

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

The Impact of Early Life Trauma on Health and Disease The Hidden Epidemic

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

The Impact of Early Life Trauma on Health and Disease

The Hidden Epidemic

Edited by

Ruth A. Lanius

Associate Professor, University of Western Ontario, Canada

Eric Vermetten

Associate Professor, University Medical Center and Military Mental Health, Central Military Hospital, Utrecht, the Netherlands

Clare Pain

Associate Professor, University of Toronto, Canada



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press
 978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic
 Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain
 Frontmatter
[More information](#)

CAMBRIDGE
 UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9780521880268

© Cambridge University Press 2010

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2010

7th printing 2015

Printed in the United Kingdom by Print on Demand, World Wide

A catalogue record for this publication is available from the British Library

Library of Congress Cataloguing in Publication data

The impact of early life trauma on health and disease : the hidden epidemic / [edited by]

Ruth A. Lanius, Eric Vermetten, Clare Pain.

p. ; cm.

Includes bibliographical references and index.

ISBN 978-0-521-88026-8 (hardback)

1. Post-traumatic stress disorder in children--Complications. 2. Psychic trauma in children--Complications. 3. Adult child abuse victims--Mental health. 4. Adult child abuse victims--Health and hygiene. I. Lanius, Ruth A., 1968-- II. Vermetten, Eric, 1961-- III. Pain, Clare. IV. Title. [DNLM: 1. Stress Disorders, Post-Traumatic--complications. 2. Adult Survivors of Child Abuse--psychology. 3. Mental Disorders--etiology. WM 170 I335 2010]

RJ506.P55I47 2010

618.92'8521--dc22 2010016394

ISBN 978-0-521-88026-8 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Every effort has been made in preparing this book to provide accurate and up-to-date information which is in accord with accepted standards and practice at the time of publication. Although case histories are drawn from actual cases, every effort has been made to disguise the identities of the individuals involved. Nevertheless, the authors, editors and publishers can make no warranties that the information contained herein is totally free from error, not least because clinical standards are constantly changing through research and regulation. The authors, editors and publishers therefore disclaim all liability for direct or consequential damages resulting from the use of material contained in this book. Readers are strongly advised to pay careful attention to information provided by the manufacturer of any drugs or equipment that they plan to use.

Contents

List of contributors page vii
Foreword xiii
 Vincent J. Felitti
Acknowledgements xvii

Section 1 Early life trauma: impact on health and disease

Part 1 Childhood trauma: epidemiology and historical themes 3

1 The history of early life trauma and abuse from the 1850s to the current time: how the past influences the present 3

Martin J. Dorahy, Onno van der Hart and Warwick Middleton

2 The epidemiology of early childhood trauma 13

Karestan C. Koenen, Andrea L. Roberts, Deborah M. Stone and Erin C. Dunn

3 Historical themes in the study of recovered and false memories of trauma 25

Constance J. Dalenberg and Kelsey L. Paulson

4 Early trauma, later outcome: results from longitudinal studies and clinical observations 33

Nathan Szajnberg, Amit Goldenberg and Udi Harari

Part 1 synopsis 43

Alexander McFarlane

Part 2 The effects of life trauma: mental and physical health 48

5 Attachment dysregulation as hidden trauma in infancy: early stress, maternal buffering and psychiatric morbidity in young adulthood 48

Jean-François Bureau, Jodi Martin and Karlen Lyons-Ruth

6 Towards a developmental trauma disorder diagnosis for childhood interpersonal trauma 57

Bessel A. van der Kolk and Wendy d' Andrea

7 Complex adult sequelae of early life exposure to psychological trauma 69

Julian D. Ford

8 The relationship of adverse childhood experiences to adult medical disease, psychiatric disorders and sexual behavior: implications for healthcare 77

Vincent J. Felitti and Robert F. Anda

Part 2 synopsis 88

Alicia F. Lieberman

Section 2 Biological approaches to early life trauma

Part 3 The impact of early life trauma: psychobiological sequelae in children 95

9 Juvenile stress as an animal model of childhood trauma 95

Gal Richter-Levin and Shlomit Jacobson-Pick

10 Lateral asymmetries in infants' regulatory and communicative gestures 103

Rosario Montiroso, Renato Borgatti and Ed Tronick

11 Neurobiology of childhood trauma and adversity 112

Martin H. Teicher, Keren Rabi, Yi-Shin Sheu, Sally B. Seraphin, Susan L. Andersen, Carl M. Anderson, Jeewook Choi and Akemi Tomoda

