

METHODS FOR DISASTER  
MENTAL HEALTH RESEARCH



# Methods for Disaster Mental Health Research

*Edited by*

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THE GUILFORD PRESS  
New York      London

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A Division of Guilford Publications, Inc.  
72 Spring Street, New York, NY 10012  
www.guilford.com

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Printed in the United States of America

This book is printed on acid-free paper.

Last digit is print number: 9 8 7 6 5 4 3 2 1

**Library of Congress Cataloging-in-Publication Data**

Methods for disaster mental health research / edited by Fran H. Norris . . . [et al].  
p. ; cm.

Includes bibliographical references and index.

ISBN-10: 1-59385-310-6 ISBN-13: 978-1-59385-310-5 (cloth : alk. paper)

1. Post-traumatic stress disorder. 2. Disasters—Psychological aspects. I. Norris, Fran H.

[DNLM: 1. Disasters. 2. Stress Disorders, Post-Traumatic. 3. Research—methods.

WM 170 M592 2006]

RC552.P67M48 2006

616.85'21—dc22

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# Preface

On average, a disaster occurs somewhere in the world each day. These events are almost always of high local interest. Occasionally they are also of national interest, and every now and then they capture the attention of the entire world. In this new century, we already have witnessed disasters so great that they were virtually incomprehensible. Events like the terrorist attacks of September 11, 2001, the southeast Asian tsunami of December 26, 2004, and Hurricane Katrina of August 29, 2005, galvanize concern, leaving policy makers, service providers, journalists, scientists, and the general public clamoring for information that can shed light on the implications of such catastrophes for the survivors, first responders, children and other special populations, the community at large, and entire societies. Interest in findings from research on the psychological consequences of disasters has never been more pronounced than it has been in recent years.

Past disaster mental health research has much to offer these various constituencies, but these recent events have also highlighted the shortcomings of the research. Although our confidence is growing that the extant literature provides us with reliable estimates of the burden of psychopathology among different groups after disasters, large gaps in knowledge remain. For example, research on intervention and treatment has seldom been conducted in the context of a disaster. Few of the studies that document the effects of disasters provide clear answers that can guide the prevention of disaster-related mental health problems. Also, most studies conducted after disasters have been atheoretical, limiting our ability to understand why disasters have documented mental health consequences in populations and,

by inference, limiting our understanding of how we can mitigate these consequences.

Disaster research is different from research done in most other fields in that much of the work is motivated by a sense of urgency. Most researchers enter the field of disaster mental health when a significant event occurs in their home community and frequently do not have time to build research questions on a measured critical appraisal of the body of literature that is scattered across a variety of journals. Concerns about experimental designs and scientific rigor often take a back seat to provider beliefs, consumer demands, and clinical necessities. In many cases, especially following large-scale natural disasters, damage to the community's infrastructure makes fieldwork challenging. Legitimate concerns about ethical issues surrounding research with trauma survivors lead to additional compromises. Researchers and local public health and mental health authorities do not always know how to collaborate with each other and may fear that they do not and cannot speak the same language.

Because of these various issues, the editors of this volume applied for and received grants from the National Institute of Mental Health to increase the quality and utility of disaster mental health research through research education. Through these projects, we have created websites for rapid dissemination of disaster research findings and methods ([www.redmh.org](http://www.redmh.org) and [www.disasterresearch.org](http://www.disasterresearch.org)), mentoring programs for new investigators, and various educational materials and presentations. This book was a direct outgrowth of these activities.

## **PURPOSE AND CONTENTS OF THIS BOOK**

The purpose of this book is to educate the reader about research methods and strategies that can be used to study (1) the effects of disasters on mental health and related constructs or (2) the effectiveness or dissemination of interventions undertaken to prevent or reduce disaster-related mental health problems. Increased understanding of methodological issues and strategies is crucial to developing evidence-based findings that can inform public policy. The book focuses on research that is conducted in community settings using a public health approach. The book is oriented to novice disaster researchers in the fields of psychology, public health, and related disciplines, but we believe it also has something to offer experienced researchers. The text emphasizes the practical and logistical challenges of conducting disaster research as well as methodological and scientific issues. The authors, who are all experienced disaster researchers, are candid about the shortcomings and pitfalls of the particular approach they are describing and make extensive use of examples that illustrate successful approaches.

The book is divided into five parts. Part I provides an introduction to the field. McFarlane and Norris tackle the not-so-simple job of defining the parameters of this field of study and delineate the various features on which disasters vary. Norris and Elrod then provide a review of the empirical research on the psychosocial consequences of disasters that has been conducted over the past 25 years. They describe the methods that have predominated in the field and summarize findings on the magnitude and duration of effects and the influence of various risk and protective factors.

Part II addresses research fundamentals. Using a framework of “why, who, what, when, and how,” North and Norris set the stage for the rest of the book by outlining how study goals dictate methodological choices. Benight, McFarlane, and Norris highlight theories and models that may guide the formulation of useful and significant questions about the development and prevention of mental health problems in the aftermath of disaster. Concluding this section, Fleischman, Collogan, and Tuma aim to increase awareness and understanding of the ethical issues surrounding disaster research and discuss the potential risks and benefits to research participants. This knowledge is essential for any researcher working in this field.

