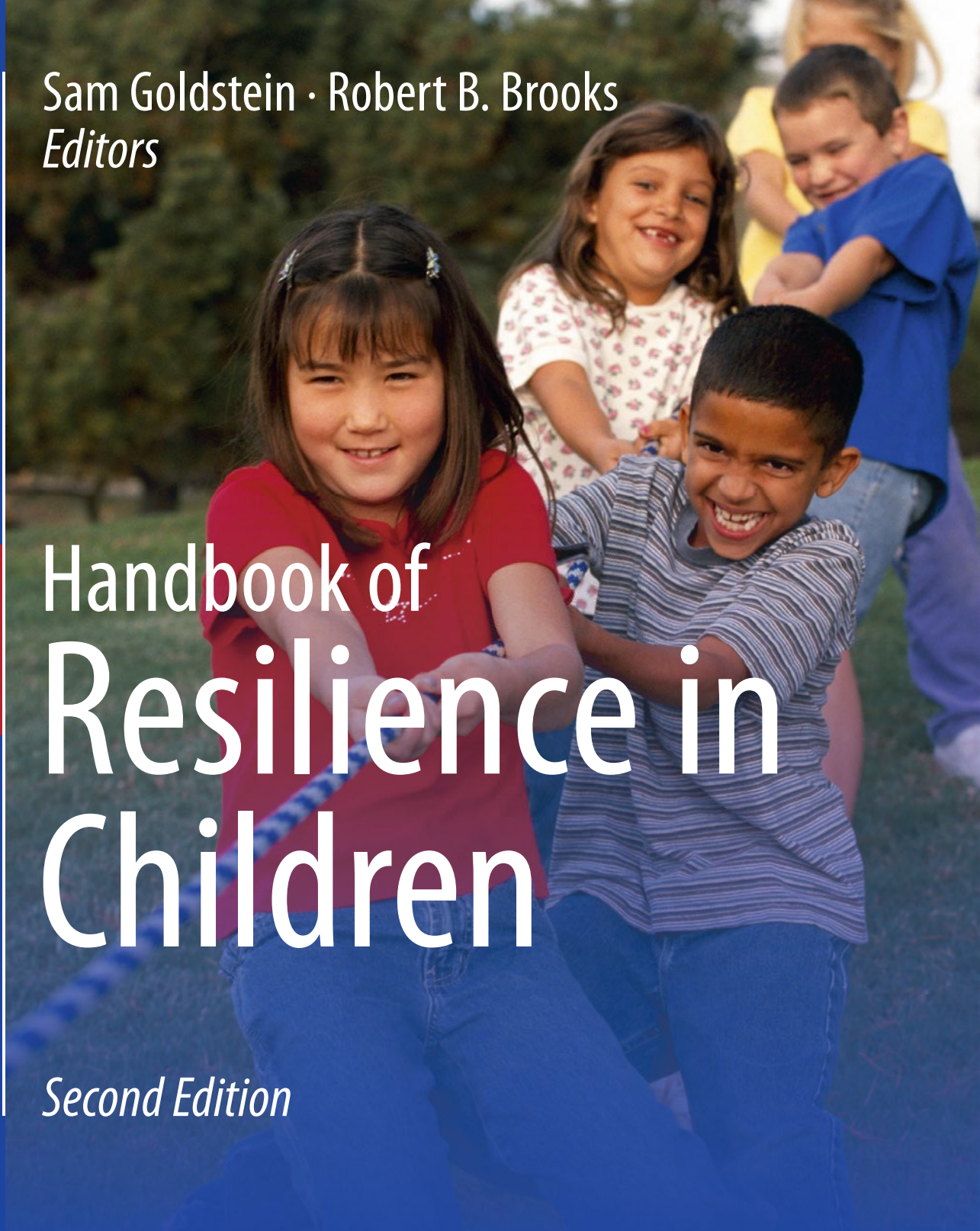
Sam Goldstein · Robert B. Brooks
Editors



Handbook of Resilience in Children

Second Edition

Springer

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Sam Goldstein • Robert B. Brooks
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Editors
Sam Goldstein
Neurology, Learning
and Behavior Center
Salt Lake City, UT 84102, USA

Robert B. Brooks
Department of Psychology
McLean Hospital and Harvard
Medical School
Belmont, MA 02498, USA

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This work is dedicated with love to my partner Sherrie. You never really know you're unhappy until you are finally happy.

Sam Goldstein

With love and appreciation to my wife Marilyn, my sons Rich and Doug, my daughters-in-law Cybèle and Suzanne, and my grandchildren Maya, Teddy, Sophie, and Lyla, all of whom are a source of joy in my life.

Robert B. Brooks

This volume is also dedicated to the memory of Dr. Howard Kaplan, a distinguished contributor to both editions of our Handbook. At the time of his passing he was a Distinguished Professor of Sociology at Texas A&M University, the Mary Thomas Marshall Professor of Liberal Arts, a Regents' Professor, and Director of the Laboratory of the Studies of Social Deviance of the Department of Sociology. Among his accomplishments, Howard spent the last 37 years following the outcome of a group of seventh graders he began studying in 1971. His contribution to the field will be remembered and his wit and wisdom will be missed.

Robert B. Brooks
Sam Goldstein

Preface

A 5-year-old child watched helplessly as his younger brother drowned. In the same year, glaucoma began to darken his world. His family was too poor to provide the medical help that might have saved his sight. His parents died during his teens. Eventually he found himself in a state institution for the blind. As an African American, he was not permitted to access many activities within the institution, including music. Given the obstacles he faced, one would not have easily predicted that he would someday become a world renowned musician.

