

National Symposium on Family Issues

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Families and Child Health

 Springer

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Preface

In the last several decades, scholars from multiple disciplines have turned their attention to understanding the implications of early childhood health for adult health and susceptibility to disease. Whether drawn from biology, medicine, or the social sciences, a growing body of empirical evidence suggests that maternal health before conception, prenatal and perinatal exposures, and conditions in childhood play critical roles in health over the life course. While the broad outlines are clear, scientific understanding of the multiple and interacting influences on child health and their role in later health continues to evolve rapidly. It is clear that health disparities are set in motion very early in life, but many questions remain about the mechanisms through which such disparities emerge and are sustained across the life span.

Young children are highly dependent upon their families, and extensive bodies of scholarship document ways in which family processes and resources influence children's lives. Yet, systematic attention to the role of families in shaping developmental processes that are central to health trajectories is sparse. In this volume, prominent scholars address the family's role in children's health and development, with emphases that range from the intrauterine environment to intra-family processes to larger physical and social contexts that differ by family resources. Their contributions move the field forward toward an integration of family scholarship and cutting-edge research on the developmental origins of health disparities.

The contributions to *Families and Child Health* are based on papers presented at the 19th Annual Penn State Symposium on Family Issues in October 2011. This edited volume is the culmination of two days of stimulating presentations and discussions in four sessions, each of which focused on a different question: (1) To what extent and through what mechanisms does development in the first 1,000 days after conception shape health later in life? (2) How do intra-family processes influence children's physical and psychological health? (3) How does the structural position of children's families influence their health, and what role do early health disparities play in the intergenerational transmission of inequality? (4) What types of social programs and policies are effective in protecting children's physical and mental health?

Each of the first four parts in this volume includes a chapter by a lead author, followed by shorter chapters by scholars from diverse disciplines that extend the

breadth and depth of the discussion. The volume concludes with an integrative chapter that summarizes key themes and overarching conclusions from all of the chapters.

Part I: Bio-social Influences on Early Childhood Health

Knowledge of the biological underpinnings of later health that are set in motion before birth or very early after birth is growing rapidly, as is the understanding of how biological processes interact with social conditions to produce health risks or supports for children. The first four chapters of this volume address biosocial influences on early childhood health and beyond. The first chapter, by David Barker, physician and professor of clinical epidemiology at University of Southampton, UK, and professor of cardiovascular medicine at Oregon Health and Science University, focuses on the developmental origins of chronic adult diseases. Barker assembles evidence in support of the developmental model of disease, which posits that nutrition during fetal life, infancy, and early childhood sets the functioning of key body systems that are linked to chronic disease. In particular, the first 1,000 days of development are considered critical to lifelong health and may even have implications for health in subsequent generations.

The next three chapters expand upon Barker's emphasis on nutrition during the first 1,000 days of life. Christopher Kuzawa, a biological anthropologist at Northwestern University, addresses the puzzling finding that, while fetal nutrition is influenced by the mother's lifelong nutrition, it is influenced minimally by nutritional supplementation during pregnancy. This finding is consistent with an evolutionary framework that stresses the responsiveness of organisms to sustained environmental change, rather than short-term fluctuations, and suggests that interventions should be based on strategies that mimic or promote long-term change in the nutritional environment. Steven Haas, a sociologist and demographer at Penn State University, argues that the developmental origins model of chronic disease needs greater specificity about the prenatal exposures that influence adult chronic disease, the multiple biosocial pathways through which they operate, and the critical periods of developmental plasticity. He also questions the emphasis of the model on the first 1,000 days of life, suggesting that the influence of early life health on adult health may be altered by health inputs and insults that occur across the life course. Nathan Fox, a psychologist at University of Maryland, summarizes the effects of early psychosocial deprivation on the development of institutionalized children in Romania and the effects of an intervention that randomly assigned the children to continued institutional care or enriched foster care. The findings reinforce the conclusion that early deprivation has long-term effects on child development that cannot be reversed; at the same time, the findings support Haas' contention that early health problems may be modified by later inputs. The results of the intervention indicate that if children are removed from inadequate environments when they are very young, some degree of recovery can occur.

