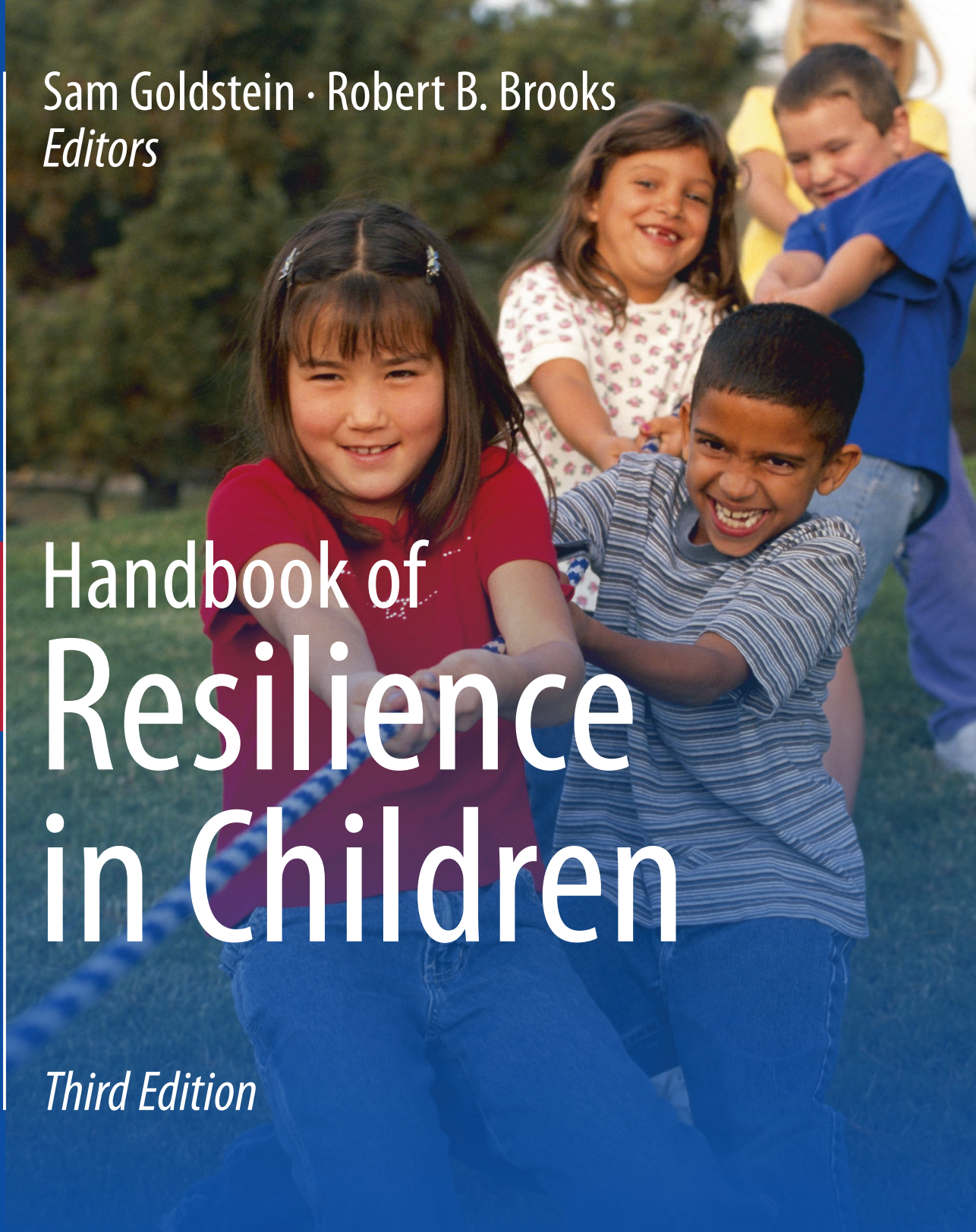
Sam Goldstein · Robert B. Brooks
Editors



Handbook of Resilience in Children

Third Edition

Springer

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This volume is dedicated to my grandchildren—Avery, Isaac, Tate, Axel, and Shiloh. It is my greatest hope that we can provide their generation with the tools needed to make a better world and a brighter future.

Sam Goldstein

Resilience is rooted in the positive relationships we experience throughout our lives. I have especially drawn strength and love from my parents Eva and David, my wife Marilyn, my sons Rich and Doug, my daughter-in-law Suzanne, and my grandchildren Maya, Teddy, Sophie, and Lyla. I wish to thank them all for the many ways in which they have enriched my life.

Robert B. Brooks

We dedicate this volume to the memory of two pioneers in the field of child psychology, Emmy Werner and Myrna Shure. In a time when others sought to find liabilities, their pioneering work and brilliant ideas changed the field of child psychology.

Among Dr. Werner's most significant findings was that one third of all high-risk children displayed resilience and developed into caring, competent and confident adults despite their problematic developmental histories. She identified a number of protective factors in the lives of these resilient individuals which helped reduce the adversity of risk factors at critical periods in their development. Dr. Werner's findings permeate every aspect of child development today.