This man's name is Ray Charles. His life story, similar to many other individuals who faced great emotional, physical, and environmental adversities, exemplifies that some can and do survive and in fact thrive. Yet, many others who encounter similar patterns of problems struggle to transition successfully into their adult lives, often finding themselves adrift in poverty, despair, and psychiatric problems.

A comparison of individuals who overcome numerous obstacles with those who do not invites several intriguing questions. What exactly do the survivors do that enable them to succeed? How do they think? What kinds of experiences do they have that may be absent in the lives of those who are not successful? Are some of these experiences unique to surviving in the face of adversity? How much of their survival can be predicted by genetics, parenting, education, mentoring, temperament, and/or mental health? In a world in which stress and adversity appear to multiply almost exponentially from one generation to the next, the answers to these and related questions have become increasingly important. This edited volume reflects our efforts to address these questions.

We met by chance at a national conference almost 20 years ago. The first author was speaking about childhood disorders, including attention-deficit hyperactivity disorder and learning disabilities. The second was discussing his increasing focus on the qualities that appeared to help children at risk overcome adversity. There was an instant connection as we realized after a combined 50 years of clinical practice that the best predictors of children's functional outcome into adulthood lay not in relief of their symptoms, but rather in an understanding, appreciation, and nurturance of their strengths and assets.

In the past 20 years, our initial connection has evolved into a very close professional and personal friendship. We have spent countless hours elaborating ideas about the importance of a strength-based approach in our work and our lives. We have coauthored five books focusing on the process of resilience across the life span, a school consultation text built on our resilience model, three texts incorporating the resilience model to help parents of children with problems such as anxiety, learning disability, and anger, and numerous trade and professional articles as well as the first edition of this volume. We have developed a parenting curriculum for nurturing resilience in children and created an award-winning documentary. Throughout this work, we have come to realize the importance of thinking, feeling, and behaving in certain ways as a means of successfully and happily negotiating life.

Increasingly these qualities of success have found themselves under an umbrella of resilience. A resilient mindset, the ability to cope with and overcome adversity is not a luxury or a blessing possessed by some, but increasingly an essential component for all. This emerging field of study, which once focused only upon those who confronted and overcame adversity, has found universal appeal as researchers and clinicians examine how the qualities of resilience may be applied to all individuals, even those who have not experienced significant adversity.

What we have learned and still must learn from studying children who have overcome great hardships can be applied to enhance the lives of all children. It is not difficult to understand and accept that helping individuals develop such characteristics of resilience as dealing effectively with stress and pressure, coping with everyday challenges, bouncing back from disappointments, adversity, and trauma, developing clear and realistic goals, solving problems, relating comfortably with others, and treating oneself and others with respect are important ingredients to a satisfying life. As this second edition volume will attest, numerous scientific studies of children facing great adversity in their lives support the basic premise that resilience is an important and powerful force, worthy of the attention it is receiving. Resilience appears to explain why some children overcome overwhelming obstacles, sometimes clawing and scrapping their way to successful adulthood, while others become victims of their early experiences and environments. Yet as you will read, there is still much to be understood about the processes that mediate and shape resilience.

As we have written elsewhere, our belief as well as the belief of others in the significance of resilience emerged slowly. This slow recognition resulted in many children and their families not being helped as effectively as they might have had a strength-based model been in place. Reflecting on our years of clinical practice, we realize that many children suffered because well-meaning parents and professionals expended time and energy to fix deficits rather than giving at least equal weight to building assets. The focus of parents, clinicians, and educators on fixing children's problems is not difficult to understand. As professionals, we came by this bias honestly. It is how we were trained. We were taught to identify that which is different in a negative way and prescribe interventions to reduce symptoms or problems.

The professional field has come to increasingly realize that this "deficit model" is fine for identifying how and why individuals are different, even for prescribing strategies to improve those differences. However, we now believe and are setting out to scientifically demonstrate that our highest goal, namely, to improve the future of all children, is best accomplished by identifying and harnessing their strengths and shaping resilient qualities. The deficit model has fallen far short in helping to achieve this goal. Symptom relief has simply not been found to be robustly synonymous with changing long-term outcome. We have come to appreciate that the qualities of resilience examined scientifically in this volume can in fact protect and insulate not only children at risk, but all of us.

We are extremely pleased and honored about the success of the first edition of this volume and the opportunity to create an expanded and revised second edition. As with the first volume, we are pleased by the interest and willingness of our authors to share their knowledge and insight. This second edition has added seven new chapters, multiple new authors, and expanded and revised past chapters. Our contributors represent a great diversity of backgrounds and research interests, but share a vision of the importance of understanding and harnessing the power of resilience. As with the first edition, Part I begins with a number of background chapters. We offer a basic overview of resilience and reasons why resilience should be studied. Other authors describe resilient processes, the basic concept of resilience, and the processes of resilience differentially between genders. Drs. Margaret Wright and Ann Masten provide a comprehensive review of the study of resilience and its advancement through three major waves of research over the past 3 decades. Dr. Kirby Deater-Deckard and colleagues offer an integrated review of the resilience literature from a biopsychosocial perspective. This theme is exemplified in a translational framework in Chap. 13 as Drs. Shadi Houshyar and Joan Kaufman provide an overview of resilience in the maltreated child. We are exceptionally pleased that Dr. Emmy Werner, one of the earliest and most renowned researchers in the area of resilience, provides a revised overview of what we have learned from large scale, longitudinal studies about resilience. Dr. Jack Naglieri brings his expertise in assessment and offers a review of the current science in measuring resilience and the prospective future of evaluating resilience in clinical practice.