12 The neurobiology of child neglect 123

Michael D. De Bellis

13 Early life stress as a risk factor for disease in adulthood 133

Philip A. Fisher and Megan Gunnar

Part 3 synopsis 142

Allan N. Schore

Contents

Part 4 The impact of childhood trauma: psychobiological sequelae in adults 148

- 14 **Early life stress and psychiatric risk/resilience: the importance of a developmental neurobiological model in understanding gene by environment interactions 148**
Kelly Skelton, Tamara Weiss and Bekh Bradley

- 15 **The neuroendocrine effects of early life trauma 157**
Jamie L. LaPrairie, Christine M. Heim and Charles B. Nemeroff

- 16 **Long-lasting effects of childhood abuse on neurobiology 166**
J. Douglas Bremner, Eric Vermetten and Ruth A. Lanius

- 17 **Biological framework for traumatic dissociation related to early life trauma 178**
Christian Schmahl, Ruth A. Lanius, Clare Pain and Eric Vermetten

- 18 **Neurobiological factors underlying psychosocial moderators of childhood stress and trauma 189**
Fatih Ozbay, Vansh Sharma, Joan Kaufman, Bruce McEwen, Dennis Charney and Steven Southwick

Part 4 synopsis 200
Sonia J. Lupien

Section 3 Clinical perspectives: assessment and treatment of trauma spectrum disorders

Part 5 Assessment of the impact of early life trauma: clinical science and societal effects 207

- 19 **Assessing the effects of early and later childhood trauma in adults 207**
John Briere and Monica Hodges
- 20 **Memory and trauma: examining disruptions in implicit, explicit and autobiographical memory 217**
Melody D. Combs and Anne P. DePrince
- 21 **Scientific progress and methodological issues in the study of recovered and false memories of trauma 225**
Constance J. Dalenberg and Oxana G. Palesh

- 22 **The psychosocial consequences of organized violence on children 234**
Felicia Heidenreich, Mónica Ruiz-Casares and Cécile Rousseau

Part 5 synopsis 242
David Spiegel

Part 6 Strategies to reduce the impact: clinical treatment 247

- 23 **The role of mentalizing in treating attachment trauma 247**
Jon G. Allen, Peter Fonagy and Anthony Bateman

- 24 **Pragmatic approaches to stage-oriented treatment for early life trauma-related complex post-traumatic stress and dissociative disorders 257**
Richard J. Loewenstein and Victor Welzant

- 25 **Cognitive-behavioral treatments for post-traumatic stress disorder 268**
Kathleen M. Chard and Amy F. Buckley

- 26 **Emotions and emotion regulation in the process of trauma recovery: implications for the treatment of post-traumatic stress disorder 278**
Anthony Charuvastra and Marylene Cloitre

- 27 **Psychodynamic psychotherapy: adaptations for the treatment of patients with chronic complex post-traumatic stress disorder 286**
Clare Pain, Ruth A. Lanius, Pat Ogden and Eric Vermetten

Part 6 synopsis 295
Tal Astrachan, Carla Bernardes and Judith Herman

Epilogue 300
Index 303

Color plates are situated between pages 108 and 109.

Contributors

Jon G. Allen, PhD

The Menninger Clinic
 Houston, TX, USA

Robert F Anda, MD, MS

Carter Consulting Inc.
 Atlanta, GA, USA

Susan L. Andersen, PhD

Department of Psychiatry
 Harvard Medical School
 Laboratory of Developmental
 Neuropharmacology
 McLean Hospital
 Belmont, MA, USA

Carl M. Anderson, PhD

Department of Psychiatry
 Harvard Medical School
 Brain Imaging Center and
 Developmental Biopsychiatry
 Research Program
 McLean Hospital
 Belmont, MA, USA

Wendy d'Andrea

Trauma Center
 Brookline, MA, USA

Tal Astrachan, PsyD

Victims of Violence Program
 Department of Psychiatry
 Cambridge Health Alliance
 Harvard Medical School
 Cambridge, MA, USA