As this book goes to press our dear friend, colleague and contributor to all 3 Editions of this volume, Myrna Shure, has recently passed away. Myrna taught us the power of words to

change mindsets and behavior, but most importantly to teach children to solve problems by thinking differently rather than through the administration of punishments and rewards. Her contribution to the field of child development was monumental. Her legacy will live on forever.

Their wit, humor and insight will be missed but never forgotten.

Sam Goldstein
Robert B. Brooks

Also By These Authors

Raising Resilient Children (2001)
Seven Steps to Help Your Child Worry Less (with Kristy Hagar) (2002)
Parenting Resilient Children Parent Training Manual (2002)
Nurturing Resilience in Our Children (2003)
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Preface

Twenty years ago, following the success of our book for parents, *Raising Resilient Children* (2001), we realized that there was a large volume of scientific literature that for the most part had been completed as an academic exercise rather than in an effort to create a new and different way of addressing the many mental health and life challenges faced by children on a global level. The United States, and for that matter, the entire world, was still in shock from the terrible tragedy of the terrorist attacks in 2001. The last 20 years have been perhaps the most stressful in regard to the worldwide impact of events that in the past were often geographic rather than international phenomena. As examples, in 2003 we invaded Iraq under the pretext of finding weapons of mass destruction which were never identified. This invasion was not agreed to by many countries, including France, Germany, Russia, and China, which set the stage for further conflicts between countries. On March 11, 2004, the terrorist group Al Qaeda committed the most serious terrorist attack in European history. Four commuter trains exploded on the way to Madrid leading to 200 deaths. In 2011, a magnitude 9 earthquake in Japan led to a tsunami that hit the Fukushima nuclear plan resulting in 300 hydrogen explosions and the release of radioactive contamination. In 2020, the COVID-19 pandemic led to worldwide changes and stresses that were unanticipated and unimagined by most people and even experts worldwide. In near real time, as these events unfolded, they were witnessed by people on every continent.

In addition, as you will read in the opening chapter of this third edition volume, in the last 20 years, the rates of medical and mental health problems in youth have continued to rise with a dramatic increase for individuals of all ages in just the last 2 years. Rates of anxiety and depression among US adults were about four times higher between April 2020 and August 2021 than they were in 2019. Some of the sharpest increases were among males, Asian Americans, young adults, and parents with children living at home. Between January and December 2019, the average monthly percentages of US adults reporting some symptoms of anxiety ranged between 7% and 8%. Between August 2020 and August 2021, that number increased to between 28% and 37%. Concomitantly, between January and December 2019, the rates of depression monthly among adults ranged between 5.9% and 7.5%. Between April 2020 and August 2021, that number increased to between 20% and 31% (Terlizzi & Schiller, 2021).

In our opening chapter, we note that these numbers for adults are reflected in children as well. These data raise increasing concerns about our species' capacity to cope effectively with stress. That is, to behave in a resilient manner in the presence of adversity. No longer is the study of resilience an academic subject. No longer is it reserved for just those facing adversity since on any given day in the world, it would appear that all of us to a greater or lesser extent are likely to experience stress and adversity. The questions we have asked in our two previous volumes have become even more important in the current world climate. As we have noted in the past, comparing individuals who overcome obstacles and function well with those who do not invites several intriguing questions. What exactly do those who manage to function well under adversity do that enables them to succeed? How do they think? What kinds of experiences might they have had that are absent in the lives of those who are unsuccessful? Are some of their experiences unique to survival in the face of adversity? Can they be manualized and reproduced? How much of their ability to cope over time can be predicted by genetics, parenting, early childhood experiences, education, mentoring, temperament, and general mental health in a world in which stress and adversity have increased exponentially since the publication of the second edition of this volume? The answers to these and related questions are no longer just important, they are essential. This third edition volume reflects our continued efforts to address these questions.

By way of history, it is worth revisiting that we met by chance at a national conference nearly 30 years ago. One of us was discussing childhood disorders and learning disabilities, the other the qualities of personality and thinking that help children at risk overcome adversity. After 50 combined years of clinical practice at the time, we agreed that the best predictors of children's functional outcome as they transitioned into adulthood may not lie in the relief of their symptoms or fixing their diagnoses but rather in an understanding, appreciation, and nurturance of their strengths and assets.

In the past 30 years, our initial connection has evolved into a very close professional and personal relationship. This volume represents our 15th joint-authored or co-edited trade or science text. We have spent countless hours elaborating ideas about the importance of a strength-based approach in our work and in our lives. Throughout our collaboration, we have come to realize the importance of thinking, feeling, and behaving in certain ways as a means of successfully and happily negotiating life. We have come to appreciate the biopsychosocial nature of this process. We began by defining a resilient mindset, which is associated with the ability to cope with and overcome adversity. We now believe that such a mindset 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 upon those who confronted and overcame adversity has found universal appeal as researchers and mental health professionals examine how the qualities of resilience can be applied to all individuals regardless of life challenges or age. We have replaced the medical model with a resilience model. We have developed an appreciation that learning to cope is the first step in functioning well, not just in the presence of adversity, but for all youth to transition successfully into adult life. We

understand that biology is not destiny despite the fact that it affects probability. We are aware that our genes determine the borders of the playing fields of our lives. We also recognize, however, that experience shapes how and in what matter these genes express themselves and ultimately where our lives take us in what turns out to be a vast field of possibilities.