Part II continues with a section on environmental issues, including poverty, domestic violence and mental illness in parents, families as contexts for children's adaptation, and children as victims. Part III applies resilience as a phenomenon in more traditionally defined clinical disorders, including delinquency and other disruptive disorders, depression as it relates to learned helplessness, learning disability, and youth with impaired self-control. Drs. Jane Gilliam, Karen Reivich, Tara Chaplin, and Martin Seligman discuss their work at the University of Pennsylvania and the increasing focus on resilience as a means of creating an optimistic mindset and effective functioning in the face of stress.

Part IV dealing with assessment offers three new chapters to this volume. An overview of efforts to measure resilience and resilience-related processes

are discussed as well as a number of promising new assessment tools. Part V focuses on resilience in clinical and school settings, offering a blend of revised and new chapters. These chapters represent our efforts at the beginning to create an applied psychology of resilience. A number of authors focus on the ways in which resilience theory can be used to enhance parenting, build self-esteem, provide educational opportunity, reduce schoolwide violence, and improve effective thinking. New to this edition are chapters by Dr. Beth Doll and Dr. Jonathan Cohen focusing on resilience processes in the classroom and school environment and Dr. David Crenshaw illuminating the treatment of traumatized children from a resilience framework.

Part VI includes four revised chapters focusing on resilience theory to shape the future of children and adults, including public health and developmental theories. Drs. Emily Winslow, Irwin Sandler, and Charlene Wolchik describe a program to build resilience in all children through a public health approach. Drs. Maurice Elias, Sarah Parker, and Jennifer Rosenblatt describe a model to facilitate educational opportunity as a means of strengthening resilience. Drs. Jennifer Taub and Melissa Pearrow describe schoolwide violence prevention programs as a means of strengthening resilient outcomes.

This second edition volume will again address which and by what processes variables within the child, immediate family, and extended community interact to offset the negative effects of adversity, thereby increasing the probability of positive development rather than dysfunction. Some of these processes likely reflect genetically inherent phenomena. Others involve the interaction of genetics and immediate environment, while still others reflect the impact of the extended environment. Some of these processes may serve to protect against the negative effects of stressors, while others may simply act to enhance development independent of the presence of stress.

It is our intent that this is the second edition of many volumes to change the foundation of applied psychology. It is our hope that this volume will provide readers with new ideas and theories and a more precise way of understanding and helping children. As we wrote in our first jointly authored text, *Raising Resilient Children* (2001), our worries for our children and their future are well founded. Yet there is reason to be optimistic about counteracting the negative influences in their lives. While advances in technology are taking place at an incredible pace, we believe strongly the future lies not in technology but in our children, children instilled by their parents, teachers, educators, and other adults with the resilient qualities necessary to help them shape a future with satisfaction and confidence.

Salt Lake City, UT, USA — Sam Goldstein, Ph.D
Needham, MA, USA — Robert B. Brooks, Ph.D

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Happiness is not the absence of problems but the ability to deal with them.

H. Jackson Brown

I have been sustained throughout my life by three saving graces—my family, my friends, and a faith in the power of resilience and hope. These graces have carried me through difficult times and they have brought more joy to the good times than I ever could have imagined.

Elizabeth Edwards

Promise me you'll always remember: You're braver than you believe, and stronger than you seem, and smarter than you think.

Christopher Robin to Pooh (by A. A. Milne)

Acknowledgments

We would like to express our appreciation to Judy Jones for her confidence that we could create a second edition of this volume better than the first. Thanks also to the many professionals worldwide willing to share their exceptional theories, research, and ideas. Finally, thanks always to Ms. Kathy Gardner for coordination of authors and exceptional preparation of this manuscript.

Robert B. Brooks
Sam Goldstein

Contents

Contributors

Bonnie Aberson, Psy.D., ABN. Joe Dimaggio Children's Hospital, Hollywood, FL, USA

Jennifer P. Agans, M.A. Tufts University, Medford, MA, USA

Miriam R. Arbeit, M.A. Tufts University, Medford, MA, USA

Robert B. Brooks, Ph.D. Department of Psychology, McLean Hospital and Harvard Medical School, Needham, MA, USA

Colleen Carr Department of Psychology, Arizona State University, Tempe, AZ, USA

Tara M. Chaplin, Ph.D. University of Pennsylvania, Pennsylvania, PA, USA

Paul A. Chase Tufts University, Medford, MA, USA

Wai Chen, Ph.D. Ashurst Hospital, Lyndhurst Road, Southampton, MRC SGD, Institute of Psychiatry, King's College London, UK

Jonathan Cohen, Ph.D. National School Climate Center, New York, NY, USA

Michael J. Coutts, M.Ed. University of Nebraska, Lincoln, NE, USA

David A. Crenshaw, Ph.D., ABPP. Children's Home of Poughkeepsie, Poughkeepsie, NY, USA

Kirby Deater-Deckard, Ph.D. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

Melissa DeVries Neurology, Learning and Behavior Center, Salt Lake City, UT, USA

Beth Doll, Ph.D. Educational Psychology, College of Education and Human Sciences, University of Nebraska, Lincoln, 238 Mabel, Lee Hall Lincoln, NE, USA

