during pregnancy and supporting decisions to reduce use, (2) encouraging self-sufficiency and the use of birth control to reduce the number of subsequent births, and (3) promoting sensitive parenting. Each of these intervention activities is supported by epidemiologic research that links a higher incidence of maltreatment and mental health problems to (1) being a poor, unmarried, or adolescent, first-time parent (e.g., Raine, Brennan, & Mednick, 1994), (2) substance use during pregnancy (Streissguth, Sampson, Barr, Bookstein, & Olson, 1994), (3) rapid, successive pregnancies in the family (e.g., Tygart, 1991), and (4) unempathic parenting (Raine, Brennan, & Mednick, 1994).

Similarly, the Infant Health and Development Program (1990) has sought to reduce cognitive and social impairments of premature and low-birth-weight infants through: (1) provision of child development information, screenings, and referrals; (2) support in the management of family-identified problems; and (3) center-based cognitive stimulation in special preschools. Again, this program's design was informed by epidemiologic research identifying the consequences and correlates of low birth weight and prematurity related to (1) poor long term developmental

Commentary on Luthar, Cicchetti, & Becker, "The Construct of Resilience: A Critical Evaluation and Guidelines for Future Work."

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outcomes (e.g., Klein, Hack, & Breslau, 1989), (2) poor coping among impoverished families of preterms (e.g., Escalona, 1982; Hunt, Cooper, & Tooley, 1988), and (3) inattention to cognitive and social stimulation needs of these children (Scarr-Salapatek & Williams, 1973).

In both intervention studies, negative factors that contribute to adverse outcomes have been directly translated to interventions with parents and children that will reduce experience of the negative factors and enhance positive adaptation.

In prevention research, exposure to intervention activities is conceptualized as a protective factor. Comparison with a control group, ideally through random assignment or careful sample matching, enables prevention studies to gauge intervention impacts. In such controlled experiments, prevention programs seek to instill competencies and reduce participation in risk behaviors among treatment participants. The control group is especially important in prevention research because families and children will naturally seek amelioration of their adverse circumstances whenever possible. Here again, resilience research can inform prevention research about those personologic and ecologic factors that support individuals' positive adaptation in the control groups. Knowing which subgroups of individuals are less successful in overcoming adversity enables prevention researchers to examine moderating influences on intervention success. For example, Olds and colleagues (1986, 1998) have identified that intervention impacts are most powerful for women with low psychological resources (defined as low intelligence, low sense of mastery, and high mental health symptoms) compared with high-resource women. Presumably, high-resource control participants are able to muster support for themselves that leads to outcomes comparable to those for low-resource participants receiving substantial support through treatment.

One aspect of the formulation by Luthar et al., (2000) however, seriously concerned me and led me to wonder whether "resilience" is the construct that should serve as the goal of intervention activities. Are prevention and resilience researchers perhaps interested in opposite ends of the developmental spectrum? In their article, Luthar and colleagues suggest that the operational definition of resilience must always be offered in relation to the degree of adversity of the affected group. They propose, without much supporting argument, that "When the stressor entails severe to catastrophic events, the maintenance of near-average functioning should suffice. On the other hand, when risks experienced generally fall in the more moderate range (e.g., see Luthar, 1991, p. 16),

evidence of superior functioning in conceptually important domains may be required to justify labels of resilience." These assertions suggest that in resilience studies of low-income children, such as Luthar (1991), resilience would be evidenced only by children performing, for example, in the upper 8%–10% of the normal distribution of IQ or ego resilience. Such high expectations, however, are difficult to support in either their own research or in prevention research.

Preventive interventions do not seek to promote superior functioning, nor could they ethically. Rather, they seek to ameliorate the circumstances of families and children who would otherwise perform in the lowest portion of the distribution and thereby to bring them to more normal or mid-range levels of functioning. Most would view the *achievement* of "average" developmental scores in young children growing up in poverty as reflecting their positive adaptation in the face of adversity (given that the average performance of poor children generally falls a full standard deviation below the mean). We could not, however, call this achievement "resilience" on the basis of the proposed criteria because poverty is moderately adverse and outcome is not superior.

Prevention researchers could further ask whether the *avoidance* of "bad things" such as participation in criminal activity, substance abuse, or the experience of mental health symptoms is sufficient to indicate resilience. According to the formulation proposed by these authors, such avoidance is not sufficient. And yet these often are the goals of preventive interventions. Superior functioning in any population is the result of extraordinary circumstances for the individual; we could say it is the result of an auspicious coincidence of genetic and environmental factors. If it were ordinarily attainable, such functioning would by definition not be superior. Luthar et al. (2000) have set the bar for resilience too high for interventions to achieve and should rethink this formulation in light of the goals of prevention research.

## ACKNOWLEDGMENTS

Thanks to David Olds and Susan Spieker for helpful discussions.

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