We have continued to elaborate upon our initial work related to resilience. After authoring multiple trade and professional texts on resilience, we came to the realization that knowing what to do was not the equivalent of doing what you know. That is, to act and behave in a resilient manner required the self-discipline to do so. While we had positioned self-discipline as an important component of a resilient mindset, we came to appreciate that it deserved special attention. This prompted us to focus on describing a framework and strategies to help parents and educators guide children to self-regulate (Brooks & Goldstein, 2009). Recently, our thinking has evolved to identify seven instincts that we believe significantly contribute to who we are and how we function. We have placed these seven instincts under the concept of tenacity (Goldstein & Brooks, 2021). We view the seven instincts of tenacity as framing our beliefs and providing the fuel for our emotions and thoughts, and by doing so help us be resilient and achieve self-discipline.

We view these three components—resilience, self-discipline, and tenacity—as comprising the essential triad of human development. We have proposed that an understanding of this triad offers not only a different way of raising children and managing ourselves but also a more effective way. We have come to appreciate that children come into this world with different temperaments and other inborn attributes. No two are exactly alike. However, all are genetically endowed with instincts, not like the fixed behaviors of a bird building a nest or a fish swimming upstream, but rather ever-developing instincts that define our capacity to be fair, altruistic, responsible, empathic, optimistic, motivated, and effective problem solvers.

It is our charge as shepherds of the next generation to continue learning how to best prepare children for an adult world few of us can predict or imagine. The world has changed more in the last 17 years since the publication of the first volume of this work than perhaps in the previous 100 years or more. Accompanying these rapid advances have been equally developing if not greater adversities, many of our own making. The evolution of technology races ahead at break neck speeds. The potential for future pandemics seems to loom at every turn. Nonetheless, we are cautiously optimistic that as our understanding of our place in the universe advances, we will find the means to forge a promising, though not likely perfect, path into the future for ourselves and our children.

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

References

Brooks, R., & Goldstein, S. (2001). *Raising resilient children.* McGraw Hill.
Brooks. R. & Goldstein, S. (2009). *Raising a self-disciplined child.* McGraw Hill.
Goldstein, S., & Brooks, R. (2021). *Tenacity in children*. Springer Nature.
Terlizzi, E.P., & Schiller, J.S. (2021). *Estimates of mental health symptomatology by month. An interview: United States, 2019*. National Center for Health Statistics. www.CDC.gov/nchs/covid19/pulse/mental-health.hdm

Our greatest glory is not in never falling, but in rising every time we fall.

Confucius

Do not judge me by my success, judge me by how many times I fell down and got back up again.

Nelson Mandela

If you want to help vulnerable youngsters become more resilient, we need to decrease their exposure to potent risk factors and increase their competencies and self-esteem, as well as the sources of support they can draw upon.

Emmy Werner

We need to get over the questions that focus on the past and on the pain 'why did this happen to me'—and ask instead the question which open doors to the future: 'Now that this has happened, what shall I do about it?'

Harold Kushner

Acknowledgments

We would like to once again express our appreciation to our editor, Judy Jones, for her confidence in and support of our ideas for over 20 years and many volumes. It is rare that a clinical volume appears in a second, let alone third, edition. A special thank you also to the many professionals who began this journey with us in 2005 and have contributed three chapters, updated in our second and third editions. We also thank the many professionals worldwide contributing for the first time to this third edition. The breath and scope of the knowledge contained in these three volumes is truly remarkable. Thanks also to our editorial assistant Kathy Gardner, for guiding the preparation of our 15th joint volume.

Sam Goldstein
Robert B. Brooks

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About the Editors

Sam Goldstein obtained his PhD from the School Psychology at the University of Utah and is licensed as psychologist and certified school psychologist in the state of Utah. He is also board certified as pediatric neuropsychologist and listed in the Council for the National Register of Health Service Providers in Psychology. He is a fellow of the American Psychological Association and the National Academy of Neuropsychology. He is an adjunct assistant professor in the Department of Psychiatry, University of Utah School of Medicine. He has authored, co-edited, or co-authored over 50 clinical and trade publications, three dozen chapters, nearly three dozen peer-reviewed scientific articles, and 8 psychological and neuropsychological tests. Since 1980, he has served as clinical director of The Neurology, Learning and Behavior Center in Salt Lake City, Utah.

