Handbooks of Sociology and Social Research

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Editors

Handbook of the Sociology of Mental Health

Second Edition

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Editors
Carol S. Aneshensel
Department of Community Health Sciences
Fielding School of Public Health
University of California, Los Angeles
Los Angeles, CA, USA

Jo C. Phelan
Department of Sociomedical Sciences
Mailman School of Public Health
Columbia University
New York, NY, USA

Alex Bierman
Department of Sociology
University of Calgary
Calgary, AB, Canada

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To the memory of Howard B. Kaplan

Though this be madness, yet there is method in’t.
William Shakespeare, *Hamlet*, Act 2, Scene 2

Preface to the Second Edition

Within American society, mental disorder is commonly understood as an attribute of the individual. This intuitive understanding reflects the experiential reality that it is individuals who are beset by feelings of fear and despair, confused by intrusive or jumbled thoughts, addicted to drugs, and so forth. In this regard, everyday thinking is consistent with contemporary psychiatry, which also individualizes pathology, increasingly in biological terms.

The contributors to this handbook collectively articulate an alternative vision, one in which the individual experience of psychopathology is inextricably embedded within its social context. This theme—the interface between society and the inward experience of its members—is developed in an encompassing manner throughout this volume. Although this perspective may seem self-evident, especially in a handbook on the sociology of mental health, the widespread adoption of a medical model of aberrant states, especially by sociologists, we submit, has obscured the relevance of social organization and processes. In fact, since the first edition of this handbook, the medical model has become even more dominant. This change is reflected in public beliefs about the causes of mental disorders, which have shifted significantly toward biological and genetic attributions over the past decade.

The dominance of the medical model is tackled at its most fundamental level by several authors who question our basic understanding of mental illness as illness. One aspect of this critique points to the historical and cultural specificity of the medical model, thereby calling attention to its socially constructed nature. Some question the often tacit assumption that mental disorders exist as objective states that can legitimately be assessed with universal and standardized criteria, especially with regard to comparisons among culturally disparate groups. Several authors also call attention to the impact of social, economic, cultural, and political forces on our science, including the methods we use, how we interpret data, and the conclusions we draw about the mental health impact of these very same forces. Throughout this volume, then, the authors confront the dilemma that even the manner in which we think about mental disorder is shaped by the nature of the society in which we live and conduct our research.

Most of this handbook is devoted to the explanation of one elementary observation: Disorder is not uniformly distributed throughout society but occurs more densely within some social strata than others, especially among those with the fewest social and economic resources. The explanation of such mental health disparities has engaged the attention of sociologists since the earliest community-based surveys revealed an inverse association between disorder and socioeconomic status. It continues to do so.

The most influential idea running through this body of work—the idea that connects work on gender, socioeconomic status, race, ethnicity, age, and poverty—is that social group differences in disorder are linked to corresponding differences in exposure to the social conditions that cause disorder and in responses to those conditions. This idea does not dispute the etiological significance of biological factors but sets these influences to the side, held in reserve to account for individual (as distinct from group) differences. The explanation of group differences in disorder necessarily entails casual agents whose own occurrence also depends (at least in part) on group membership. Social factors best fit this criterion.

This one idea is essential to understanding the distinctive vision that sociologists bring to the study of mental health. From a clinical perspective, disorder is abnormal and its origins lie in anomalous experiences or attributes (an admittedly overly simplistic account). For the sociologist, in contrast, the occurrence of abnormality is a normal by-product of the routine functioning of society. In other words, the social arrangements and processes that serve the interest of some segments of society inevitably harm others. The sources of systematic differences in disorder, then, lie not in the bizarre or happenstance but in the repetition and reproduction of the commonplace. Thus, it is not surprising that social stratification and inequality are prominent themes in this handbook.

The influence of social forces, however, is perhaps most evident in the aftermath of the onset of mental, emotional, or behavioral problems. Here, we see that individuals with essentially the same disorder often follow divergent sequences of societal response, which determine (at least in part) the course of the disorder—its duration, the likelihood of recovery, and the chances of relapse or recurrence. One dimension of the societal response is the definition of the problem in medical terms and associated processes of help seeking and treatment, as well as the institutional contexts within which these processes unfold. The potentially therapeutic effects of treatment tend to be counterbalanced at least to some extent by negative societal responses, such as stigma, including the responses of individuals (family, friends, coworkers, acquaintances, and complete strangers) and institutions (e.g., those providing employment, housing, and health care and those making policy about the rights and regulation of persons with mental illness). Overlapping the issue of stigma are responses of the criminal and civil justice systems, which can have a major impact on the lives of persons identified as having mental illness. And perhaps the most social aspect of mental illness concerns its impact on others, especially the family.

The course of a particular disorder over time displays considerable variation at the individual level. Response to treatment, including reactions to powerful pharmaceutical agents, is often defined in biological or intrapsychic terms. However, there are pronounced group differences in the course and consequences of mental illness as well, differences that once again point to the equally powerful influence of the social factors that differentiate one group from another. The impact of gender, race, ethnicity, age, and socioeconomic status are apparent at virtually every juncture, pointing once again to the significance of systems of stratification and inequality.

These perspectives have characterized the sociological study of mental illness for nearly a half century. In this sense, this handbook can be viewed as a historical record of the emergence of the field and its current state, a description of a work in progress. It presents the state of the art in theory, method, research, and interpretation. Its authors, however, have gone one step further, offering their vision of what lies on the horizon or just beyond it, presenting a sociological agenda for the future. This agenda, we submit, is to reconnect the experience of psychopathology among individuals to its social origins and consequences.

It is our immodest hope, too, that this handbook will foster a reintegration of the sociological study of mental health. Just as the discipline has become increasingly specialized, so too has the subdiscipline. As Toffler (1984) notes, one of the most highly developed skills in contemporary Western civilization is dissection—the splitting up of problems into their smallest possible components—a skill perhaps most finely honed in science. Yet in editing this handbook, we have seen the same themes emerge repeatedly in somewhat different guises. Our initial pleasure at what seemed like a fortuitous outcome has given way to the realization that this outcome was inevitable because its authors have all been describing one and the same thing: the social experience of mental illness. The many stages and transitions of this process have generated areas of specialization that have obscured continuities across time and place. We as a field should assume responsibility for tending these commonalities with the same commitment we have brought to each unique manifestation.

Finally, in undertaking this handbook, we began with what we knew best and branched out to create what we thought of as an encyclopedic perspective. Upon completion of the first edition of this handbook, we saw all too clearly other topics that rightfully had a place in the table of contents. We are fortunate to have had the opportunity to create a second edition, which enabled us to include some of those topics, yet we find ourselves reaching the same conclusion as we complete this edition. There still are important topics that should be addressed in a comprehensive *Handbook of the Sociology of Mental Health.* Thus, we expect that the next handbook on this topic will differ from the present one—as indeed it should.

Carol S. Aneshensel
Jo C. Phelan
Alex Bierman

Reference

Toffler, A. (1984). Science and change: Foreword. In I. Prigogine & I. Stengers (Eds.), *Order out of chaos: Man's new dialogue with nature* (pp. xi–xxvi). New York: Bantam Books.

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Howard B. Kaplan developed and edited the series of *Handbooks of Sociology and Social Research*, which includes this volume, and offered us the opportunity to edit it. We are saddened by the recent loss of our colleague and friend. This edition is dedicated to his memory in recognition of his scholarly contributions to the field of the sociology of mental health and his generous and warm support of so many of us working within it.

We are especially pleased to have had the privilege of plotting the course for this second edition and the good fortune to work with its distinguished authors. We sought out the leading experts in the field, and so the fact that each chapter offers an authoritative summary and critique of its respective subject comes as no surprise. However, these authors also took on the difficult task of extending this knowledge base beyond its past accomplishments. Their creativity, critical thinking, and dedication to this work have gratified and delighted us. This volume owes its existence to their enthusiastic commitment to the project, the goodwill with which they responded to our suggestions for revisions, and their acquiescence to demanding deadlines. To these outstanding authors, we express our special appreciation.