Part III describes the specific methods for sampling and data collection used in the field. Bromet and Havenaar introduce the reader to epidemiological approaches and designs and discuss the advantages of face-to-face procedures in epidemiological research. Their use of examples from research on the 1986 Chernobyl nuclear accident enriches their presentation notably. Galea, Bucuvalas, Resnick, Boyle, Vlahov, and Kilpatrick then provide a practical introduction to the use of telephone-based methods in disaster research. Drawing upon their extraordinary combined experience, these authors describe how these methods allow for the rapid assessment of large populations and offer particular advantages for researchers interested in the consequences of disasters. Schlenger and Silver describe the methods they used to conduct web-based nationwide surveys in the immediate aftermath of the September 11, 2001, terrorist attacks and show how these emerging methods can enhance the field of disaster research. Next, La Greca writes of the considerations surrounding efforts to conduct research on the effects of disasters and terrorism within schools. Schools are a logical setting in which to evaluate children’s reactions to disasters, but they pose many methodological and practical challenges. Palinkas concludes this section by reminding us that quantitative and qualitative research traditions complement one another. He examines the rationale for using qualitative methods and outlines the types of methods that have been or might be used in disaster research.

Part IV shifts our attention to research for planning, policy, and service delivery. Galea and Norris examine a topic of high relevance for disaster-stricken communities: public mental health surveillance and monitoring.

The authors summarize the history and key concepts underlying public health surveillance, discuss the collection and analysis of surveillance data, and argue that public mental health surveillance can play a central role in mitigating the mental health consequences of disasters. Often drawing upon their experience in evaluating postdisaster crisis counseling programs, Rosen and Young then discuss the “precepts, pragmatics, and politics” of conducting mental health services and evaluation research in the aftermath of disaster. Gibson, Hamblen, Zvolensky, and Vujanovic summarize past research on evidence-based treatments for traumatic stress, giving particular attention to “gold-standard” studies. They also discuss the challenges of conducting treatment research in disaster settings. Finally, Marshall, Amsel, Neria, and Suh draw upon their experience in training clinicians in New York after the terrorist attacks of September 11, 2001, to discuss the critical problem of dissemination of evidence-based treatments. Their chapter is organized around the five key questions that dissemination studies must answer.

Part V addresses special challenges in disaster research. These challenges apply across the designs and modalities discussed in Parts III and IV. Steinberg, Brymer, Steinberg, and Pfefferbaum draw upon their tremendous international experience to outline the key issues in conducting disaster research with children and adolescents. They touch upon methodological issues in research design and selection of instruments, coordination of research efforts among research groups, a variety of ethical issues, and special considerations in regard to intervention outcome studies. Likewise, Fullerton, McCarroll, and Ursano draw upon their many years of research and policy experience to advise the reader on how to study military and uniformed service workers effectively. These groups are often first on the scene in the aftermath of disasters, and they bring special characteristics, histories, disaster experiences, and occupational cultures to the research context. Jones, Hadder, Carvajal, Chapman, and Alexander discuss the challenges and opportunities of conducting research with minority and marginalized communities. After outlining the reasons why this work is important, they identify three key barriers to this research (mistrust, access, culture/linguistics) and propose solutions that will help researchers to overcome these barriers. Finally, Murphy, Perilla, and Jones educate the reader about the process of conducting research in foreign countries. Reminding us of the various concerns to keep in mind when undertaking a project across cultural and national boundaries, they describe issues regarding collaboration, finances, language, validity, protection for human participants, engaging the study community, and being a guest researcher.

Matthew Friedman brings the book to a close by reviewing key themes that emerged throughout the text and forging an agenda for the future. This last chapter is followed by two appendices. The first, prepared by

Sandro Galea, contains brief descriptions of the various disasters that are mentioned throughout the text. The second, prepared by Fred Lerner, provides instruction about how to search the literature on disasters and traumatic stress effectively.

A few words are in order about topics that we elected not to include in this book. We did not include a chapter on assessment because many other sources of information are available, including the second edition of *Assessing Psychological Trauma and PTSD* (Wilson & Keane, 2004). In greater detail than was possible here, contributors to that volume describe various approaches to assessment, including standardized self-report measures, structured clinical interviews, and psychophysiological measures, and they addressed special topics, such as traumatic bereavement, substance use, and gender and developmental influences on assessment.

It should also be recognized that disaster mental health is but one topical area in a much broader, multidisciplinary field of study. Readers who are interested in field methods and other social science approaches for studying organized and organizational behavior are referred to Stallings's (2002) edited volume, *Methods of Disaster Research: Unique or Not?*

Finally, we limit our focus to research methods and say little about the host of challenges involved in providing direct mental health care to disaster victims. Interested readers are referred to a number of recent works addressing this topic (Green et al., 2003; Myers & Wee, 2005; National Institute of Mental Health, 2002; Ritchie, Watson, & Friedman, 2006; Ursano & Norwood, 2003).

## SUPPLEMENTARY RESOURCES

This volume should be useful not only to individuals who seek to expand their own research skills but also to instructors who might offer seminars to students seeking graduate or professional degrees. Interested instructors will find supplementary materials that can be downloaded at no cost from [www.redmh.org](http://www.redmh.org). These materials include a draft course syllabus, lecture outlines, a list of topics and controversies for further discussion and exploration, updated bibliographies and recommended reading lists, and a DVD in which expert disaster researchers share their personal experiences and opinions about past and future research. Instructors and other readers may also consult [www.disasterresearch.org](http://www.disasterresearch.org) for guidance on preparing disaster research proposals. Alternatively, readers may contact Fran Norris or Sandro Galea, the first and second editors of this volume, respectively, for these materials.

The editors welcome readers' comments and suggestions. We sincerely hope that this book is helpful, maybe even inspiring, to investigators in this challenging, intriguing, and significant field of research.

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