Robert B. Brooks obtained his PhD in clinical psychology from Clark University in Worcester, MA, and completed a postdoctoral fellowship at the University of Colorado Medical School in Denver. He is board certified in clinical psychology and listed in the Council for the National Register of Health Service Providers in Psychology. He is currently on the faculty of Harvard Medical School (part-time) and is Former Director of the Department of Psychology at McLean Hospital, a private psychiatric hospital. He has authored, co-edited, or co-authored 19 books and, in addition, authored or co-authored almost three dozen chapters and more than three dozen peer-reviewed scientific articles. He has received numerous awards for his work, including most recently the Mental Health Humanitarian Award from William James College in Massachusetts for his contributions as a clinician, educator, and author.The *Handbook of Resilience in Children* is their 15th co-written/co-edited volume.

Part I

Overview

1 The Continuing Study of Resilience in Times of a Pandemic: This Is Why We Study Childhood Resilience

Sam Goldstein and Robert B. Brooks

The noun "resilience," meaning "the act of rebounding," was first used in the 1620s. It was derived from "resiliens," the present participle of the Latin "resilire," meaning "to recoil or rebound." In the 1640s, the term "resilient" was used to mean "springing back." Yet, the study of resilience as a construct denoting the ability to function well over time and rebound from acute or chronic adversity traces its roots back to not quite 70 years. Perhaps, best defined by Ann Masten in 2018, resilience is described as "the capacity of a system to adapt successfully to significant challenges that threaten its function, viability, or development" (p. 2) (Masten, 2018). Yet, nearly 20 years earlier, in 1999, Glantz and Slobada observed, "There is no consensus on the referent of the term, standards for its application, or agreement on its role in explanation, models, and theories" (p. 2).

We would argue that even with the explosion of recent research in resilience, this is still true today. A Google Scholar search of "resilience" since the publication of the second edition of this volume in 2013 yields more than 900,000 links! Early on, this field of study was not extensive and the number of researchers devoting their careers to the examination of this phenomenon was fairly small. This 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 on 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. The study of resilience has expanded significantly over the last 30 years. It has been the impetus for an explosion of empirical research and has played a central role in the reconceptualization of the biopsychosocial forces of human development. Yet, in the view of some, this has left matters in greater disarray.

Thus, it was with a greater sense of urgency that resilience research accelerated well before the world was beset by a worldwide pandemic. 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 also appeared to be increasing. More youth are at risk today than ever before. Second, there has been an accelerated interest not

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only in understanding the risk and protective factors and their operation but also in determining whether this information can be distilled into clinically relevant interventions (e.g., Underwood, 2018; Shean, 2015; Fava & Tomba, 2009; Wolchik et al., 2009) that may not only increase positive outcomes for those youth facing risks 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 that ironically we have created to prepare children to become functional adults. Even children fortunate enough 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, this field has increasingly focused on identifying those variables that predict resilience in the face of adversity and on developing models for effective application (Rutter, 2006). The belief then is that every child is capable of developing a resilient mindset and will be able to deal 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.

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 between protective and risk factors, with the goal of developing a model to apply this knowledge to clinical practice (Goldstein & Herzberg, 2018; Tabibnia & Redecki, 2018; Sarkar & Fletcher, 2017; Donnellan et al., 2009; Garmezy et al., 1984; Luthar, 1991; Rutter et al., 1975; Rutter & Quinton, 1984; Werner & Smith, 1982, 1992, 2001). These studies and many others 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 (Ellis et al., 2017; Wyman et al., 2000).

Whether these processes can be applied to all youth in anticipation of facing adversity remains to be fully demonstrated (Vanderbilt-Adriance & Shaw, 2008; Ungar, 2008; Joyce et al., 2018). Masten (2001) suggests that the convincing evidence that resilience processes are in fact not only effective but can also be applied is demonstrated in the recovery to near-normal functioning found in children adopted away from institutional settings characterized by chronic deprivation. The positive outcome for many Romania adoptees appears to reflect this process (Groza et al., 2017; Beckett et al., 2006; Kreppner et al., 2007; Masten, 2001). Aames (1997), as cited in Rutter's English and Romania Adoptees study team (1998), documents a significant degree of developmental catchup cognitively and physically in many of these children.

Resilience in Times of Pandemic

The COVID-19 pandemic is reported to be causing serious mental health consequences.

(Stark et al., 2020; Berawi, 2020; Elcheroth & Drury, 2020). As a large portion of the population is vaccinated, there is an emerging shift from coping with the immediate health impact of COVID-19 to appreciation of an illness that can be described as a generation-defining experience. Most mental disorders begin in childhood. Prior studies suggest that experiencing mass disasters and economic recession is associated with an increased risk for mental illness (Golberstein et al., 2020; Sprang & Silman, 2013). Although children have a relatively low risk of severe COVID-19 complications (CDC, 2020), the mental health impact of the pandemic experience has proven to be a significant challenge (Qiu et al., 2020; Konstantopoulou & Raikou, 2020; Jiao et al., 2020).