Part II: Role of Family Dynamics in Children's Health

Children's family environments after birth are associated with a range of physical and psychological health problems including metabolic syndrome, cardiovascular disease, internalizing symptoms, and externalizing and risk behaviors. Parents can promote child health in their roles as sources of emotional security and attachment, as models for health behaviors, and as engineers of children's everyday environments and experiences (through the provision of opportunities, guidance, knowledge, supervision, and monitoring). Conversely, parents' physical and psychological health problems and problem behaviors, family conflict and discord, and neglect or abuse of children undermine children's well-being in ways that can have long-term health implications. Part II of this volume focuses on the mechanisms through which family experiences get under children's skin, instigating and exacerbating physiological processes that undermine physical and psychological health in childhood and beyond.

The lead chapter by Patrick Davies, a psychologist at the University of Rochester, and colleagues presents an evolutionary reformulation of emotional security theory (EST-R) and outlines how emotional security systems impact physical and mental health through their effects on perceptions of social threats, the stress-response system, and the development of cognitive, emotional, and social skill sets. Davies and colleagues argue that the literature on family processes and children's health has been overly general and not theoretically grounded. The authors provide a framework for increasing the clarity and depth of future research.

Psychologist Barbara Morrongiello and Ph.D. candidate Michael Corbett, both in the Department of Psychology at University of Guelph, Ontario, raise several issues and provide a discussion of extensions of Davies' EST-R model. For example, they point out that having one well-adjusted and emotionally available parent may be sufficient to counteract the negative influence of exposure to parental conflict on child health. Child temperament, gender, developmental stage, and levels of extrafamilial support may be additional moderators of the effects of exposure to adverse family relations. Separate chapters by Dennis Drotar and Douglas Coatsworth, both clinical psychologists (Drotar in the Division of Behavioral Medicine and Clinical Psychology at Cincinnati Children's Hospital and Coatsworth at Penn State), turn to interventions that might be informed by Davies' EST-R model. Drotar argues that an important next step is identifying particular processes through which emotional insecurity affects specific child health risks, behaviors, and outcomes. Greater specificity would allow for the development of targeted intervention strategies. Coatsworth summarizes evidence about the efficacy of family-focused interventions but notes that *how* such interventions work is often unclear. He suggests several ways in which EST-R might inform intervention studies and how intervention studies might help to refine our understanding of how emotional security systems impact children's physical and mental health.

Part III: Link to the Social Environment through Families

Families provide the resources children need for development, but the adequacy of those resources depends on family socioeconomic status (SES). In general, low SES families have fewer social and economic resources and greater stress than do high SES families. Family SES also influences exposure to upstream or meso-level factors (e.g., schools, neighborhoods, health-care systems) that play a role in children's health. Part III of this volume addresses the interactive effects of biological processes, family processes, and the structural position of families on children's health and well-being.

The lead chapter by Nancy Reichman, an economist and professor of pediatrics at Robert Wood Johnson Medical School, and Julien Teitler, a sociologist at Columbia University, summarizes research findings on SES disparities in birth outcomes and childhood health. Disparities in health by SES are present at birth and grow larger as children age, and Reichman and Teitler provide an overview of the types of exposures that may account for this pattern or moderate the influence of SES on children's health. These include family environments, physical neighborhood conditions, environmental toxins, and neighborhood social and economic composition. While these environments largely influence children's health from conception forward, the authors also review evidence that suggests that children's health can be affected by parental exposures before conception, consistent with Barker's thesis about maternal nutrition. The chapter by Marianne Hillemeier, a sociologist and demographer at Penn State, also provides evidence of the importance of women's preconceptional health and exposures to their offspring's health. Drawing on results from a randomized control trial to evaluate the effectiveness of an intervention designed for low-income women, Hillemeier reports that preconception health behavior and attitudes were positively impacted by health-promotion education and social support.