Similarly, we would like to take this opportunity to thank those who conducted the original scholarly work that informs this handbook. Some of these individuals are to be found among the authors of this volume. Most appear only in the text and references, as their work constitutes the body of knowledge that we refer to as the sociology of mental health.

The work presented in this volume is the result of the collective efforts of a large number of people working in numerous institutions. Dr. Aneshensel wishes to thank the University of California, Los Angeles, for a 3-month hiatus from her teaching responsibilities, which enabled this project to get off the ground. Also, Gay L. Meixel and Eliva Ambugo Clinton provided “instrumental social support” with the verification of bibliographical source material. She additionally would like to thank her son and daughter, Gay and Clayton Meixel, for their unfailing support.

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Finally, there is you, the reader of this volume. We thank you in advance for your critical attention to this material, with the hope that it contributes to your own work.

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Contributors

Carol S. Aneshensel Department of Community Health Sciences, Fielding School of Public Health, University of California, Los Angeles, CA, USA

William R. Avison Departments of Sociology, Paediatrics, Epidemiology and Biostatistics, Children's Health Research Institute, Lawson Health Research Institute, The University of Western Ontario, London, ON, Canada

Alex Bierman Department of Sociology, University of Calgary, Calgary, AB, Canada

Lara B. Birk Department of Sociology, Boston College, Chestnut Hill, MA, USA

Edward J. Blousten School of Planning and Public Policy

Carol A. Boyer Institute for Health, Health Care Policy and Aging Research, Rutgers University, New Brunswick, NJ, USA

Evelyn J. Bromet Department of Psychiatry, Stony Brook University, Stony Brook, NY, USA

Tony N. Brown Department of Sociology, Vanderbilt University, Nashville, TN, USA

Martha L. Bruce Department of Psychiatry, Weill Cornell Medical College, White Plains, NY, USA

Sharon Christ Department of Human Development and Family Studies, Department of Statistics, Purdue University, West Lafayette, IN, USA

Jinette Comeau Department of Sociology, The University of Western Ontario, London, ON, Canada

Peter Conrad Department of Sociology, Brandeis University, Waltham, MA, USA

Mary Amanda Dew Departments of Psychiatry, Psychology, Epidemiology, and Biostatistics, University of Pittsburgh School of Medicine and Medical Center, Pittsburgh, PA, USA

Katharine M. Donato Department of Sociology, Vanderbilt University, Nashville, TN, USA

Ebony M. Duncan Department of Sociology, Vanderbilt University, Nashville, TN, USA

William W. Eaton Department of Mental Health, The Johns Hopkins University, Baltimore, MD, USA

Christopher G. Ellison Department of Sociology, The University of Texas at San Antonio, San Antonio, TX, USA

Kenneth F. Ferraro Department of Sociology and Center on Aging and the Life Course, Purdue University, West Lafayette, IN, USA

Linda K. George Department of Sociology, Center for the Study of Aging and Human Development, Duke University, Durham, NC, USA

Virginia Aldigé Hiday Department of Sociology, North Carolina State University, Raleigh, NC, USA

Terrence D. Hill Department of Sociology, Florida State University, Tallahassee, FL, USA

Allan V. Horwitz Department of Sociology, Institute for Health, Health Care Policy, and Aging Research, Rutgers University, New Brunswick, NJ, USA

David A. Karp Department of Sociology, Boston College, Chestnut Hill, MA, USA

Ronald C. Kessler Department of Health Care Policy, Harvard Medical School, Boston, MA, USA

Mary Therese Laske Department of Sociology, Vanderbilt University, Nashville, TN, USA

Bruce G. Link Departments of Epidemiology and Sociomedical Sciences, Mailman School of Public Health, Columbia University, New York, NY, USA

David Maimon Department of Criminology and Criminal Justice, University of Maryland, College Park, MD, USA

Jane D. McLeod Department of Sociology, Indiana University, Bloomington, IN, USA

Tait R. Medina Department of Sociology, Indiana University, Bloomington, IN, USA

John Mirowsky Department of Sociology, Population Research Center, The University of Texas at Austin, Austin, TX, USA

Shirin Montazer University of Toronto, Toronto, ON, Canada

Dawne Mouzon Edward J. Blousten School of Planning and Public Policy, Institute for Health, Health Care Policy, and Aging Research, Rutgers University, New Brunswick, NJ, USA

Carles Muntaner Bloomberg Faculty of Nursing, University of Toronto, Toronto, ON, Canada

Edwin Ng Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada

Leonard I. Pearlin Department of Sociology, University of Maryland, College Park, MD, USA

Bernice A. Pescosolido Department of Sociology, Indiana University, Bloomington, IN, USA

Jo C. Phelan Department of Sociomedical Sciences, Mailman School of Public Health, Columbia University, New York, NY, USA

Patrick J. Raue Department of Psychiatry, Weill Cornell Medical College, White Plains, NY, USA

Sarah Rosenfield Department of Sociology, Institute for Health, Health Care Policy and Aging Research, Rutgers University, New Brunswick, NJ, USA

Catherine E. Ross Department of Sociology, Population Research Center, The University of Texas at Austin, Austin, TX, USA

Scott Schieman Department of Sociology, University of Toronto, Toronto, ON, Canada

Jason Schnittker Department of Sociology, University of Pennsylvania, Philadelphia, PA, USA

Caitlin Slodden Department of Sociology, Brandeis University, Waltham, MA, USA

Katie Stuart-Lahman Department of Sociology, University of Toronto, Toronto, ON, Canada

Galen E. Switzer Departments of Medicine, Psychiatry, and Clinical and Translational Science, University of Pittsburgh School of Medicine and Medical Center, and Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System , Pittsburgh , PA , USA

Mark Tausig Department of Sociology, The University of Akron, Akron, OH, USA

Peggy A. Thoits Department of Sociology, Indiana University, Bloomington, IN, USA

Mieke Beth Thomeer Department of Sociology, The University of Texas at Austin, Austin, TX, USA

J. Blake Turner Department of Psychiatry, New York State Psychiatric Institute, Columbia University, New York, NY, USA

R. Jay Turner Department of Sociology, Vanderbilt University, Nashville, TN, USA

Debra Umberson Department of Sociology, The University of Texas at Austin, Austin, TX, USA

Christophe Vanroelen Research Foundation Flanders, Department of Medical Sociology, Vrije Universiteit, Brussel, Belgium

Heathcote W. Wales Georgetown University, Law Center, Washington, DC, USA

Blair Wheaton Department of Sociology, University of Toronto, Toronto, ON, Canada

Lindsay R. Wilkinson Department of Sociology and Center on Aging and the Life Course, Purdue University, West Lafayette, IN, USA

Kristi Williams Department of Sociology, The Ohio State University, Columbus, OH, USA

Marisa Young Department of Sociology, University of Toronto, Toronto, ON, Canada

Chapter 1
The Sociology of Mental Health: Surveying the Field

Carol S. Aneshensel, Jo C. Phelan, and Alex Bierman

Abbreviations

APA	American Psychiatric Association
CIDI	Composite International Diagnostic Interview
DIS	Diagnostic Interview Schedule
DSM	Diagnostic and Statistical Manual of Mental Disorders
ECA	Epidemiologic Catchment Area Studies
MDD	Major depressive disorder
NIMH	National Institute of Mental Health
PTSD	Posttraumatic stress disorder
SES	Socioeconomic status