Although environmental stressors will increase children's susceptibility to mental health problems, multiple protective factors offer oppor-

tunities to promote children's resilience, that is, the capacity for positive adaptation in the face of adversity. A consensus increasingly agrees that resilience as a process (Rosenberg et al., 2021) is a function of individual, familial, and systemic factors (Masten, 2001). Factors such as anxious temperament (e.g., Marshall et al. (2010)), early mental health concerns (Copeland et al., 2009), medical conditions (e.g., CDC, 2020), and a history of trauma (Nishith et al., 2000) are risk factors for developing mental disorders. In contrast, caregiving characterized by responsiveness, warmth, structure, and monitoring confers protection (Southwick et al., 2014). Social support (e.g., caring relationships with adults and peers) has also been shown to be a protective factor for children and families in the context of mass disasters and pandemics (Earls et al., 2008; Pfefferbaum et al., 2015). Safe neighborhoods and access to sufficient social services and healthcare are important system-level protective factors in youth as well (Ellis et al., 2017; Jenson & Fraser, 2015; Masten et al., 2003).

Pandemic-specific stressors may undermine proven protective factors. In addition to the stress of safeguarding familial health from the coronavirus, stay-at-home orders and public health recommendations for physical distancing have reduced access to a range of support systems for children and families. The increased demands on parents and the corresponding rise in parenting stress has also been apparent. Supporting children's academic goals through online distance learning may have kept children "in school" but at an increased burden considering the significant time that children spent in front of screens. Reduced access to childcare (e.g., through kinship care or daycare) and coping with potential employment-related transitions or losses are also some of the immediate concerns for parents. Schools, sports teams, after-school programs, and faith-based organizations provide children with structure and opportunities for mastery (Durlak & Weissberg, 2007). Although most children may not suffer from deleterious psychological outcomes because of a temporary loss of access to these opportunities, the impact of prolonged uncertainty and lack of socialization opportunities, skill-based learning, social support, and reduced physical activity may increase children's emotional distress and parenting challenges. In addition, with nearly 600,000 fatalities to date in the United States alone, many families are grieving the loss of their loved ones, often without being able to engage in traditional end-of-life rituals (e.g., in-person funerals) or gain access to typical support systems.

The World Health Organization has affirmed that mental health support is a priority as efforts are made to overcome the pandemic. In light of this alert, in this volume, we reaffirm a commitment to a positive psychology approach focused on prevention through strength and asset building. The challenges posed by this pandemic have in many ways created a new condition in comparison with what is known in clinical practice and with what is included in the classification of mental disorders. It is in fact not a disorder in and of itself. It is not similar to the stress encountered as a result of extreme events such as natural disaster traumas. The stress caused by the pandemic is, at the same time, an individual and collective stress. It is persistent, provoked by stressful, unpredictable circumstances that can evolve in many ways and that can develop throughout different phases. Starting with an *acute stress* (warning), it leads to a consequent *chronic stress*, characterized by the effort to adapt to the mortal risk of infection and which results in both a psychosocial and an economic effort to resist the lockdown situation first, and, consequently, in the effort to manage damages before and after the Pandemic (Biondi & Iannitelli, 2020). This ongoing stress condition, which not only hits the present but also disrupts the future, may create entirely new forms of clinical conditions (Walsh, 2020).

Creating a Clinical Psychology of Resilience

Keeping this foundation in mind, the process of creating a systemic, clinical psychology of resilience must begin with an understanding of the relevant variables, an appreciation and

acknowledgment of certain key phenomena. The process of resilience, first and foremost, for example, represents a biopsychosocial phenomenon. Such a process considers a range of biological, psychological, and social factors each with multidirectional influence on 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 suggested a person–environment interaction, one that ultimately predicts the strength and power of an individual's resilience in the face of adversity.

Additionally, the absence of pathology does not necessarily equate with psychological wellness. This concept continues to present 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 outcomes. 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 Association, 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 predict adaptation, stress hardiness, and positive adult adjustment (Kieling et al., 2011; Catalano et al., 2012).

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 is to be averted. There must be an increased focus on ways of developing an understanding of those factors within individuals, both in the immediate environment and in the extended environment, which insulate from and prevent emotional and behavioral disorders. Understanding these phenomena is 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" (p. 172).

Meta-analytical studies of preventive intervention effectiveness have generated increasing evidence of the ability to reduce the number of youth with certain emotional and psychiatric problems through an understanding of the forces that shape life outcomes. 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 toward developing a "science of prevention" (August & Gewirtz, 2019; Coie et al., 1993).

Resilience is suggested as a construct that protects or reduces vulnerability. Lösel et al. (1989) suggested that a myriad of protective factors comprising this construct include hardiness,

adaptation, adjustment, mastery, a 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 outcomes (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 the 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 hardwired but are responsive and modifiable to the environment and help guide future behavior (Dennett, 2003). This flexible gene–environment relationship is reflected in the work of Goldstein and Brooks (2021). They propose that the lengthy transition from childhood to adulthood must be built on a foundation of seven instincts that they place under the umbrella of tenacity. They posit that we must reframe how we parent, educate, and socialize children if they are to be prepared for a future that few, if any, of us can imagine. Over tens of thousands of years, these instincts, present from birth, have provided the human species with untold advantages but at least one unexpected downside. We have failed to sufficiently appreciate the power of many human instincts in shaping a child's development and adult life. Whether or not we have realized it, we have until recently, parented and educated from the position that children are tabula rasa or blank slates waiting to be infused with knowledge.