Maurice J. Elias, Ph.D. Department of Psychology, Rutgers, The State University of New Jersey, Piscataway, NJ, USA

Robert D. Felner University of Louisville, Louisville, KY, USA

Jennifer L. Fleming, Ph.D. Department of Psychology, Devereux Center for Resilient Children, Villanova, PA, USA

Jane E. Gillham, Ph.D. Department of Psychology, Swarthmore College, Swarthmore, PA, USA

Andrea Gold, Department of Psychology, Yale University, New Haven, CT, USA

Sam Goldstein, Ph.D. Neurology, Learning and Behavior Center, Salt Lake City, UT, USA

Shadi Houshyar, Ph.D. Yale University School of Medicine, New Haven, CT, USA

Sara R. Jaffee, Ph.D. Institute of Psychiatry, Kings College London, London, UK

Judith V. Jordan, Ph.D. Jean Baker Miller Training Institute and Harvard Medical School, Lexington, MA, USA

Howard B. Kaplan, Ph.D. Department of Sociology, Texas A&M University, College Station, TX, USA

Paul A. LeBuffe Devereux Center for Resilient Children, Villanova, PA, USA

Richard M. Lerner, Ph.D. Tufts University, Medford, MA, USA

Mary Mackrain, M.Ed. Devereux Center for Resilient Children, Villanova, PA, USA

Marc Mannes, Ph.D. Booz Allen Hamilton, Minneapolis, MN, USA

Ann S. Masten, Ph.D. University of Minnesota, Minneapolis, MN, USA

Nancy Mather, Ph.D. University of Arizona, Tucson, AZ, USA

Jack A. Naglieri, Ph.D. University of Virginia, Charlottesville, VA, USA

Angela J. Narayan University of Minnesota, Minneapolis, MN, USA

Nicole Ofiesh, Ph.D. Stanford University, Stanford, CA, USA

Sarah J. Parker, Ph.D. Department of Psychiatry, Columbia University, New York, NY, USA

Melissa Pearrow, M.S. University of Massachusetts Boston, Boston, MA, USA

Sandra Prince-Embury, M.S. The Resiliency Institute of Allenhurst, LLC, West Allenhurst, NJ, USA

Karen Reivich, Ph.D. University of Pennsylvania, Pennsylvania, PA, USA

Jazmin A. Reyes Department of Psychology, Rutgers, The State University of New Jersey, Piscataway, NJ, USA

Richard Rider, Ph.D. Bellin Psychiatric Center, Green Bay, WI, USA

Jennifer L. Rosenblatt, Ph.D. New York University Child Study Center, New York, NY, USA

Katherine M. Ross, B.S. Devereux Center for Resilient Children, Villanova, PA, USA

Irwin N. Sandler, Ph.D. Department of Psychology, Arizona State University, Tempe, AZ, USA

Peter C. Scales, Ph.D. Search Institute, Minneapolis, MN, USA

Kristina L. Schmid Tufts University, Medford, MA, USA

Martin E.P. Seligman, Ph.D. University of Pennsylvania, Pennsylvania, PA, USA

Arturo Sesma Jr., Ph.D. St. Catherine University, St. Paul, MN, USA

Valerie B. Shapiro, Ph.D. University of California, Berkeley, CA, USA

Susan M. Sheridan, Ph.D. University of Nebraskan, Lincoln, NE, USA

Myrna B. Shure, Ph.D. Drexel University, Philadelphia, PA, USA

Tara M. Sjuts, M.A. University of Nebraska, Lincoln, NE, USA

Jennifer Taub, Ph.D. Boston Chinatown Neighborhood Center, Inc., Boston, MA, USA

Eric Taylor, Ph.D. MRC SGDP, Institute of Psychiatry, King's College London, UK

Zhe Wang Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

Amy Eva Alberts Warren, Ph.D. Tufts University, Medford, MA, USA

Michelle B. Weiner Tufts University, Medford, MA, USA

Emmy E. Werner, Ph.D. University of California, Davis, CA, USA

Emily B. Winslow, Ph.D. Department of Psychology, Arizona State University, Tempe, AZ, USA

Sharlene A. Wolchik, Ph.D. Department of Psychology, Arizona State University, Tempe, AZ, USA

Margaret O'Dougherty Wright, Ph.D. Miami University, Oxford, OH, USA

Part I

Overview

Why Study Resilience?

1

Sam Goldstein and Robert B. Brooks

The study of resilience traces its roots back a scant 50 years. Early on, the field of study was not extensive and the number of researchers devoting their careers to the examination of this phenomenon was fairly small. The field, as Michael Rutter noted in 1987, reflected not so much a search for factual phenomena but "for the developmental and situational mechanisms involved in protective processes" (p. 2). The interest was and is not just on what factors insulate and protect, but how they went about exerting their influence. Resilience studies were reserved for high-risk populations with a particular focus on those youth demonstrating resilience or the ability to overcome the emotional, developmental, economic, and environmental challenges they faced growing up (Rutter, 1987).

The study of resilience has expanded significantly over the last 20 years. It is with a greater sense of urgency that resilience research has accelerated. There are a number of reasons for this phenomenon. First, as the technological complexity of the late twentieth century increased, the number of youth facing adversity and the number of adversities they faced appears to be increasing. More youth are at risk. Second, there has been an accelerated interest in not only understanding risk and protective factors and their operation, but in determining whether this information can be distilled into clinically relevant interventions (e.g., Fava & Tomba, 2009; Wolchik, Schenck, & Sandler, 2009) that may not only increase positive outcome for those youth facing risk, but also can be applied to the population of children in general in an effort to create, as Brooks and Goldstein (2001) point out, a "resilient mindset" in all youth.