This handbook describes how society shapes the mental health of its members and further shapes the lives of those who have been identified as having a mental illness. The terms mental health and mental illness encompass a broad collection of cognitive, emotional, and behavioral phenomena. Mental illness includes, for example, speaking to a companion whom no one else can see; sitting silently in a room, alone, eating little and sleeping less, contemplating death; becoming suddenly overwhelmed with intense anxiety for no apparent reason; consumption of alcohol to such a degree that it becomes difficult to hold a job or maintain friendships; frequent sickness with no identifiable physiological disease; and feeling no remorse when others are injured by one's actions. Although the classification

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C.S. Aneshensel (✉)
Department of Community Health Sciences, Fielding School of Public Health, University of California,
Los Angeles, 650 Young Drive South, Los Angeles, CA 90095-1772, USA
e-mail: anshnsl@ucla.edu

Jo C. Phelan
Department of Sociomedical Sciences, Mailman School of Public Health, Columbia University, New York, NY, USA

A. Bierman
Department of Sociology, University of Calgary, Calgary, AB, Canada

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of these states as "illness" has been questioned, the very use of the term mental health in the title of this handbook reflects widespread acceptance of this perspective among sociologists.[1]

Mental illness is a multifaceted concept whose understanding requires the insights of several disciplines, each contributing a distinctive viewpoint. It is the province of psychiatry, which looks increasingly to genetic, biochemical, and other biological causes. Psychology likewise brings intraindividual considerations to the forefront, whereas cross-cultural variation occupies this position in anthropology.

This volume articulates a characteristically sociological orientation—a concern with how society shapes the thoughts, feelings, and actions of its members in ways that are considered to be mental illness, and with the consequences of having, or being thought to have, a mental illness. This subject matter encompasses the social construction of mental illness and the medicalization of deviant states and behaviors, as well as public perceptions of these conditions.[2] This interpretive perspective also considers the ways individuals experience these states, including incorporating or rejecting identities of mentally ill person, psychiatric patient, and consumer of psychotropic medications. The sociological search for causes of mental illness hones in on social arrangements and processes, with a particular emphasis on the disproportionate concentration of distress and disorder among some social groups. In recent years, a number of institutional and ecological contexts have gained greater attention from sociologists of mental health, and in particular research has increasingly examined the way that religious institutions and neighborhood-level conditions shape mental health. Equally important are the social consequences of mental illness, including the rejection that accompanies stigmatization and responses of the legal system, as well as the impact of mental illness on others, especially the family, and on society as a whole. Finally, we address continuities and change in mental health and illness over time and across the life course.

However, most people who are beset by signs and symptoms of what is known as mental illness do not see themselves as being mentally ill, nor are they identified in this way by others—by friends, family, or employers. A minority seeks treatment; involuntary commitment is even less common. Each of these outcomes is influenced by the person's social characteristics. For example, irrespective of the intensity of symptoms, women are more likely than men to recognize emotional problems, to identify these problems as depression, to seek help, and to obtain treatment (Yokopenic, Clark, & Aneshensel, 1983). Social characteristics also shape interactions with the professions and institutions that treat those who are mentally ill. For example, the likelihood that a diagnosis will be assigned to a given set of symptoms depends upon irrelevant characteristics such as race and gender (Crosby & Sprock, 2004; Loring & Powell, 1988; Neighbors, Trierweiler, Ford, & Muroff, 2003; Rosenfield, 1982). In addition, sociocultural factors shape ideas about how disorder can be ameliorated and the means to achieve this end, for example, through psychotherapeutic or psychopharmaceutical treatment (Pescosolido & Olafsdottir, 2010; Schnittker, 2008).

The remainder of this chapter introduces three substantive areas that are of particular interest to the sociology of mental health. The first concerns alternative understandings of mental health, contrasting the medical model with ideas about the socially constructed nature of mental illness. The second deals with the social and institutional antecedents of mental health problems, while the third addresses the social consequences of these problems. We then conclude the chapter with an overview of the remainder of the text.

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[1] The terms *mental health* and *mental illness* are often used as antonyms, although the concept of health usually includes dimensions of well-being that go beyond the mere absence of illness.

[2] Social construction refers to an invention or artifact created by a particular culture or society in which meanings are attributed to ideas or practices, a perceived social reality that appears to be natural or real because it is taken for granted.

Mental Illness or Social Construction?

The concept of mental illness is of profound sociological interest because there is considerable sociocultural variation in how mental illness is manifest and understood, both across societies and within the various strata comprising a given society. In the extreme, sociologists disagree over whether mental illness exists as anything other than a social construction manufactured primarily by the institution of psychiatry, a radical view (Scheff, 1966). As observed by Eaton (1986), the controversy is not over the occurrence of bizarre behaviors—by which he means human activities that are rare, culturally deviant, and inexplicable—which seem to occur in all cultures and historical periods. Rather, the issue concerns two distinct ways of comprehending these states and behaviors. The medical model employed by psychiatry views mental illness as a disease, a position that has been critiqued by many sociologists who study mental illness as the process of medicalizing problematic aspects of everyday life, for example, the sadness that accompanies loss of important social relationships.

Along these lines, Horwitz (2007a) points out that it is impossible to determine what constitutes mental disorder without delineating what constitutes normal functioning. He describes three prominent views of normality. The first contends that it is impossible to derive any universal standards of normality because normality is determined by social values—a decidedly sociological perspective. The second view equates normal with what is most common, so that normality, in essence, is everything inside the tails of a statistical distribution. The third perspective, and the one Horwitz endorses, defines normal as a natural psychological mechanism that functions in ways that are adaptive to particular kinds of environmental situations. Thus, Horwitz maintains that mental disorder is present when mental mechanisms do not operate as they are designed to operate in relevant situations.

Mental Illness as Social Construction

The importance of relativity, subjectivity, and frame of reference can be seen in Davidson and Layder's (1994, pp. 26–27) description of the proverbial Martian who visits Earth seeking to conduct research on madness:

> What absolute, external criteria could it use to define madness? Unhappiness? Then all those who have recently been bereaved or suffered some other tragedy would be classified insane, along with countless others who live lives of quiet despair brought about by poverty, injustice, racism, war, famine and disease. Cruelty and brutality are not the exclusive property of mad people, but are regularly practiced in many of our most cherished institutions; auditory and visual hallucinations are not considered untoward in the feverish, the religious fanatic, the psychic or the drug user; no therapeutic intervention has been designed to "cure" the grandiose self-importance of statesmen, prelates, and pop stars, and our political leaders' mendacity and ability to simultaneously maintain wholly inconsistent and contradictory positions is not taken as an indication that they are deranged.

This passage introduces several themes that resound throughout this volume.

First, madness appears in many guises: disturbances of feeling—unrelenting sorrow, sudden euphoria, paralyzing anxiety, reckless abandon; breakdowns in thinking—irrational, intrusive, jumbled ideas, hallucinations, delusions; and problematic behavior—purposeless acts, unintelligible talk, rigid immobility, actions that harm the self or others. These states, which collectively comprise the category of human experience labeled mental illness, have little in common with one another. Schizophrenia, for example, bears virtually no resemblance to major depressive disorder (MDD)—except in being extreme states of dysfunction that produce impairment in the enactment of social roles. This hodgepodge quality means that the concept of mental illness often is too amorphous to be useful except as a way of speaking about the conglomerate subject matter of psychiatry.

Second, the attribution of madness to aberrant thoughts, feelings, or behaviors is not inherent to these states but instead is contingent upon the context within which these states occur. As the previously quoted passage makes clear, this attribution is not made when there are other reasonable explanations for these states. Thus, extreme emotions typically are not seen as indicators of mental illness when the affect is appropriate to the situation (Thoits, 1985), such as, a parent's grief over the death of a child. The identification of a state as aberrant, then, is not absolute, but relative to circumstances.