Anthony W. Bateman, MA, FRCPsych

St. Ann's Hospital, Halliwick Unit
 London, UK

Carla Bernardes, PhD

Department of Psychology
 Victims of Violence Program
 Cambridge Health Alliance
 Harvard Medical School
 Cambridge, MA, USA

Renato Borgatti

Department of Child and
 Adolescent Neurology and Psychiatry
 Scientific Institute
 "E. Medea"
 Lecco, Italy

Bekh Bradley, PhD

Atlanta VA Medical Center
 Decatur, GA, USA

J. Douglas Bremner, MD

Departments of Psychiatry and Radiology
 Emory University School of Medicine
 Clinical Neuroscience Research Unit, Psychiatry &
 Behavioral Science
 Atlanta VAMC,
 Atlanta, GA, USA

John Briere, PhD

Departments of Psychiatry and Psychology
 Psychological Trauma Program
 Keck School of Medicine
 University of Southern California
 Los Angeles, CA, USA

Amy F. Buckley, PhD

PTSD and Anxiety Disorders Division
 Cincinnati VA Medical Center
 Cincinnati, OH, USA

Jean-Francois Bureau, PhD

School of Psychology
 University of Ottawa
 Ottawa, ON, Canada

Kathleen M. Chard

PTSD and Anxiety
 Disorders Division
 Cincinnati VA Medical Center
 Cincinnati, OH, USA

Dennis Charney, MD

Mount Sinai School of Medicine
 Department of Psychiatry
 New York, NY, USA

Cambridge University Press
 978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic
 Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain
 Frontmatter
[More information](#)

List of contributors

Anthony Charuvastra, MD

NYU Child Study Center Trauma and Resilience
 Research Program
 Nathan S. Kline Institute for Psychiatric Research
 NYU Child Study Center
 New York, NY, USA

Jeewook Choi, MD, PhD

Department of Psychiatry
 The Catholic University of Korea
 Daejeon St. Mary's Hospital
 Jung-gu, Daejeon, Korea

Marylene Cloitre, PhD

Trauma and Resilience Research Program, Child
 Study Center
 Department of Psychiatry
 New York University School of Medicine
 NY, USA

Melody D. Combs, PhD

The Kempe Center for the Prevention and Treatment
 of Child Abuse and Neglect
 The Gary Pavilion at The Children's Hospital
 Anschutz Medical Campus
 Aurora, CO, USA

Constance J. Dalenberg PhD

Trauma Research Institute,
 Alliant International University
 San Diego, CA, USA

Martin J. Dorahy PhD, DClinPsych

Department of Psychology
 University of Canterbury
 Christchurch, New Zealand

Michael D. De Bellis MD, MPH

Healthy Childhood
 Brain Development and Developmental
 Traumatology Research Program
 Department of Psychiatry and
 Behavioral Sciences
 Duke University Medical Center
 Durham, NC, USA

Anne P. DePrince, PhD

University of Denver
 Psychology Department
 Denver, CO, USA

Erin C. Dunn, MPH

Harvard School of Public Health
 Department of Society, Human Development, and
 Health, Boston, MA, USA

Vincent J. Felitti, MD

Kaiser Permanente Medical Care
 Program, and University of California School of
 Medicine
 San Diego, CA, USA

Philip A. Fisher, PhD

Department of Psychology, University of Oregon
 Senior Research Scientist, Oregon
 Social Learning Center
 Eugene, OR, USA

Peter Fonagy, PhD

The Anna Freud Centre
 London, UK

Julian D. Ford, PhD

Department of Psychiatry
 University of Connecticut
 School of Medicine,
 Farmington, CT, USA

Amit Goldenberg

Hebrew University
 Mount Scopus, Jerusalem, Israel

Megan R. Gunnar, PhD

Institute of Child Development
 University of Minnesota
 Minneapolis, MN, USA

Udi Harari

Hebrew University
 Mount Scopus, Jerusalem, Israel

Felicia Heidenreich

Transcultural Research and
 Intervention Team (TRIT)
 CSSS de la Montagne
 Montréal, QC, Canada

Christine Heim PhD

Department of Psychiatry &
 Behavioral Sciences
 Emory University School of Medicine
 Atlanta, GA, USA

List of contributors

Judith Herman MD

Victims of Violence Program
 Department of Psychiatry
 Cambridge Health Alliance
 Cambridge, MA, USA

Monica Hodges, PhD

Department of Psychology
 California State University
 Long Beach CA, USA

Shlomit Jacobson-Pick, PhD

Institute of Neuroscience
 Carleton University, Ottawa, Canada.