The importance of such a mindset goes hand in hand with the perception that no child is immune from pressure in our current, fast-paced, stress-filled environment, an environment we have created to prepare children to become functional adults. Even children fortunate to not face significant adversity or trauma, or to be burdened by intense stress or anxiety, experience the pressures around them and the expectations placed upon them. Thus, the field has increasingly focused on identifying those variables that predict resilience in the face of adversity and developing models for effective application (Rutter, 2006). The belief then is that every child capable of developing a resilient mindset will be able to deal more effectively with stress and pressure, to cope with everyday challenges, to bounce back from disappointments, adversity, and trauma, to develop clear and realistic goals, to solve problems, to relate comfortably with others, and to treat oneself and others with respect.

S. Goldstein (✉)
Neurology, Learning and Behavior Center,
Salt Lake City, UT 84102, USA
e-mail: info@samgoldstein.com

R.B. Brooks
Department of Psychology, McLean Hospital
and Harvard Medical School, 60 Oak Knoll Terrace,
Needham, MA 02478, USA
e-mail: contact@drrobertbrooks.com

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A number of longitudinal studies over the past few decades have set out to develop an understanding of these processes, in particular the complex interaction of protective and risk factors with the goal of developing a model to apply this knowledge in clinical practice (Donnellan, Coner, McAdams, & Neppl, 2009; Garmezy, Masten, & Tellegen, 1984; Luthar, 1991; Rutter, Cox, Tupling, Berger, and Yule, 1975; Rutter and Quinton, 1984; Werner and Smith, 1982, 1992, 2001). These studies have made major contributions in two ways. First, they have identified resources across children's lives that predicted successful adjustment for those exposed to adversity, and second, they began the process of clarifying models of how these protective factors promote adaptation (Wyman, Sandler, Wolchik, and Nelson, 2000).

Whether these processes can be applied to all youth in anticipation of facing adversity remains to be demonstrated (Ungar, 2008). Masten (2001) suggests that the best recent evidence indicates that resilience processes are not only effective but can be applied, as demonstrated in the recovery to near-normal functioning found in children adopted away from institutional settings, characterized by deprivation. The positive outcome for many Romania adoptees appears to reflect this process (Beckett, et al., 2006; Kreppner, et al., 2007; Masten, 2001). Aames (1997), as cited in Rutter and the English and Romania Adoptees Study Team (1998), documents a significant degree of developmental catch up cognitively and physically in many of these children.

The process of creating a clinical psychology of resilience must begin with an understanding of the relevant variables and an appreciation and acknowledgement of certain key phenomena. The process of resilience first and foremost, for example, represents a biopsychosocial process. Such a process takes into account a range of biological, psychological, and social factors each with multidirectional influence in contributing to adequate functioning over time (Sameroff, 1995; Sroufe, 1997). Such a model must also begin with a basic foundation examining and appreciating the concept of wellness. In 1991 Emery Cowen, writing on the concept of wellness in children, suggested that a comprehensive approach to the promotion of wellness included four basic concepts: competence, resilience, social system modification, and empowerment. Cowen suggested that although wellness at the time continued to reflect an abstract concept, the pursuit of research in each of these four areas held promise in developing a scientific, reasoned, and reasonable model to ensure psychological health. In 1994, elaborating further on the concept of wellness, Cowen again emphasized the importance of resilience within the broader concept of wellness. For Cowen a wellness framework assumes the development of healthy personal environmental systems leading to the promotion of positive well-being and the reduction of dysfunction. A wellness framework emphasizes the interaction of the child in the family, academic setting, with adults outside of the home and with peers. Clearly, Cowen suggests a person–environmental interaction, one that ultimately predicts the strength and power of an individual's resilience in the face of adversity (Cowen, 1991).

Additionally, the absence of pathology does not necessarily equate with psychological wellness. This concept continues to represent a challenge for many mental health disciplines (Lorion, 2000). Mental health professionals are trained to collect data through a variety of means to measure symptoms. Such symptoms are equated with poor adaptation, inadequate adjustment, distress, and life problems. Emphasis on the negative equates with the perception that symptom relief will ultimately lead to positive long-term outcome. In fact, the accepted nosology of the mental health system is a model that reflects assessment of symptoms and severity packaged into what at this point are weakly factor-analyzed frameworks (American Psychiatric, 2000). Still unavailable, however, is a nosology and system to measure adaptation, stress hardiness, and the qualities necessary to deal successfully with and overcome adversity. Yet in clinical practice, it is increasingly recognized that it is these phenomena rather than relief of symptoms or the absence of certain risk factors that best predicts adaptation, stress hardiness, and positive adult adjustment.

As Cowen pointed out in 1994, mental health as a discipline must expand beyond symptom-driven treatment interventions if the tide of increasing

stress and mental health problems in children are to be averted. There must be an increased focus on ways of developing an understanding of those factors within individuals, in the immediate environment, and in the extended environment that insulate and prevent emotional and behavioral disorders. Understanding these phenomena are as important as developing "an understanding of the mechanisms and processes defining the etiological path by which disorders evolve and a theory of the solution, conceptual and empirically supported or supportable intervention that alters those mechanisms and processes in ways which normalize the underlying developmental trajectory" (Cowen, 1994, p. 172).