Finally, with a strong genetic influence, children consistently move toward 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 promotes risks. Within this type of conceptualization, risks fall within three dimensions: (1) external risks 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 et al., 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 and time of exposure, thus contributing to the outcome and (5) limited exposure to risks may in fact increase but not guarantee stress hardiness. Within these theoretical models, all of which will be discussed and reviewed in this chapter, the concept of resilience appears to play a major role. Within a wellness model, therefore, it is deserving of an identity and a 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 either develop well emotionally, behaviorally, academically, and interpersonally in the face of risk and adversity or do not. Such a model would offer valuable insights into those qualities that likely insulate and protect in the presence of wide and varied types of adversities, including children experiencing medical problems (Brown & Harris, 1989), family risks (Beardslee, 1989; Beardslee & Podorefsky, 1988; Hammen, 1997; Worsham et al., 1997), psychological problems (Hammen, 1997; Hauser et al., 2006), divorce (Sandler et al., 1994), loss of a parent (Lutzke et al., 1999), and school problems (Skinner & Wellborn, 1994). Competent, appropriate parenting, for example, which provides a democratic or authoritative model, parental availability,

monitoring, and support are powerful protective factors for reducing the risk of antisocial behavior (Dubow et al., 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 with regard to stress hardiness, communication skills, problem-solving, self-discipline, and connection to others. Although 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). Although, 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, which combines to predict the outcomes (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 et al. (1994). First, resilience helps 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, an innate set of practices to guide clinical intervention.

A Cascade of Risks

Although 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 from 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, 1983a).

Research on adverse childhood experiences (ACEs) has demonstrated the impact of stress-related risk factors in childhood on later adult physical and mental health (for a review, see Finkelhor, 2018). 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 an 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 risks. 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 on 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 Centers for Disease Control Youth Risk Behavior Surveillance System (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 years and rare but increasing between the ages of 10 and 14 years. Three million teenagers struggle at any given time with depression. Only one-third receive mental health services.

The Centers for Disease Control and Prevention and the Substance Abuse and Mental Health Services Administration (2002) note that one-half of motor vehicle accidents in the United States involving teens are associated with alcohol and drugs. In all, 30% of adolescent suicides are associated with alcohol and drugs. Furthermore, children and teens who abuse alcohol and drugs engage in a variety of risk-taking behaviors at a significantly higher rate than does the general population.

Across the world, about 1 billion children are multidimensionally poor, meaning that they lack necessities as basic as nutrition or clean water. Some 150 million additional children have been plunged into multidimensional poverty due to COVID-19. An estimated 356 million children live in extreme poverty (UNICEF, 2020).

In all, 40% of children under the age of 6 years in the United States live in homes with an income below $27,000 per year for a family of four. A total of 16% of children or more than 11 million live in homes that are below the federal poverty level. In all, 6% of children or five million live in extreme poverty. Finally, the poverty rate is the highest among African Americans (30%) and Latinos (28%) (US Census Bureau, 2019).

According to the Centers for Disease Control and Prevention National Household Survey of Drug Abuse, homicide is the second leading cause of death for all 15- to 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 years were injured as a result of violence. More than 800,000 children were documented victims of child abuse nationwide.

The US Department of Health and Human Services (2019) reported that an American child was abused and neglected every 11 seconds. It is estimated that at least one in seven children in the United States have experienced child abuse and/or neglect in the past year. Neglect is the most common form of child abuse, followed by physical abuse, sexual abuse, and psychological abuse. Both boys and girls experience similar rates of childhood abuse (48.6% and 51%, respectively).

More than half a 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 childcare and early childhood education while their parents are at work. Seven and a 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, 2019).

In 2002, the Committee for Children at the National School Safety Center reported 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. The US Department of Education in 2017 reported that the number had increased to one out of five youth being bullied.

According to the Youth Risk Behavior Surveillance System at the Centers for Disease Control (2019), the complex picture that emerges, pre-pandemic, of youth over a 10-year period alleviates some traditional concerns

while raising new ones. Teenagers' overall involvement in risk-taking has declined during the past two decades (except among Hispanics), with fewer teens engaging in multiple risk behaviors. However, multiple-risk teens remain an important group, responsible for most adolescent risk-taking. However, almost all risk takers also engage in positive behaviors; they participate in desirable family, school, and community activities. These positive connections offer untapped opportunities to help teens lead healthier lives. Between 1991 and 1997, there was a sizable increase in the number of students who did not participate in any of the 10 risk behaviors and a sizable decrease in the proportion of students who engaged in multiple risk behaviors. Despite this, the number of highest-risk students – those participating in five or more risk behaviors – remained stable. Of note, Hispanic students did not report the same shift toward less risk-taking.