Joan Kaufman, PhD

Yale University School of Medicine
 Department of Psychiatry
 Yale University New Haven, CT, USA

Karestan C. Koenen, PhD

Harvard School of Public Health
 Departments of Society, Human Development, and
 Health & Epidemiology
 Boston, MA, USA

Ruth A. Lanius, MD, PhD

Harris-Woodman Chair
 Department of Psychiatry
 The University of Western Ontario
 London, Ontario, Canada

Jamie L. LaPrairie MS PhD

Emory University Department of Psychology
 Women's Mental Health Program
 Emory University School of Medicine
 Atlanta, GA, USA

Alicia F. Lieberman, PhD

Department of Psychiatry
 University of California San Francisco, and
 Child Trauma Research Program
 San Francisco General Hospital
 San Francisco, CA, USA

Richard J. Loewenstein, MD

The Trauma Disorders Program
 Sheppard Pratt Health System
 Department of Psychiatry
 University of Maryland School of Medicine
 Baltimore, MD, USA

Sonia J. Lupien MD

Hôpital Louis-H. Lafontaine
 Centre d'études sur le stress humain
 Montréal QC, Canada

Karlen Lyons-Ruth, PhD

Department of Psychology
 Harvard Medical School
 Department of Psychiatry
 Cambridge Health Alliance
 Cambridge, MA, USA

Jodi Martin, BA

School of Psychology
 University of Ottawa
 Ottawa, ON, Canada

Bruce McEwen, PhD

The Rockefeller University
 Harold and Margaret Milliken
 Hatch Laboratory of Neuroendocrinology
 New York, NY, USA

**Alexander C. McFarlane MB BS (Hons), MD,
FRANZCP, Dip Psychotherapy**

Department of Psychiatry
 CMVH University of Adelaide Node
 Department of MEAO DHSP studies
 The Centre for Military and
 Veterans' Health
 The University of Adelaide
 Adelaide, Australia

Warwick Middleton MBBS FRANZCP, MD

School of Public Health,
 La Trade University
 Trauma and Dissociation Unit
 Belmont Hospital, Brisbane
 Queensland, Australia

Rosario Montirosso

Department of Child and Adolescent
 Neurology and Psychiatry
 Scientific Institute
 "E. Medea," Lecco, Italy

Charles B. Nemeroff, PhD

Department of Psychiatry &
 Behavioral Sciences
 Emory University School of Medicine
 Atlanta, GA, USA

Cambridge University Press
 978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic
 Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain
 Frontmatter
[More information](#)

List of contributors

Pat Ogden, PhD

Sensorimotor Psychotherapy Institute
 Boulder, CO, USA

Fatih Ozbay, MD

Mount Sinai School of Medicine
 Department of Psychiatry
 New York, NY, USA

Clare Pain MD, MSc, FRCPC

Department of Psychiatry, University of Toronto
 Psychological Trauma Program, Mount Sinai
 Hospital, Toronto Addis Ababa Psychiatry Project
 (TAAPP), Toronto Addis Ababa
 Academic Collaboration (TAAAC) Mount Sinai
 Hospital, Joseph and Wolf Lebovic Health Complex
 room 934, Toronto, ON, Canada

Kelsey Paulson

Alliant International University
 San Diego, CA, USA

Oxana G. Palesh, PhD, MPH

Department of Radiation Oncology and
 Department of Psychiatry
 University of Rochester Medical Center
 James P. Wilmot Cancer Center
 Rochester, NY, USA

Ms. Keren Rabi

Massachusetts School of Professional Psychology
 Child and Adolescent Program
 McLean Hospital
 Belmont, MA, USA

Gal Richter-Levin, PhD

Department of Neurobiology and Ethology and
 Department of Psychology University of Haifa, Haifa
 31905 Israel

Andrea L. Roberts, PhD

Harvard School of Public Health
 Department of Society,
 Human Development, and Health
 Boston, MA, USA