Third, whether the attribution of madness is made depends not only on the setting, but also on the person's characteristics, as there is often greater tolerance of deviance among individuals occupying advantaged positions within society. The characteristics of the observer matter as well. For example, families often tolerate extremely peculiar behavior, behavior that might well prompt a mental health professional to apply a diagnostic label, because people are reluctant to apply the label of mental illness to a loved one and fear the consequences of doing so (Clausen & Yarrow, 1955; Hinshaw, 2005; Horwitz, 1982). The line between eccentricity and insanity, therefore, is not fixed, but moves according to extra-psychic criteria.

These considerations point to the socially constructed nature of mental illness. In the most extreme constructionist view, mental illness does not exist in a material way, but only as an abstraction inferred on the basis of subjective and sometimes arbitrary standards. These standards, in turn, can be found only in societies with worldviews that include the concept of mental illness. Here, we speak not only of clinical definitions of mental illness as found in the diagnostic categories used by psychiatry, but also of lay understandings such as being "crazy" or "insane," "having a nervous breakdown," or going "berserk" or "postal." The existence of these ways of categorizing human experience is a necessary precondition for classifying any particular person as being in this condition. The incorporation of mentally ill person into one's identity also is contingent upon a sociocultural context that includes this social role. The belief that mental illness is a social fabrication superimposed on some states and persons has led some social critics to the radical claim that mental illness is a "myth" (Szasz, 1974).

Nevertheless, the kinds of thoughts, emotions, and actions commonly referred to as "mental illness" are experienced across diverse cultures, social structures, physical environments, and historical epochs. The pervasive presence of these troublesome states suggests that the social construction of mental illness is connected to an objective reality (albeit not in a one-to-one correspondence). The interpretation of this reality, however, has varied widely across place and time, for example, as witchcraft, possession, "susto" or soul loss, or character defects. The historical development of the social constructions culminating in current concepts of mental illness has been described in detail elsewhere (Eaton, 1986; Foucault, 1965; Szasz, 1974; see also Chaps. 4 and 6). Here, we highlight the current thinking about the nature of mental illness, contrasting the medical model with the medicalization of deviance perspective, and considering along the way the question of whether psychopathology constitutes a disjuncture with normality or is on the same continuum as normality, but at the opposite pole.

The Medical Model

Although a variety of understandings of aberrant states have some currency in the modern Western World, the medical model dominates (see Chap. 3). The defining characteristic of the medical model is the assumption that mental disorder is a disease or a disease-like condition that is explained by genetic defects, biochemical imbalances, hormonal dysregulation, and neuronal deficits that can be treated through medical means (Bendelow, 2009; Cockerham, 1996; Kirk & Kutchins, 1992; Raabe, 2010). Terms such as *disease* and *illness* are used literally to connote identical meanings as physical states, not as metaphors that simply call attention to certain similarities between mental and physical dysfunction. Troublesome thoughts, feelings, and actions are seen as signs and symptoms of underlying pathology. The designation of these states as "signs and symptoms" of a discrete disorder is the quintessence of the medical model of psychiatric disorder and, as we shall see, the basis for sociological critiques of it. From this perspective, the appropriate means of treatment are medical interventions, principally psychopharmacology, ideally coupled with psychotherapy (or "talk therapy").

This orientation has gained considerable scientific and lay credence in recent decades, reflecting the increasing influence of biological explanations for mental illness (see Chaps. 3 and 5). Indeed, Insel and Wang (2010) conclude that insights gained from genetics and neuroscience will contribute to a reconceptualization of "disorders of the mind" as "disorders of the brain," and thereby transform the practice of psychiatry. The increasing influence of this orientation also reflects the cumulative efforts of psychiatry to standardize diagnostic criteria. These efforts emerged with the watershed publication of the Diagnostic and Statistical Manual of Mental Disorders-III (DSM-III) (American Psychiatric Association [APA], 1980), which, unlike its predecessors, eschewed classification based on theoretical etiology in favor of a phenomenological approach in which diagnoses are defined by clinically meaningful clusters of signs and symptoms (see Chap. 7). The DSM-III was the result of efforts to enhance the reliability of psychiatric diagnoses—for research as well as clinical practice—and to thereby enhance the scientific credibility of psychiatry and its professional standing within medicine (Kirk & Kutchins, 1992). A substantial majority of Americans now believe that mental illness is caused by "a genetic or inherited problem" or "a chemical imbalance in the brain," although even more also attribute mental illness to stressful circumstances (Schnittker, 2008; see Chap. 5).

Currently, however, the medical model has one considerable shortcoming, which is the inability to demonstrate an organic pathology for most disorders.[3] As Switzer, Dew, and Bromet (see Chap. 7) point out, laboratory markers specific to DSM-defined syndromes have not been identified, nor have neurobiological phenotypic markers or genes that are useful in diagnosis. The absence of identified physiological causes has led some critics of the medical model to question whether these conditions can properly be thought of as diseases.

Biopsychiatry has countered with the claim that the medical model is validated when symptoms subside following the administration of substances that alter the brain's chemistry, even in the absence of information about what caused the symptoms in the first place. In other words, the remedy authenticates the disease. The successes of the psychopharmacological approach have indeed been impressive (side effects notwithstanding), especially for some severe conditions such as schizophrenia, bipolar disorder, and MDD.

However, the effectiveness of pharmaceutical treatments does not demonstrate that the origin of the condition itself is physiological (Cockerham, 1996). Furthermore, critics point out that drug treatments provide temporary symptom control but do not cure the putative disease causing the symptoms. This palliative effect is no small feat, as it facilitates socially acceptable daily functioning among many who would otherwise be beyond even rudimentary participation in society. Nevertheless, the claim that symptom alleviation is evidence of an underlying disease is compromised by the absence of curative effects.

On the basis of these and other considerations, some sociologists reject the idea of mental illness as an illness, whereas others share the psychiatric perspective and still others are agnostic.

The Debate Over Diagnosis

As just mentioned, the medical model assumes that psychiatric disorders are distinct entities just like physical diseases: a person has the disorder or he or she does not. An alternative perspective, one favored by many sociologists, is that psychopathology is at the extreme end of a continuum with similar feelings, thoughts, and behaviors that fall into the realm of normality. The question is whether disorder is qualitatively distinct from normality or is similar to states found among people without mental illness, only more severe. This issue has been a contentious one between psychiatry and sociology, and, as we shall see, now figures prominently in discussions about revisions to the DSM-V (due to be released in 2013), specifically the addition of dimensional assessment to the existing system

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[3] There are exceptions to this generalization, such as Alzheimer's disease, in which the accumulation of beta-amyloid causes plaques in the brain that result in dementia, although even in this case, the cause of these accumulations is uncertain.

of diagnostic categorization (see Chaps. 3 and 7). This issue concerns how we think about mental illness and how it is measured in research and shapes clinical practice.

Consideration of this debate requires a brief historical digression (material that is presented in more detail in Chaps. 3, 7, and 9). As a measurement issue, this debate was ignited by the development and widespread use of the Diagnostic Interview Schedule (DIS; Robins, Helzer, Croughan, & Ratcliff, 1981), which coincided with the development of the DSM-III. The DIS and subsequent permutations of it, such as the Composite International Diagnostic Interview (CIDI) for DSM-III-R diagnostic criteria (Robins et al., 1988), are highly structured interviews that yield research diagnoses based on information obtained by lay interviewers asking standardized questions. (These types of instruments are described in detail in Chap. 7.) The DIS was motivated in large part by the goal of comprehensively assessing the mental health status of the US population, which, due to cost and practical considerations, necessitated the use of lay interviewers to conduct community-based assessment for necessarily large samples. The DIS rapidly ascended to the status of instrument of choice because of its large scale application in the Epidemiologic Catchment Area (ECA) studies (Regier et al., 1985)—an epidemiologic survey conducted at five sites in the USA that revealed that psychiatric disorder is considerably more prevalent in the population than previously appreciated.