Meta-analytic studies of preventive intervention effectiveness have generated increasing evidence of the ability to reduce the numbers of youth with certain emotional and psychiatric problems through an understanding of the forces that shape life outcome. As Emmy Werner has pointed out, "beating the odds" is an attainable goal. Researchers have made an effort to address the complex biopsychosocial phenomena that influence the incidence and prevalence of emotional and behavioral problems in youth with an eye towards developing a "science of prevention" (Coie et al., 1993).

Resilience is suggested as but one of a number of constructs that protect or reduce vulnerability. Lösel, Bliesener, and Köferl (1989) suggested that other protective factors include hardiness, adaptation, adjustment, mastery, good fit between the child and environment, and buffering of the environment by important adults in the child's life. As Sameroff (2000) points out, a transactional view of development suggests that a combination of factors within the child and environment are mutually interactive over time. With appropriate responsive and adequate care taking and environment in which mutual adaptations can occur, the odds favor good outcome (Campbell, 2002). In such a model, development is assumed to be discontinuous, characterized by qualitative change and reorganization. Children are viewed as active organizers of their experiences and their interactions with others are viewed as bidirectional. Children's responses to adult behavior further influence that behavior. This model is consistent with artificial intelligence researcher, Gary Drescher's observation, suggesting that human beings are "choice-machines." That is, they act partly in response to genetically driven imperatives but generate reasons for acting as they do. These reasons are not hard wired but are responsive and modifiable to the environment and help guide future behavior (Dennett, 2003).

Finally, with a strong genetic influence, children consistently move towards attempting to develop normal homeostasis. In this model, a single potential traumatic experience would not be expected to lead to a chronically poor outcome. Instead it would be the cumulative, persistent, and pervasive presentation of stressors that promote risk. Within this type of conceptualization, risk falls within three dimensions: (1) external risk as opposed to protection, (2) vulnerability as opposed to invulnerability, and (3) lack of resilience as opposed to resilience (Greenbaum & Auerbach, 1992). Within such a model, a number of assumptions are made. These include: (1) early nurturing and age-relevant stimulation that provides protection by decreasing vulnerability (Bakermans-Kranenburg, van Ijzendoor, Pijlman, Mesman, & Juffer, 2008) and (2) risk-protection factors that are interactive. That is, factors within the child will interact and augment factors within the environment. This is likely true for risk factors as well; (3) vulnerability can be reduced and resilience increased by the introduction of additional protective factors; (4) risk and protective factors interact with a number of variables such as length of exposure, time of exposure, contributing to outcome; and (5) limited exposure to risk may in fact increase but not guarantee stress hardiness. Within these theoretical models, all of which will be discussed and reviewed in this text, the concept of resilience appears to play a major role. Within a wellness model, therefore, it is deserving of an identity and field of study.

The concept of resilience is fairly straightforward if one accepts the possibility of developing an understanding of the means by which children develop well emotionally, behaviorally,

academically, and interpersonally either in the face of risk and adversity, or not. Such a model would offer valuable insight into those qualities that likely insulate and protect in the face of wide and varied types of adversities, including children experiencing medical problems (Brown and Harris, 1989), family risks (Beardslee, 1989; Beardslee & Podorefsky, 1988; Hammen, 1997; Worsham, Compas, & Ey, 1997), psychological problems (Hammen, 1997; Hauser, Allen, & Golden, 2006), divorce (Sandler, Tein, & West, 1994), loss of a parent (Lutzke, Ayers, Sandler, & Barr, 1999), as well as school problems (Skinner & Wellborn, 1994). Competent, appropriate parenting, for example, that which provides a democratic or authoritative model, parental availability, monitoring, and support, are powerful protective factors reducing the risk of antisocial behavior (Dubow, Edwards, & Ippolito, 1997; Masten et al., 1999). In fact, it appears to be the case that youth functioning well in adulthood, regardless of whether they faced adversity or not, may share many of the same characteristics in regards to stress hardiness, communication skills, problem solving, self-discipline, and connections to others. Though the earliest studies of resilience suggested the role of "exceptional characteristics" within the child that led to "invulnerability" (Garmezy & Nuechterlein, 1972), it may well be that resilience reflects very ordinary development processes to explain adaptation (Masten, 2001; Masten & Coatsworth, 1998). Though, as noted, a focus on symptoms and symptom relief, that is one assessing risk alone, may be satisfactory for identification of immediate needs and diagnoses within a psychopathology model, such data are necessary though not sufficient to improve future functioning. It has been well documented that not all children facing significant risk and adversity develop serious adolescent and adult psychiatric, lifestyle, and academic problems. Risk factors also do not appear to be specific to particular outcomes but relate to more broad developmental phenomena. It is likely, as noted, that there is a complex, multidimensional interaction between risk factors, biological functioning, environmental issues, and protective factors that combines to predict outcome (e.g., Kim-Cohen & Gold, 2009).

Within this framework, resilience can be defined as a child's achievement of positive developmental outcomes and avoidance of maladaptive outcomes under adverse conditions (Rutter, 2006; Wyman et al., 1999). Within a clinical framework, a resilient mindset may be defined as the product of providing children with opportunities to develop the skills necessary to fare well in the face of adversity that may or may not lie in the path to adulthood for that individual. The study of resilience has overturned many negative assumptions in deficit-focused models about "the development of children growing up under the threat of disadvantage and adversity" (Masten, 2001, p. 227).