Cécile Rousseau, MD

Department of Psychiatry
 McGill University
 Montréal, QC, Canada

Cécile Rousseau, MD

Division of Social and Cultural Psychiatry
 McGill University
 Transcultural Research and
 Intervention Team (TRIT)
 Youth Mental Health
 CSSS de la Montagne
 Montréal, QC, Canada

Monica Ruiz-Casares

Transcultural Research and
 Intervention Team (TRIT)
 CSSS de la Montagne
 Montréal, QC, Canada

Christian Schmahl, MD

Department of Psychosomatic Medicine and
 Psychotherapy, Central Institute of Mental Health
 Mannheim, Germany

Allan N. Schore, PhD

Department of Psychiatry and
 Biobehavioral Sciences
 University of California at Los Angeles
 David Geffen School of Medicine
 Northridge, CA, USA

Sally B. Seraphin, PhD

Developmental Biopsychiatry Research Program
 McLean Hospital
 Belmont, MA, USA

Vansh Sharma, MD

Mount Sinai School of Medicine
 Department of Psychiatry
 New York, NY, USA

Yi-Shin Sheu, BS

Psychological and Brain Sciences Program
 The Johns Hopkins University
 Baltimore, MD, USA

Kelly Skelton, MD, PhD

Atlanta VA Medical Center
 Decatur, GA, USA

Steven Southwick, MD

Yale University School of Medicine
 Department of Psychiatry
 New Haven, CT, USA

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

List of contributors

David Spiegel, MD

Department of Psychiatry &
Behavioral Sciences
Stanford University School of Medicine
Stanford, CA, USA

Deborah M. Stone, ScD, MSW, MPH

Harvard School of Public Health
Department of Society, Human
Development, and Health
Boston, MA, USA

Nathan Szajnberg, MD

Hebrew University
Mount Scopus, Jerusalem, Israel

Martin H. Teicher, MD, PhD

Department of Psychiatry
Harvard Medical School
Developmental Biopsychiatry Research Program
McLean Hospital
Belmont, MA, USA

Akemi Tomoda, MD, PhD

Department of Child Development
Faculty of Life Sciences
Kumamoto University, Japan

Ed Tronick, PhD

Child Development Unit
Children's Hospital Boston
Boston, MA, USA

Onno van der Hart, PhD

Department of Clinical and
Health Psychology
Utrecht University, Utrecht
Netherlands

Bessel A. van der Kolk, MD

Department of Psychiatry
Boston University School of Medicine
Trauma Center, Brookline, MA, USA

Eric Vermetten, MD, PhD

Research Military Mental Health
Central Military Hospital
UMC Utrecht, Rudolf Magnus Institute of
Neuroscience
Utrecht, Netherlands

Tamara Weiss, MD

Department of Psychiatry and
Behavioral Sciences
Emory University School of Medicine
Atlanta, GA, USA

Victor Welzant, PsyD

Private Practice
Towson, MD, USA

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

Foreword

In my beginning is my end.

T. S. Eliot, *Four Quartets*

If you were given a newborn infant with all his or her extraordinary potential, and were directed to turn that infant into a school shooter in 15 years, or a mainlining addict in 20, how would you do that? In spite of distaste for the question, obviously at some level we know how to do that. A more general and less disturbing question is *how* do we get to be who we are as human beings – and as patients? That general question has been with us since ancient times. Gods and fate were our explanation throughout most of history. The answer has been refined in relatively recent times, actually coextensive with the quite recent time line of the germ theory, first by poets and then by psychoanalysts, who helped us to see how human development is powerfully influenced by emotionally traumatic early life experiences. More recently still, epidemiologists and neurobiologists have led the explorations.

Traumatic events of the earliest years of infancy and childhood are not lost but, like a child's footprints in wet cement, are often preserved lifelong. Time does not heal the wounds that occur in those earliest years; time conceals them. They are not lost; they are embodied. Only in recent decades has the magnitude of the problem of developmentally damaged humans begun to be recognized and understood. The limits of that understanding, and the resistance to it, are captured well in this book's title, *The Hidden Epidemic*. There is in those words the obvious implication of something causing a serious and widespread threat to health and well-being, but they also offer a paradox, subtly leading us to wonder *why* an epidemic would be hidden, and how? Compared with the questions asked during most of human history, and even those asked today by physicians in their medical histories, the questions of *The Hidden Epidemic* are extraordinary and bold.