Most risks are taken by multiple-risk students. The overall prevalence of a specific risk behavior among teenagers is primarily due to the behavior of multiple-risk students, since the majority of students involved in any given behavior were also engaging in other risk behaviors. For example, among the 12% of students reporting regular tobacco use, 85% were multiple risk takers. The number of girls giving birth between the ages of 15 and 19 years has 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 for the need to develop a clinical psychology of resilience.

Yet, nearly all teens, even those engaging in multiple risk behaviors, participate in positive behaviors. In all, 92% of students engage in at least one positive behavior, such as earning good grades, participating in extracurricular activities, spending time with parents, or being involved in a religious institution. Most out-of-school boys are also involved in appropriate positive behaviors, although less so than their in-school peers. Although multiple-risk teens engage in positive behaviors, participation in positive behaviors declines with increased risk-taking.

Furthermore, multiple-risk adolescents have many points of contact beyond their home and classroom. The assumption that risk-taking teens are socially disconnected is challenged by new findings that map their participation in a wide range of settings, such as faith-based institutions, the workplace, healthcare, and the criminal justice system. Their involvement in settings beyond their home and classroom, especially for out-of-school adolescents, offers opportunities for a myriad of interventions to reduce risk-taking and enhance resilience.

Toward 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 a possible recovery after exposure to stress. Bonanno (2004) distinguishes between the concepts of resilience and recovery. As previously discussed, the initial application of resilience to 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 other. This concept was further echoed by Anthony (1987). As Ann 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 observes, 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, then 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 a good or adequate outcome in the face of adversity. This continues to be a complex issue that is just now being addressed empirically (Finkelhor, 2018; 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 a clinical psychology of resilience. Their model contains four domains of influence and two transactional points between the 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 that 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 et al., 1990) reflects the concept of Brooks and Goldstein (2001, 2003) 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 connection to others. The third reflects the external support systems in the neighborhood and community that reinforce self-esteem and self-efficacy. From their longitudinal work, Werner and Smith (1993) point out a large number of variables, such as age, birth order, ages of siblings, family size, and gender of the child, which 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 risks. 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, whereas 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 and 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, the 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, and resilient youth appear to possess average or better academic outcomes, conduct, and social histories. They appear to possess highly similar psychosocial resources, including better intellectual functioning, parental mental health, parental availability, and more positive self-concepts. Although 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 et al., 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 performances on intellectual tests, many of which are highly loaded on achievement, 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 an 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 pointed out in 1994, the outcome is determined in part by the relative balance and interaction between risk and protective factors. The more the risk factors are present, the more likely the outcome will be adverse (Greenberg et al., 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 to explain the manner by which biological factors such as stress during pregnancy, premature birth, and genetic variations leading to learning or related problems interact with family risk factors such as neglectful or harsh parenting and inconsistent childcare, with physical phenomena such as poor nutrition and educational and community experiences. It has yet to be truly understood and defined the means by which a child growing up with a learning disability in a poverty-stricken home, in a high-risk neighborhood, with parents exhibiting mental illness can and does overcome these adversities and successfully transitions into adult life.

On a basic level, it is still debated as to how nature and nurture interact. How do genes and environments influence each other? How might a child's genetically driven temperament influence parental behavior, thus, in part, forming the basis for a child's attachment and ultimately affecting parental behavior? Whether a continuous or discontinuous process, children's development is impacted by a host of phenomena. The study of a clinical psychology of resilience will allow for the examination of the means by which biological, environmental, and related factors interact. For example, children who are active or temperamentally irritable may be more likely to continue to respond maladaptively in the face of ineffective

parental behavior than children who do not demonstrate these patterns of temperament. Such children may be more sensitive to environmental risk factors (Belsky et al., 1996).

Finally, a clinical psychology of resilience must incorporate an understanding of the process of human development. Many of the renowned developmental theorists have assumed that human growth is in part driven by a need to cope, adapt, and develop a healthy homeostasis (Lorion, 2000). Across theoretical models, resilience, as encompassed within a wellness model, is characteristic of positive adaptation. Thus, the absence of symptoms should not be equated with resilience or for that matter good functioning (Luthar & Brown, 2007). Studies of youth capable of overcoming a variety of unfavorable environmental phenomena are confirmatory that resilience in fact operates for some but not for others. Some youth are insulated or protected, seemingly invulnerable from risks likely to overcome most others. It may be that these resilience qualities are the best predictors of a positive adult outcome (Brodsky, 1996; Masten & Coatsworth, 1998).

The Synthesis of a Model

In a review of successful prevention programs, Schorr (1988) suggests that effective programs for youth at risk are child-centered and based upon the establishment of their relationships with adults who are caring, respectful, and who build trust. In writing about single mothers and their children, Polakow (1993) suggests that ultimately connections to people, interests, and to life itself may represent the key component in resilient processes. This phenomenon is well-articulated by Hallowell (2001). As Michael Rutter has pointed out, "Development is a question of linkages that happen within you as a person and also in the environment in which you live" (as cited in Pines, 1984, p. 62). "The complexity of risk and resilience processes operating in multiple embedded systems of development in diverse contexts calls for the expertise of more than one discipline whether the goal is to advance empirical knowledge or to change the course of development through intervention" (Masten, 1999, p. 254).