The diagnostic approach has, however, received substantial criticism from sociologists. In particular, Mirowsky and Ross (1989a, 1989b, 2002) have delineated ways in which the diagnostic approach impedes scientific understanding of the phenomena under investigation. Specifically, they have criticized the practice of "reifying diagnostic categories," which refers to treating observable attributes (such as hallucinations and flattened affect) in terms of hypothetical underlying entities (such as schizophrenia). They contend that this practice diverts attention away from the causes of the real attributes and toward the hidden and possibly nonexistent biological causes of socially constructed psychiatric entities (see the discussion of social construction above). They have also called attention to the methodological weaknesses inherent in artificially reducing continuous phenomena such as symptom counts into dichotomous categories of disorder being present or absent. These criticisms included collapsing important information about variation in symptoms into two artificial categories, thereby treating all persons who meet diagnostic criteria as if they had the same symptom profile, as well ignoring differences in symptomatology among those who do not meet the criteria. The loss of statistical power that is a consequence of disregarding these distinctions makes it more difficult to detect an association between mental health outcomes and risk factors, even when those associations indeed exist.

Those advocating diagnostic-type assessments have argued that disorder is indeed a discrete entity, qualitatively distinct from seemingly similar normal states, and that symptom checklists measure "problems of living," which are ephemeral aspects of distress of limited clinical importance (Klerman, 1989; Swartz, Carroll, & Blazer, 1989; Tweed & George, 1989). Critics of diagnostic-type measures counter that the approach trivializes the psychological distress that is most common and consequential in the general population (Mirowsky & Ross, 1989a, 1989b, 2002; Pearlin, 1989). Ironically, Horwitz and Wakefield (2007) contend that the DSM diagnosis of MDD has imperialistically appropriated "normal sadness" that is an appropriate response to stressful life experiences, in particular emotional responses pertaining to bereavement. This debate has been aired in special issues of two journals: *Journal of Health and Social Behavior* (2002) and *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine* (2007).

A recent taxometric analysis of symptoms of depression lends support to both perspectives. Beach and Amir (2003) find that items indicative of distress (e.g., mood) are dimensional, but that somatic symptoms form an entity indicative of disruption of multiple homeostatic systems. Notably, they provide a theoretical account for these divergent outcomes. They contend that symptoms of distress in the general population should be dimensional because such distress reflects the smooth working of a self-regulatory system when confronted with extremely adverse circumstances. Based on evolutionary theory, however, they cite the "involuntary defeat syndrome" as an adaptive response to perceived defeat and entrapment that produces a dramatic shift in biological functioning, which results in the disruption of various circadian rhythms. Based on this theory, they assert that the resulting obvious signs of disability signal defeat and lack of threat to others and, therefore, terminate or limit hostile, competitive interactions that otherwise might result in continuing poor outcomes for the self.

This account will be recognized as a biological explanation for the occurrence of a discrete psychiatric disorder, MDD. The explanation given for the dimensional nature of distress, in contrast, is consistent with a stress process model of social causation (see Chaps. 15 and 16). However, it should be noted that finding a discrete form of disorder does not demonstrate that it results from biological processes or that it constitutes a mental illness; correspondingly, the dimensional structure of distress is consistent with a social causation explanation, but in itself does not validate it.

Although the discussion of this issue in sociology has focused on MDD and psychological distress, the continuum versus discrete-category issue arises for other conditions as well. For example, based on a systematic review of the literature, van Os, Linscott, Myin-Germeys, Delespaul, and Krabbendam (2009) describe a proneness–persistence–impairment continuum model for psychosis, in the form of an extended psychosis phenotype blending gradually into clinical syndromes with prevalence rates for true subclinical psychotic experiences, psychotic symptoms, and psychotic experiences being 8%, 4%, and 3%, respectively. However, they also cite evidence that points to an underlying latent categorical structure of the population. They conclude that the population may be composed of two types of people (see also Linscott & van Os, 2010). Similar results are reported for substance abuse disorders (Muthén, 2006).

More generally, based on a review of taxometric studies of psychopathology, Haslam (2003) concludes there is well-replicated support for categorical models for some disorders (melancholia, eating disorders, pathological dissociation, and schizotypal and antisocial personality disorders) and dimensional models for other disorders (general depression, generalized anxiety, posttraumatic stress disorder, and borderline personality disorder). Thus, both perspectives garner some empirical support, but not to the extent that one perspective negates the other.

Discontent with the discrete diagnostic approach of defining and assessing mental illness now comes from within psychiatry, leading to calls for the incorporation of dimensional assessment in the forthcoming DSM-V. A thorough discussion of these issues is beyond the scope of this chapter (but see Chaps. 3, 7, and 9). Here, we focus on one recommendation that represents a fundamental reorientation in thinking about the nature of disorder—proposals for the dimensional assessment of higher-order constructs that reflect common biological, genetic, environmental, and psychosocial putative risk factors for families of disorders (as indicated by high comorbidity and symptom overlap), such as internalizing and externalizing disorders (Brown & Barlow, 2005; see Chap. 9).

Just as the DSM-III replaced earlier diagnostic systems based on etiology with an atheoretical set of seemingly objective criteria, this approach would move beyond description and back to a consideration of etiology (Brown & Barlow, 2005). This perspective stands in stark contrast to those who endorse the view that psychopathology is qualitatively different from normal human thought, feelings, and actions. Empirical tests of common dimensions of disorders compared to disorder-specific criteria sets currently are being sought with an arsenal of quantitative statistical techniques, such as taxometric analysis, confirmatory factor analysis, latent structural analysis, latent class factor analysis, factor mixture analysis, and growth mixture analysis (Muthén, 2006; see Chap. 9). However, it is often argued that categorical diagnoses are preferable for professional communication, clinical decision-making, or distinguishing between individuals with and without a disorder (cf. Kamphuis & Noordhof, 2009).

In the end, beliefs about the nature of disorder may be decided scientifically on the basis of statistical tests of quantitative data, although some are likely to remain steadfast to their predilections (Meehl, 1999). A different perspective for understanding psychological dysfunction is advocated by Mirowsky and Ross (2002): the subjective experiences of persons who are thought to have mental illness (Descartes vs. Locke), asserting that people experience symptoms not diagnoses. However, many people describe depression as qualitatively different from ordinary distress and apply the diagnostic label of depression to their experiences (Karp, 1996; see Chap. 2). Their accounts may reflect a variety of sociocultural influences, of course, including the medicalization of depression; thus, these people may be mistaken in concluding that depression is discontinuous with normal sadness. However, any external judgment of the objective truth or error of a person's subjective understanding of their feelings is immaterial when individual experience is used as the standard for understanding the phenomenon of mental illness (Aneshensel, 2002).

What are the implications for sociological research on mental health? Although the diagnostic/dimensional debate has been presented at times as an either/or choice, this perspective is inconsistent with the empirical evidence supporting both diagnostic and dimensional aspects of mental illness, and unnecessarily restricts the scope of sociological inquires. Attempts to identify a single preferred type of outcome for the discipline are misguided because some research questions are best addressed by measures of distress, such as studies of the impact of exposure to stress; other research questions are better served by diagnostic assessments of psychiatric disorder, such as investigations of stigma resulting from having a severe mental illness (Aneshensel, 2002). A single conceptualization of disorder and mode of assessment simply does not fit all types of inquiries.