Finally, within the broader framework, the incorporation of resilience research into clinical practice may be based on four key assumptions as described by Benard, Burgoa, and Whealdon (1994). First, resilience helps to build communities that support human development based upon caring relationships. Second, resilience meets youth's needs for belonging and stability. Third, resilience is supported in the lives of practitioners as well. Fourth, resilience validates the wisdom of the heart or an intuitive, innate set of practices to guide clinical intervention.

A Cascade of Risk

Though children by their very nature have been vulnerable to a variety of risks throughout recorded history, perhaps advanced technological societies create new and different risks for children. Poverty, for example, has likely been a risk factor for children throughout history, yet the manner in which it impacts children may be different as times change. Beginning with the work of Pavenstedt (1965), examining children reared in poverty and well articulated by Garmezy and Nuechterlein (1972), researchers have questioned the processes by which individuals at risk for psychiatric conditions might be buffered or insulated developing these conditions or experiencing them to a greater degree of severity should they

present. Epstein (1979) wrote of children exposed to trauma in the Holocaust, examining the variables that helped some survive. In many of these studies, positive, yet unexpected outcomes were considered interesting anomalies but not necessarily important data. Over time came growing recognition and acceptance that the ability to remain competent under adversity is not a random occurrence but one that can be investigated, understood, and instilled in others (Garmezy & Rutter, 1983).

Researchers have identified two distinct types of risk factors facing youth. The first kind reflects the at-risk status of the general population such as a child raised in a family with a depressed mother or absent father. The second kind of risk includes those factors that distinguish more or less positive outcomes among either groups with specified risks or those with seemingly little risk. In every case, each risk factor must be studied, understood, and then placed within a context of other risk and protective variables. It is for this reason that the scientific research of resilience is so complex. This too is perhaps a consequence of a complex, technologically advanced culture. A quick review of multiple risk statistics makes a strong case for developing a clinical psychology of resilience.

According to the Center for Disease Control (2002), at least 12% of students have considered suicide, with suicide being the third leading cause of death between the ages of 15 and 24, rare but increasing between the ages of 10 and 14. Three million teenagers struggle at any given time with depression. Only one-third receive mental health services.

According to the Center for Disease Control and Prevention and the Substance Abuse and Mental Health Services Administration (2002), one half of motor vehicle accidents in teens are associated with alcohol and drugs. Thirty percent of adolescent suicides are associated with alcohol and drugs. Further, children and teens who abuse alcohol and drugs engage in a variety of risk-taking behaviors at a significantly higher rate than the general population.

According to the National Center for Children of Poverty (2002), 37% of children in the United States live in low-income families. This comprises 27 million children. Forty percent of children under the age of six live in homes with an income below $27,000 per year for a family of four. Sixteen percent of children or over 11 million live in homes that are below the federal poverty level. Six percent of children or five million live in extreme poverty. Finally, the poverty rate is highest among African Americans (30%) and Latinos (28%).

According to the Center for Disease Control and Prevention National Household Survey of Drug Abuse, homicide is the second-leading cause of death for all 15–24-year-olds. It is the leading cause of death for adolescent African Americans and the second-leading cause of death for Hispanic youth. More than 400,000 youth in 2000 between the ages of 10 and 19 were injured as a result of violence. Over 800,000 children were documented victims of child abuse nationwide.

According to the Children's Defense Fund (2002), an American child was reported abused and neglected every 11 s. Over a half million children in the United States are in foster care. An American child is born without health insurance every minute. Millions of children are reported to lack safe, affordable, quality child care and early childhood education while their parents are at work. Seven and one-half million children are at home alone without supervision after school and almost 80% of children living at or below the poverty level are in working households (U.S. Census, 2000).

The Committee for Children at the National School Safety Center (2002) reports that one out of every seven children reports being bullied at school. In an average classroom there are at least three to four victims or bullies. Many victims report self-imposed isolation in response to bullying.

According to Children's Defense (2002) and the Youth Risk Behavior Surveillance System at the Centers for Disease Control (2002), births to girls ages 15–19 have steadily declined in the past decade, but sexually transmitted diseases among teenagers have increased. These statistics, only a sample of an emerging trend, make a strong case of the need to develop a clinical psychology of resilience.

Towards Defining a Clinical Psychology of Resilience

Within the materials sciences, resilience is defined as the ability of a material to resume its original shape or position after being spent, stretched, or compressed. In part resilience within this framework is defined by those properties that contribute to the speed and amount of possible recovery after exposure to stress. As previously discussed, the initial application of resilience into the clinical field focused on the absence of clinical diagnoses or psychiatric problems over time in the face of stress and adversity (Radke-Yarrow & Brown, 1993). Rutter (1990) suggested that within the clinical realm resilience and vulnerability may be at the opposite ends of a continuum, reflecting susceptibility to adverse consequences at one end and neutral or positive consequences upon exposure to risks at the others. This concept was further echoed by Anthony (1987). As Masten (2001) notes, "Early images of resilience in both scholarly work and mass media implied there was something remarkable or special about these children, often described by words such as invulnerable or invincible." One of the first popular press articles dealing with resilience appeared in the Washington Post on March 7, 1976. The headline read, "Troubles a Bubble for Some Kids." Thus, within the clinical realm, the idea of resilience reflected a process that was not necessarily facilitated through traditional psychotherapeutic or related intervention but rather was reflective of children who faced great adversity and in some internal way were special or remarkable, possessing extraordinary strength to overcome adversity. The belief was that these internalized qualities were somehow absent in others. Yet as Masten notes, resilience may be a common phenomenon resulting in most cases from the operation of "basic human adaptational systems." When these operate, development is successful even in the face of adversity. If these systems are impaired, children struggle.