Yet, if challenges are too severe, then normal processes break down (Baldwin et al., 1993). Baldwin et al. describe resilience as "a name for the capacity of the child to meet a challenge and to use it for psychological growth" (p. 743). In their description of an applied resiliency model, stressors are life challenges that if not balanced by external protective processes or resiliency factors within the individual lead to a disruption in functioning. Flach (1988) suggests that this process is not unidirectional but that individuals can recover and function better as risks reduce and protective factors are introduced. It may well be, as Tarter (1988) notes, that vulnerability is "a characteristic that predisposes an individual to a negative outcome" (p. 78). Thus, a particular factor creates vulnerability but does not necessarily define the level of vulnerability experienced by a particular individual. Shared and nonshared environments likely also play moderating roles in determining the risk and protective factors for particular individuals. Resilience is perhaps best understood as a product of a phenotype–environment interaction (Tarter & Vanyukov, 1994). This phenomenon, referred to as epigenesis, likely offers the best understanding of the individual effects that risk and protective factors have on shaping resilience. Such a phenomenon must be understood if it is to be effectively applied to a clinical framework.

Given the complexity of the human species and the culture we have created, there is a need to view the accomplishment of wellness and resilience from a multifaceted developmental and dynamic perspective (Masten & Coatsworth, 1998). The behavioral and emotional problems of children, the nature of our culture, and risks such as emotional or physical abuse all present as significant challenges. None have single or simple etiologies or solutions. All appear to arise from a complex interaction of biological, environmental, and cognitive influences. All of these influences to some extent are idiosyncratic to the individual.

Many risk factors such as poverty or neighborhood adversity cannot be easily ameliorated.

Although the process of resilience may reflect "the power of the ordinary" (Masten, 2001), there must be an increasing focus on understanding the protective variables that allow some children to function well in these environments and continue to function well in the future. Just as risk factors are not specific to particular adverse outcomes, protective factors may also not be equally specific. The "ordinary magic" that Ann Masten so eloquently writes about becomes an elusive phenomenon in the face of these risks. Masten (2001) notes that resilience does not appear to arise from rare or special qualities but from "the everyday magic of ordinary, normative human resources in the minds, brains and bodies of children in their families and relationships and in their communities" (p. 235).

In 1993, Coie et al. provided a list of generic risk factors including those of family conflict and poverty. These researchers and others have noted a diverse set of protective factors that often relate to close relationships with prosocial and caring adults (Masten et al., 1990). Finally, there is increasing research primarily reflecting genetically driven phenomena that predispose individuals to either stress hardiness or risk in the face of adversity. These types of cumulative risk and protection models form the basis of what is hoped to be the future state of the clinical psychology of resilience and treatment for youth at risk (Liu et al., 2017; Yoshikawa, 1994).

This volume, as with its two predecessors, addresses 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 may serve to protect the negative effects of other stressors, whereas others simply act to enhance development regardless of the presence of stress.

As Seligman (1998a, b) has pointed out, attending to those issues that are preventative and creating a resilient mindset and wellness will require a significant paradigm shift in mental health professionals and the community at large. Seligman has suggested that this shift will not be easy to make. While professionals may be "ill-equipped to do effective prevention" (Seligman, 1998a, p. 2), at this time, the development of a systemic, clinical psychology of resilience still appears to offer the best hope of forming a cornerstone for the development of a "positive social science." In addition, we have an increasing volume of good science to suggest that this is not an inconceivable quest. Joyce et al. (2018), while conducting a meta-analysis of resilience training programs and interventions, found 437 citations and 111 peer-reviewed articles. Seventeen of these studies met the inclusion criteria and were subject to a quality assessment, with 11 randomized controlled studies being included in the final meta-analysis. Programs were stratified into one of three categories: (1) cognitive behavioral therapy (CBT)-based interventions, (2) mindfulness-based interventions, or (3) mixed interventions, i.e., those combining CBT and mindfulness training. A meta-analysis found a moderate positive effect of resilience interventions (0.44; 95% confidence interval (95% CI): 0.23–0.64) with subgroup analysis, suggesting that CBT-based, mindfulness, and mixed interventions were the most effective. Resilience interventions based on a combination of CBT and mindfulness techniques appear to have a positive impact on individual resilience.

Since the publication of the first edition of this volume, the field has greatly progressed from good ideas to workable solutions, yet to borrow from the late poet Robert Frost, "We have promises to keep to the next generation and miles to go before we sleep."

References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. – text revision). Author.

Anthony, E. J. (1987). Risk, vulnerability and resilience: An overview. In E. J. Anthony & B. Cohler (Eds.), *The invulnerable child* (pp. 3–48). Guilford Press.

August, G. J., & Gewirtz, A. (2019). Moving toward a precision-based, personalized framework for prevention science: Introduction to the special issue. *Prevention Science, 20*(1), 1–9.

Bakermans-Kranenburg, M. J., van Ijzendoor, M. H., Pijlman, F. T. A., Mesman, J., & Juffer, F. (2008).