The Medicalization of Deviance

The dimensional/diagnostic debate within psychiatry is predicated on the assumption that something is wrong with the individual, and that what is wrong constitutes mental illness. Some sociological research enthusiastically embraces this model; sociologists working within the psychiatric epidemiology tradition particularly tend to study discrete diagnostic entities as outcomes, assessing the prevalence of these conditions and their correlates (see Chap. 9). Other sociologists circumvent the diagnostic issue by studying symptom counts, but the term "symptoms" invokes the medical model, even if one prefers to ignore this implication. This ambivalence is evident throughout this volume as authors search for a vocabulary that does not rely on the nomenclature of psychiatry, for example, how to say depression without meaning MDD. However, still other sociologists reject the medical model's most fundamental premise—that what is wrong can legitimately be considered a disease or an illness, or, indeed, that anything is wrong with the individual at all.[4]

The original sociological alternative to the medical model was articulated in the 1960s and 1970s as the antipsychiatry critique, which portrayed mental illness as socially unacceptable behavior that is successfully labeled by others as being deviant. Key proponents of this position include Szasz (1970, 1974), who asserted that mental disorders are "myths"—labels used to control socially devalued behavior; Scheff (1966), who argued that the mental illness label is disproportionately applied to socially devalued persons; and Laing (1967), who maintained that these are sane responses to an insane world, responses that serve to dissociate the individual from otherwise intolerable circumstances. These views share the idea that there is nothing inherently bad about behaviors conventionally defined as mental illness. From this perspective, the fact that the term "mental illness" is used is more informative about the society doing the labeling than about the persons or behaviors being labeled. The causes of these behaviors are seen as being social, political, and economic, not medical.

Critics of labeling theory, however, conclude that empirical evidence contradicts some of its most crucial tenets and puzzle over its continuing influence within sociology (e.g., Gove, 1982, 2004). Most problematic is the notion that mental illness exists only in the eye of the beholder (Szasz, 1974). The most damaging evidence against this proposition is the presence of similar "symptom" clusters across very different cultures and social systems—sets of emotions, cognitions, and behaviors that

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[4] Sociologists usually distinguish between the concept of disease as a pathological condition and illness as the subjective awareness of being unwell. This distinction is less commonly used in the mental health area because of the controversy over whether these states can legitimately be considered diseases.

tend to occur together, to be subjectively distressing, to create impairment, and to put the person at risk of adverse consequences. That specific clusters of "symptoms," such as those defining MDD and schizophrenia, arise in heterogeneous settings among diverse peoples demonstrates that these phenomena have an objective reality apart from their subjective interpretation (Eaton, 1986). The general sameness of these clinical profiles has been proffered as evidence that these individuals are all suffering from the same thing, and, furthermore, that this "same thing" is mental illness.

The presence of similar states in dissimilar settings discredits the idea that mental illness is defined solely by the observer without any basis in the behavior of the labeled individual. It does not, however, demonstrate that these ubiquitous phenomena are illnesses. Indeed, in many settings, the states we refer to as mental illness are defined in other terms, for example, as evidence of a spirit attack resulting in *susto* or "soul loss" among indigenous peoples of Latin America. Across different settings, the states being described resemble one another, but the names applied to these states differ. Although the phenomena themselves exist, treating these phenomena as universal "symptoms" of a disease is specific to societies that apply the medical model. In other words, unacceptable behavior, incoherent thoughts, and painful emotions are ubiquitous phenomena, but the understanding of these conditions as diseases is culture-specific, largely a product of western society.

In accordance with the foregoing arguments, subsequent critiques of the psychiatric perspective have taken as given the deviant status of the behaviors identified as mental illness, as well as abnormal thoughts and feelings, but question the definition of these states in medical terms. In this regard, medicalization refers to the process by which previously nonmedical problems become defined and treated as medical problems, usually as an illness or disease (see Chap. 4). According to Conrad and Schneider (1992), the transformation of deviant behavior into mental illness is the original case of medicalization, and it continues to be a primary arena for medicalization, as evidenced by the dramatic increase in the number of mental illnesses in recent years (Conrad, 2007). These critiques cite the lack of evidence in support of the disease model, as discussed earlier, and emphasize several negative social, personal, and scientific consequences of adopting a medical model.

Conrad and Schneider (1980), for example, describe a historical shift toward the "medicalization" of deviance. Among the consequences they cite is a lessening of individual responsibility for one's behavior, insofar as the person who deviates from societal standards is considered "sick," not "bad." Moreover, the medical model diverts attention away from the social sources of deviance because it focuses on processes internal to the individual. An additional problem is the illusory moral neutrality of medicine, which obfuscates its social control function, a function that is more visible when exercised by the state or church. Furthermore, they argue that medicalization removes deviance from the realm of public discussion, because only medical experts are considered qualified to have opinions about illness.

Along these lines, Horwitz (2007b) contends that psychiatry has come to treat both the *natural* psychological results of the stress process and individual pathology as mental disorders. He goes on to assert that several social groups benefit from and promote the conflation of normal emotions with dysfunctions: psychiatry, the National Institute of Mental Health (NIMH), pharmaceutical companies, and mental health advocacy groups. Horwitz concludes that the result has been to overestimate the number of people who are considered to be disordered, to focus social policy on the supposedly unmet need for treatment, and to enlarge the social space of pathology in the general culture.

In conclusion, the sociology of mental health encompasses several distinct perspectives on the nature of mental illness. The interpretive viewpoint focuses on how individuals make sense of their experience of what is known as mental illness, and how these understandings shape their sense of self. The explanatory or etiological approach assumes at least implicitly that these states can meaningfully be understood as mental illness and sets as its prime task the identification of the social factors that are likely to cause these states. In contrast, the social constructionist approach takes as problematic the translation of aberrant states into illnesses. This orientation illuminates the subjective and relative nature of mental illness, but does not account for the original emergence of states that come to be construed as illnesses. Conversely, the etiological orientation addresses the latter issue, but does so by setting to the side issues concerning whether these states are legitimately viewed as illnesses. As Horwitz points out, each perspective takes as given what is problematic in the other perspectives. As a result, etiological and constructionist orientations have developed along largely independent lines (see Chap. 6). What is common across these orientations is the acknowledgment that some persons suffer from bizarre thoughts, painful emotions, and problematic behaviors—and that these experiences are deeply rooted in the society of which these people are a part.

Social Antecedents of Mental Illness

Although the origins of sociological interest in mental health can be traced to Durkheim's (1951/1987) *Suicide*, contemporary research has been influenced most directly by early community surveys of mental health conducted in the decades following World War II (e.g., Gurin, Veroff, & Feld, 1960; Hollingshead & Redlich, 1958; Srole, Langner, Michael, Opler, & Rennie, 1962). These studies demonstrated certain key regularities in the distribution of disorder, especially its inverse association with socioeconomic status (SES). These patterns remained evident in subsequent and more recent epidemiological research (e.g., Grzywacz, Almeida, Neupert, & Ettner, 2004; Kessler et al., 1994; Miech & Shanahan, 2000; Mirowsky & Ross, 1989c; Robins et al., 1984). For a review, see Lorant et al. (2003); see Chaps. 11 and 12.

Sociological research on the antecedents of disorder rests on a foundation of empirical research demonstrating repeatedly and convincingly that mental disorders are not randomly distributed throughout society but tend to cluster more densely within some social strata than others. Much of this volume is dedicated to describing and explaining these distributions. Here, it suffices to note that a person's chance of developing and maintaining a healthy mental state throughout the life course is influenced by his or her location within society as indexed by attributes such as gender, race or ethnicity, and SES. These characteristics also influence the ways in which disorder is likely to be experienced and expressed, such as whether distress is more likely to be expressed in somatic terms or psychological ones.