The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic summarizes our current approaches to understanding how we get to be the people we are: not only as biological entities, but also as truly human beings with an outer persona and an inner soul. Just as we observe how a leg damaged in childhood sometimes does not grow to its full potential, this book

asks *how* does a persona or a soul become damaged? Why are we all not perfect, or at least similar? Why are only some of us suicides, or addicts, or obese, or criminals? Why do some of us die early while others live long? What is the nature of the scream on the other side of silence? What does it mean that some memories are unspeakable, forgotten or lost in amnesia – and does it matter? Is there a hidden price being paid for this comfort of remaining unaware? What are the basic causes of these phenomena, and what are the mechanisms by which they occur? Do our current ways of medical understanding limit us as physicians? Are they actually a part of the problem? One of the authors proposes a new diagnostic strategy that involves considering the very earliest external influences, certainly including parenting, a role of enormous power whether by its presence, absence or dysfunctional performance. Other authors provide evidence that some of our most common problems in biomedicine and mental health are the result of unconsciously attempted solutions to problems dating back to the earliest years, but hidden by time, by shame, by secrecy and by social taboos against exploring certain areas of life experience. It is becoming evident that traumatic life experiences during childhood and adolescence are far more common than usually recognized, are complexly inter-related and are associated decades later in a strong and proportionate manner to outcomes that are important to medical practice, public health and the social fabric of a nation.

Biomedical researchers have helped us to recognize that childhood events, specifically abuse and emotional trauma even in the earliest years, have profound and enduring effects on the neuroregulatory systems mediating medical illness as well as social behavior from childhood into adult life. Our understanding of the connection between emotional trauma in childhood and the pathways to biomedical and psychopathology in adulthood is still being formed as neuroscientists begin to describe the changes that take place on the molecular level as a result of events or ongoing states of life that occurred hours, months or decades earlier.

Foreword

The editors have paid attention to all parts of our enquiry into the significance of the earliest years of human development: to the roles of abuse and attachment, to genetics and to the epigenetic effects of parenting and other experiences of early life that lead to phenotypic plasticity, to the distinctly partial process of resiliency, and to diagnosis and treatment. The chapter authors, a mix of the internationally distinguished and those on a clearly rising trajectory, provide a blend of clinical observation and highly specific technical information in this bold attempt to bring together what is becoming known by clinical study and by sophisticated technical approaches such as functional imaging. They help us to see how neuroscience and biological psychiatry are now identifying the intermediary mechanisms by which clinical states manifest themselves. The turning point in modern understanding of the role of trauma in medical and psychiatric pathology is commonly credited to Freud, who lived within the lifetimes of many of us, as did Rene Spitz and Harry Harlow with their groundbreaking work on maternal deprivation. Would that they had lived a bit longer to see where we are taking their work.

We are beginning to have remarkable insight into how we become what we are as individuals and as a nation. This understanding is important medically, socially and economically. Indeed, it has given us reason to reconsider the very structure of medical, public health, and social services practice in the USA. We are even beginning to see some of our diagnoses as medical constructs, artifacts resulting from medical blindness to the social realities of life experiences, especially those of infancy and early childhood.

One hopes we will do ourselves proud in these years following the “decade of the brain.” But, as with any major advance in knowledge, there is risk of misunderstanding and misuse. T. S. Eliot described this risk in his lines from *The Rock*:

Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?

As physicians, we typically focus our attention on tertiary consequences, far downstream, while primary causes are well protected by time, by social convention and by taboo. We have often limited ourselves to the smallest part of the problem, that part in which we are erudite and comfortable as mere prescribers of medication, or users of impressive technologies. The hidden epidemic is a problem not only for psychiatry,

but also for medicine and for society in general. Perhaps greater than the risk of misunderstanding or misusing what we are learning is the risk of comfortably not using it at all. Integration of these new discoveries into everyday medical practice is our next big step. Accomplishing that will broaden our experience base sufficiently to allow the beginning of primary prevention for much of physical and mental illness. One already suspects from some of the chapters in this volume that improving parenting skills will be a core feature of primary prevention in the future of medicine and psychiatry.