Masten and Coatsworth (1998) suggest that resilience within a clinical realm requires two major judgments. The first addresses threat. Individuals are not considered resilient if they have not faced and overcome significant adversity considered to impair normal development. The second assumption involves an inference about how one assesses good or adequate outcome in the face of adversity. This continues to be a complex issue that is just now being addressed empirically (Masten, 1999). It continues to be the case that most clinical practitioners define resilience on the basis of a child meeting the major requirements of childhood successfully (e.g., school, friends, family) despite facing significant life stress. Yet one must also consider that a child facing multiple developmental adversities who does not develop significant psychopathology but who may not demonstrate academic or social achievements may be resilient as well (Conrad & Hammen, 1993; Tiet et al., 1998).

Bronfenbrenner and Crouter (1983) describe a functional model for understanding the process of resilience that may lend itself well to building a foundation for the clinical psychology of resilience. Their model contains four domains of influence and two transactional points between domains. The four domains reflect: (1) the acute stressor or challenge, (2) the environmental context, (3) an individual's characteristics, and (4) the outcome. Points of interaction reflect the confluence between the environment and the individual as well as the individual and choice of outcome. These authors raise questions as to the exact mechanisms by which stressors or challenges interact with the environment, the internal set of characteristics, both genetic and acquired, of the individual, and the short-term processes individuals use to cope with stress and adversity. Interestingly, these processes most likely reflect skills learned by the individual through gradual exposure to increasing challenges or stressors. This "stress inoculation model" (Richardson, Neiger, Jensen, & Kumpfer, 1990) reflects Brooks and Goldstein (2001, 2003) concept of building stress hardiness by helping children develop a "resilient mindset."

Within clinical populations, three types of protective factors emerge as recurrent themes in most studies (Werner & Johnson, 1999). The first reflects dispositional attributes of the individual that elicit predominantly positive responses from

the environment (e.g., easy temperament of the child within a family facing significant stress). The second reflects socialization practices within the family that encourage trust, autonomy, initiative, and connections to others. The third reflects the external support systems in the neighborhood and community that reinforce self-esteem and self-efficacy. Werner and Smith (1993) point out from their longitudinal work the large number of variables, such as age, birth order, ages of siblings, family size, and gender of the child that must be taken into account when assessing the relative vulnerability or resilience of an individual growing up in a family context of psychopathology or other risk. Such protective factors "moderate against the effects of a stressful or stress situation so that the individual is able to adapt more successfully than they would have had the protective factor not been present" (Conrad & Hammen, 1993, p. 594). Protective factors thus represent the opposite pole of vulnerability factors.

As discussed, the concept of resilience has not traditionally encompassed the potential of individuals to survive risks should they arise. Anthony (1987), Brooks and Goldstein (2001), and Rutter (2006) suggest that some individuals may appear resilient because they have not faced significant vulnerability, while others can be assessed for their potential to be resilient were they to face adversity. Defining risks and protective factors is not a simple process. They are likely variable in their presentation and in their impact on specific individuals. Cicchetti and Garmezy (1993) point out that it is difficult at times to distinguish between factors that place an individual at risk and factors that happen to distinguish between good or poor outcome but have no clear causal significance. These authors caution, for example, that "a child with a mother who has been depressed will not necessarily experience poor quality of care giving" (p. 500). Competent youth differ from those lacking competence, regardless of the level of adversity faced. Thus, even though resilient and maladaptive groups may experience similar life histories of severe negative life experience, outcome for those who are resilient appears more similar to those who have not faced adversity (Masten et al., 1999).

Youth demonstrating high competence despite facing strong adversity, when compared to youth equally competent facing low adversity, as well as groups of youth with low competence facing equal adversity, reflect this process. Competent, low adversity as well as resilient youth appear to possess average or better academic outcome, conduct, and social histories. They appear to possess very similar psychosocial resources, including better intellectual functioning, parent mental health, parental availability, and more positive self-concepts. Though a heatedly debated phenomenon, strong intellect has been found to be a protective factor (Hernstein & Murray, 1995). Intellectual aptitude appears to represent an important protective factor against the development of conduct problems for children growing up in highly disadvantaged settings or with high exposure to adverse life events (Masten et al., 1999; White, Moffitt, & Silva, 1989). However, there is no consensus on what defines intellectual ability (Masten, 2001). A strong performance on tests of intellectual functioning could reflect related neuropsychological factors, such as attention, memory, executive functioning, or, for that matter, motivation. Strong performance on intellectual and many of which are highly loaded on achievement tests, are also contributed to by the quality of the child-rearing environment.

A clinical psychology of resilience must also be capable of defining and understanding the multiple pathways by which outcome is achieved. Cicchetti and Rogosch (1996) describe this process through the concepts of equifinality and multifinality. Children may reach the same end point, in this case pathology or survival by different routes. Children with apparently similar risks and histories can have different outcomes. As Rutter (1994) pointed out in 1994, outcome is determined in part by the relative balance and interaction of risk and protective factors. The more risk factors present, the more likely the outcome will be adverse (Greenberg, Lengua, Coie, & Pinderhughes, 1999). It remains unclear, however, whether risk factors are equally potent in their adversity or protective factors equally stress resistant in their presentation (Shaw & Vondra, 1993). We have yet to develop a science