Some of the covariation between low social status and poor mental health reflects social selection processes, in which impairments in performing social roles due to disorder lead to downward social mobility, but there also is substantial evidence that favors a social causation interpretation of this association, in which disadvantaged social statuses increase the risk for disorder (for a recent review, see Saraceno, Lavav, & Kohn, 2005). For example, Ritsher, Warner, Johnson, and Dohrenwend (2001) conducted an intergenerational study of education and depression, finding that low parental education increased the risk of depression among their offspring, but that neither parental nor own depression predicted offspring education, occupation, or income. In contrast, Miech, Caspi, Moffitt, Wright, and Silva (1999) examined the period of adolescence and young adulthood, tracing the relationship between education and four mental disorders—anxiety, depression, antisocial disorder, and attention deficit disorder—finding that each disorder has a unique relationship with SES, and demonstrating that low SES is both a cause and a consequence of mental disorder. Thus, downward social mobility notwithstanding, social variation in the prevalence of disorder demonstrates that some aspects of mental illness are social in origin.

In addition to identifying social strata at especially high risk of mental disorder, sociologists also have sought to explain *why* these differentials exist. Although many disciplines are engaged in the task of uncovering the causes of mental illness, a key aspect of sociological research concerns the connection between these causes and one's location within the society (Aneshensel, 1992; Link & Phelan, 1995; Pearlin, 1989). True, some etiological factors tend to occur randomly. For example, virtually everyone is at risk of exposure to unforeseen natural disasters, exposure that may induce posttraumatic stress disorder (PTSD). However, social patterns in disorder generally cannot be caused solely by etiological factors that are uniformly or randomly distributed throughout society.[5] Sociological explanations for the occurrence of mental disorder, therefore, tend to emphasize causal factors that are associated with social statuses. Much of this explanatory work utilizes the stress process model (Pearlin, 1989, 1999; Pearlin, Menaghan, Lieberman, & Mullan, 1981; see Chap. 16). A fundamental objective of the stress process model is to explain the connection between low social status and high levels of psychopathology. To that end, one hypothesis is that persons of low social status tend to have high levels of distress and disorder because they are exposed to high levels of stress. Early tests of this hypothesis measured stress as the occurrence of negative life events and yielded three key findings: (a) exposure to these events accounted for only a very small amount of variance in mental health outcomes, (b) exposure to these events did not account for social group differences in psychopathology, (c) because these events are only loosely tied to the social statuses that define those social groups; specifically the inverse associations between SES and depression and psychological distress remained largely intact when exposure was taken into consideration (Aneshensel, 1992; Thoits, 1983).

Criticism of life events measures (e.g., Pearlin, 1983; Thoits, 1983) made it apparent that the universe of social stress was not operationalized in a manner consistent with the valid assessment of whether differential exposure to stress accounted for the relationship between social status and psychopathology (Aneshensel, 1992). In addition, Pearlin and associates (Pearlin & Schooler, 1978; Pearlin et al., 1981) identified chronic strains in major social roles as potent sources of stress with adverse mental health consequences. Wheaton (1994) subsequently conceptualized a multidimensional universe of stress that included dimensions of: seriousness, discrete to continuous duration, micro- to macrolevels, and life-course (see Chap. 15). His operationalization of this universe included chronic stressors, events, daily hassles, childhood traumas, and nonevents. Turner, Wheaton, and Lloyd (1995) then applied this comprehensive assessment of stressors and found, contrary to earlier work that relied on life events, substantial social status differences in exposure to stress by gender, marital status, and SES. Equally important for the goal of explaining mental health disparities, status differences in stress exposure accounted for a substantial portion of the association between these status characteristics and mental health outcomes. Thoits (2010) recently reviewed this literature and concluded that stress accounts for 25–40% of the variance in psychological distress and depressive symptoms. She further concludes that differential exposure to stress is one of the central ways in which gender, race/ethnicity, marital status, and SES come to be related to mental health.

Current work also continues to probe whether differences in exposure account for parallel differences in mental health outcomes. For instance, Boardman, Alexander, and Stallings (2011) recently compared trajectories of prior exposure to stress among black and white young adults and found that during adolescence, blacks had higher rates than whites of exposure to three of four stress trajectories, including high chronic stress, whereas whites had higher rates than blacks for only one trajectory, being relatively stress free over this time in the life course. They also find that race differences in exposure account for a modest amount of the higher level of depressive symptoms among blacks compared to whites. Using the same data, Adkins, Wang, Dupre, van den Oord, and Elder (2009) additionally find that stressful life events also account for much of the higher level of depressive symptoms among Hispanics compared to whites, but not the gender difference, although some of the higher level of depressive symptoms among females is due to their greater vulnerability to the depressive effects of these stressors.

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[5] Etiological factors may exert stronger effects among some social groups than others, thereby generating group differences in disorder even when the groups have similar exposures. These differences, sometimes referred to as differential vulnerability, are in actuality proxies for the differential distribution of the resources that help to prevent the deleterious effects of etiological factors (Aneshensel, 1992).

Social variation in the occurrence of mental disorders also has been linked to parallel differences in the resources that are available to people to cope with difficult life circumstances, differences associated with the social and economic statuses that people occupy. Coping, broadly defined, refers to any response people make to a stressor in order to avoid being harmed by it, including cognitive and behavioral responses that prevent, reduce, control, or make tolerable emotional distress (Folkman & Lazarus, 1980, Pearlin & Schooler, 1978). Of the many coping resources that have been studied, perhaps none is more quintessentially sociological than social support, which Thoits (1986) describes as coping assistance.

Although definitions of social support abound, most include whether a person's basic social needs—affection, esteem, approval, belonging, identity, and security—are satisfied through interaction with others (Cassel, 1976; Cobb, 1976; Thoits, 1983; see Chap. 17). A major emphasis in social support research concerns whether it is beneficial irrespective of the level of exposure to stress, the "main effects" model, or when exposure is high, the "stress-buffering" model (Dean & Lin, 1977). An influential review by Kessler and McLeod (1984) concluded that the mental health impact of stress is buffered by emotional and perceived social support, but not by membership in social networks. More recently, Thoits (2011) arrives at the same conclusion that social support, especially emotional and perceived support, buffers the harmful mental health impacts of stress exposure, but that buffering effects are smaller and less consistent than the direct effects of social support.

Thoits (2011) goes on to articulate a major new research agenda for the field: to identify the mechanisms through which social support exerts its mental health effects, acknowledging that this issue has been present since the beneficial effects of support were first recognized. She goes on to hypothesize seven potential mechanisms linking social support on the one hand to health and mental health on the other hand, including social influence/social comparison, social control, role-based purpose and meaning (mattering), self-esteem, sense of control, belonging and companionship, and perceived support availability. She contends that there are two broad types of support—emotional sustenance and active coping assistance—and two broad categories of supporters—significant others and experientially similar others—who specialize in supplying different types of support to distressed individuals. Thoits hypothesizes that emotionally sustaining behaviors and instrumental aid from significant others and empathy, active coping assistance, and role modeling from similar others should be most efficacious in alleviating the physical and emotional impacts of stressors. Testing these ideas promises to move our understanding of the functions of social support in important new directions.

Our discussion of resources would be incomplete without mentioning the ideas of mediation and moderation, which describe the ways in which resources function with regard to the relationship between stress and mental health. In mediation, resources are affected by exposure to stressors and, in turn, affect mental health, thereby accounting for some or all of the effect of exposure on mental health. This is an additive statistical model in which the mental health effects of the stressor are assumed to be the same across all values of the resource. Mediation occurs, for example, if economic hardship leads to depression by decreasing a sense of control over life, and the effects of economic hardship are consistent across levels of control. In contrast, moderation entails a statistical interaction between the stressor and the resource, such that the stressor has different mental health effects contingent upon the value of the resource. For example, moderation occurs if the depressive effects of economic hardship become weaker as a sense of control increases. This "buffering" function also is formulated in terms of the resource having a greater beneficial effect when stressors are present or are extreme than when stressors are absent.