While recognizing the strengths of the Reichman and Teitler chapter, Thomas Glass, a social epidemiologist at Johns Hopkins University, provides a provocative chapter in which he critiques the absence of theory in the literature on social class and health, the lack of clarity in accounts of what social class is and how it shapes health, the overemphasis on individual agency, and the inattention to culture.

Part IV: Impact of Social Policies and Programs on Children's Health

The United States spends more money on health care than any other nation on earth. In the face of its investments, however, our nation continues to experience higher rates of child mortality and chronic health conditions than other developed countries. Furthermore, rates of childhood psychological and behavioral adjustment problems and developmental disabilities are on the rise. Many of these health prob-

lems track into adulthood, creating a burden for families and for the larger society as well as lost opportunities for productive adult lives. Part IV of this volume focuses on social programs and policies aimed at enhancing children's health as well as policies with other aims that unintentionally impact children's health. The chapters consider the challenges inherent in developing, implementing, and evaluating programs and policies for enhancing family supports for children's health.

The lead chapter by social epidemiologist Lisa Berkman and graduate student Emily O'Donnell, both at the Harvard School of Public Health, focuses on work-family policies not explicitly designed to improve the health of children. Based on an ecosocial model of disease and explicit attention to work-family strain, Berkman and O'Donnell argue that family-oriented policies that lack a health-care component may nonetheless influence parental and child health through their impact on parental health behaviors (e.g., smoking, drinking, diet), family economic resources, parental time, and access to social networks and environments. After reviewing evidence linking family and child policies to child health, the chapter reviews challenges researchers face in investigating the causal effects of family policies and the channels through which such policies influence children's health. Patricia O'Campo, an epidemiologist at University of Toronto, follows up on these themes by considering both the macro-social factors that influence extant family policies and work supports and by calling for more evaluation with new methods that synthesize existing evidence regarding the efficacy of complex programs and policies.

Chapters by Paul Chung, a pediatrician at UCLA and RAND, and colleagues and by Rebecca Kilburn, an economist at RAND, explore the impact of policies and programs on particular types of children and specific health conditions. Chung and his colleagues provide a detailed description of the strain experienced by parents of children with special health-care needs (CSHCN) and the importance of family leave policies for the families of such children. Kilburn reviews research indicating that it is not only children's physical health that influences adult health and well-being but also children's psychological and mental health that shapes adult health and achievement and, consequently, should be considered alongside physical health in the development of policies. Kilburn concludes by suggesting that work-family policies may be especially beneficial to children's psychological and mental health, as may be policies that seek to improve parents' human capital (e.g., education) or promote parents' physical or mental health.

Part V: Conclusion

The final chapter is an integrative commentary by Claudia Nau, a postdoctoral trainee at the Johns Hopkins Global Center on Childhood Obesity, and Jessica Heckert, a graduate student in the Department of Human Development and Family Studies at Penn State. Nau and Heckert offer a critical review of the information and questions that are addressed in this volume, including conceptual frameworks, empirical evidence and conclusions, and policy recommendations. They provide an

overview of the challenges to be faced in future research on the role of families in early child health, research that, by extension, is central to understanding health across the life span.

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A lively, interdisciplinary team of scholars from across the Penn State community meets with us annually to generate symposia topics and plans and is available throughout the year for brainstorming and problem solving. We appreciate their enthusiasm, intellectual support, and creative ideas. In the course of selecting speakers, symposium organizers consult with a wide range of people at other universities, at NICHD, and at other organizations in order to identify highly qualified scholars to participate in the symposium. We also sincerely thank Marianne Hillemeier, Cynthia Stifter, Molly Martin, and David Almeida for presiding over symposium sessions.

The efforts of many individuals went into planning the 2011 symposium and producing this volume. We are especially grateful for the assistance of the administrative staff in the Population Research Institute and Social Science Research Institute at Penn State, including Sherry Yocum, Angela Jordan, Miranda Bair, and Donna Panasiti. Finally, we could not have accomplished this work without Carolyn Scott, whose organizational skills, commitment, and attention to the many details that go into organizing a good conference and edited book series make it possible for us to focus on the ideas.

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