To the degree that we do not figure out how to integrate this knowledge into everyday clinical practice, we contribute to the problem by authenticating as biomedical disease that which is actually the somatic inscription of life experience on to the human body and brain. The influence of childhood experience, including often-unrecognized traumatic events, is as powerful as Freud and his colleagues originally described it to be. That influence is long lasting, and the researchers in this volume are now describing the intermediary mechanisms, the neural pathways, that these stressors activate for their clinical manifestation. Unfortunately, and in spite of these findings, the biopsychosocial model and the biomedical models of psychiatry remain largely at odds rather than taking advantage of the new discoveries to reinforce each other.

Many of our most intractable public health problems are the result of compensatory behaviors such as smoking, overeating, promiscuity, and alcohol and drug use, which provide immediate partial relief from emotional problems caused by traumatic childhood experiences. That relationship is straightforward: early trauma to depression or anxiety, to obesity, to diabetes, to heart disease; trauma to smoking, to emphysema or lung cancer. But, apart from various common compensatory actions, the chronic life stress of the underlying developmental life experiences is generally unrecognized and hence unappreciated as a second and separate etiological mechanism underlying many biomedical diseases.

In a convincing call for a new theory, *The Hidden Epidemic* provides the credible basis for a new paradigm of medical, public health, and social service practice that would start with comprehensive biopsychosocial evaluation of all patients. It has been demonstrated that this approach is acceptable to patients, can be affordable, and is beneficial in multiple ways. The potential

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

Foreword

gain is huge, and is of major significance at a time when there is great political interest in the cost and processes of medical care. Also huge is the likelihood of clinician and institutional resistance to this change. Actualizing the benefits of this paradigm shift will depend on first identifying and resolving the various bases for resistance to it. In reality, this will require far more planning than would be needed to introduce a purely intellectual or technical advance. However, our experience

suggests that it can be done. Doing so will likely be the major public health advance of our time.

Vincent J. Felitti
Kaiser Permanente Medical Care Program,
San Diego
Clinical Professor of Medicine,
University of California

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)

Acknowledgements

We began working on this book in the spring of 2006 after a memorable lunch in New York. For some years, the three of us had been attending conferences, where we listened to and met senior colleagues in the fields of developmental psychology, epidemiology, genetics, attachment theory, clinical psychiatry, sociology, and neuroscience. Their commitment to the study and research of early life trauma inspired us to capture and integrate it in this edited book. We have tried to present our author's material in a new manner that organizes and simplifies the content areas to be reader friendly. The book has three sections, and each section is divided into two parts. After each part there is a synopsis, each written by senior authors who have reviewed, commented, and reflected on the respective chapters in each section. These synopses serve as "salt and pepper" for the book.

We would like to acknowledge and thank our colleagues for their generous mentoring, teaching, and research. Many of them kindly submitted a chapter for the book. We thank Douglas Bremner for his phrase "the hidden epidemic" which we have included in the title. We also thank Cambridge University Press who trusted us to provide them with a book to print. Special thanks also to the staff at Cambridge University Press, including Pauline Graham, Betty Fulford, Laura Wood, Joanna Souter, Mark Boyd, Jane Ward, and Joanna

Endell-Cooper, who, at various stages of the production process, provided their expertise and assistance. We are much indebted to Richard Marley who allowed us a significant increase in the word allowance which gives this volume the weight it now has. A very special thanks goes to Nancy Mazza for her superb assistance in the various stages of the project, and to Gabriel Shapiro who kindly and expertly worked on the first round of edits.

We also want to recognize our own students who have taught us to be better teachers, and most importantly, we acknowledge our patients to whom this book is dedicated. They have inspired us with their courage in the face of suffering and their perseverance towards recovery.

It is our hope that this book will go toward improving the recognition, assessment, treatment, pedagogy, ongoing research, and public health response to the prevention of early life trauma and reduce the deleterious effects of this hidden epidemic.

London, Utrecht, Toronto

May 14, 2010

Ruth Lanius

Eric Vermetten

Clare Pain

Cambridge University Press

978-0-521-88026-8 - The Impact of Early Life Trauma on Health and Disease: The Hidden Epidemic

Edited by Ruth A. Lanius, Eric Vermetten and Clare Pain

Frontmatter

[More information](#)