The label "resource" implies a positive role in counteracting the effects of exposure to stress, just as social support implies a beneficial effect, but this is not necessarily or always the case. Psychosocial resources may mediate the effects of stress on mental health in two distinct ways, with diametrical interpretations depending upon how the stressor is related to the resource. A beneficial effect occurs when the stressor activates the resource (a positive association), as when people offer help to someone who has lost his or her job. Mediation in this instance is a form of stress-buffering because the total effect of the stressor has been reduced (Wheaton, 1985). However, stressors also may deplete resources (an inverse or negative association), as when job loss leads to decreased self-esteem. In this case, resources are the means by which the stressor comes to deleteriously affect mental health, but they do not counteract it.

Although studies on the mediating effects of psychosocial resources generally report that stressors are related to lower levels of the resources, there has not been sufficient research on this connection to rule out the possibility that in some circumstances stressors mobilize resources. There may not be a single answer to the question of whether stressors evoke an increase in resources or damage them. Instead, the connection may well vary depending upon the type of stressor and the type of resource. Specifying the conditions under which stressors activate resources is likely to be a productive line of future research into the stress buffering functions of resources.

The sociological approach also is distinctive in its emphasis on ordinary aspects of social life. Many clinical theories of psychopathology, in contrast, link abnormal emotions, thoughts, and behaviors to anomalous social circumstances—to traumatic childhood experiences, deviant family dynamics, chaotic environments, and so forth. From this perspective, mental illness is an aberration whose origins lie in deviations from normal experience. The sociological orientation views abnormality in individuals as a by-product of the routine functioning of society. From this perspective, pathology is not evidence of some breakdown in the social system, but rather the unfortunate yet inescapable outcome of society functioning as usual (Aneshensel, 1992). The arrangements that are functional for society as a whole are seen as creating conditions that are inevitably dysfunctional for some persons.

For example, involuntary unemployment is a potent source of emotional distress. Although losing one's job is not an ordinary or routine experience for most individuals, even in these difficult times, the occurrence of job loss is a commonplace feature of most contemporary economies. Thus, some individuals will unavoidably experience unemployment and its mental health consequences. The question is not whether there will be unemployment-related mental health problems, but rather who is at greatest risk for unemployment and, hence, these conditions.

In summary, sociological research into the social antecedents of mental illness tends to adopt a structural approach: the sources of disorder are sought in the basic social arrangements that constitute society. Within this framework, a major goal is to explain why disorder is more common among some segments of society than others. The emphasis is on etiological factors that are consequences of one's location within society in terms of risk that derives from systems of social stratification and inequality. This approach often utilizes the stress process as the connection between structure and mental health outcome: high levels of disorder among certain groups can be attributed to their extreme exposure to social stressors or limited access to ameliorative psychosocial resources.

However, other models for linking social location to mental health articulate distinctly different mechanisms. For example, McLeod (see Chap. 12) proposes that some of the relationship between social status and mental health is generated by processes of social evaluation, whereby people who occupy lower status positions come to perceive themselves as disadvantaged relative to others—perceptions that are harmful to their mental health, including for example, a sense of relative deprivation. Yet, other theories are reviewed in the chapters that link social status (e.g., SES, race/ethnicity, gender, age) and social roles (e.g., work, marriage, and the family) to mental health. For example, Chap. 14 emphasizes gendered roles and practices. The tie that binds these theories together is the goal of explicating origins of psychopathology in ordinary aspects of social organization and routine social processes.

Social Consequences of Mental Illness

The evidence concerning social consequences of mental illness is equally compelling. Being identified as mentally ill is itself a social transformation. One's identity is altered, often irrevocably, to include what is generally regarded as a socially undesirable and stigmatizing attribute. This transformation has profound repercussions for one's subsequent social relationships. The occurrence of mental illness sets in motion a variety of social processes with important consequences for the person with the disorder, for his or her family, and for society in general. From this vantage point, questions concerning the nature of mental illness and its antecedents give way to questions concerning its consequences. The occurrence of something identifiable as mental illness is taken as given, and the focus of inquiry shifts to accounting for its social repercussions. Although research into the social antecedents of mental illness tends to use a structural approach, research into its consequences more often uses a symbolic interactionist framework.

This approach predominates in research concerned with one of the most consequential issues, the labeling of persons as mentally ill, especially the adverse impact of stigma for psychiatric patients (see Chap. 25). One aspect of this work concerns the ways in which people come to see themselves as being "troubled." For example, Karp (1996) observes that depressed people initially attribute their emotional distress to external situations, and convert to an internal attribution that "something is seriously the matter with me" when the situation changes but the distress continues (see Chap. 2). Thoits (1985) suggests that such self-attributions are likely to arise when the person becomes aware that his or her emotional reactions are inappropriate to the situation, a discrepancy that is also likely to lead others to view the person as emotionally disturbed.

In this framework, the individual comes to adopt as his or her own the real or imagined responses of others, that is, to view the self as others do, as a mentally ill person. Not all distressed persons, however, come to see themselves as being troubled or in need of help. In this situation, the person's self-perception may be seriously at odds with the perceptions of others, including importantly family members and agents of social control, such as the police or mental health professionals. These conflicting perspectives may lead to the imposition of an official label as mentally ill—a label the person may strenuously resist.

Work conducted within this tradition usually sets to the side questions concerning the origins of the primary deviance (i.e., the signs and symptoms of mental illness) that prompts the application of the label "mentally ill." Rather, it deals with the secondary deviance and other consequences that result from having had this label applied to oneself. The work of Scheff (1966) was especially influential in the development of this concept, particularly his controversial assertion that labeling is the single most important cause of a career of mental illness. From this perspective, a stable pattern of secondary deviance emerges because persons who are labeled mentally ill are treated in ways that tend to reinforce social stereotypes of the mentally ill; in particular, they may be punished when they attempt to return to their customary roles and rewarded for conforming to the role of mental patient. Social attributes are important not because they contribute to acts of primary deviance, but because they shape whether these acts are construed by others as mental illness.

Critics of labeling theory argue that stigmatization of mental illness is relatively rare and inconsequential, and, therefore, not capable of generating the adverse outcomes observed among mental patients (e.g., Gove, 1982). Instead, these outcomes are a result of the deviant behavior itself. Proponents of modified labeling theory, however, dispute the idea that stigmatization is negligible. At issue is whether labeling effects offset any benefits of psychiatric treatment, which entails not only therapy but also labeling in the form of diagnosis (Link, Struening, Rahav, Phelan, & Nuttbrock, 1997; Rosenfield, 1997; see Chap. 25).

Within this context, the issue of self-attribution of mental illness is crucial because it differentiates coerced help seeking and involuntary commitment from help seeking by choice and elective treatment. Classic sociological work, such as Goffman's (1961) analysis of asylums as total institutions, necessarily emphasized processes within mental hospitals, because this was the site of most treatment, at least for serious and persistent mental illness. Following deinstitutionalization, treatment research has emphasized pathways to treatment among the general population. A key sociological issue with regard to treatment is the identification of the social determinants of help-seeking behavior, especially the tendency of distressed persons to not seek help.

Beyond the mental health treatment system, another social institution that may become an unwanted part of a person's life as a consequence of being identified as having a mental health problem is the legal system. Mental health problems bring with them an increased likelihood of coming into contact with the civil and/or criminal justice system, in the form of encounters with the police, arrest, incarceration, involuntary hospitalization, outpatient commitment, mental health courts, or other forms of coercion or intervention (see Chap. 27).

Finally, the social consequences of mental illness necessarily include its impact on the family. One strand of inquiry addresses the role of the family in accounting for variation in the course of disorder, including its duration and chronicity, most notably with regard to the relapse of former psychiatric patients. Other work examines the impact of patients upon the health and well-being of family members. In this instance, mental illness is treated as a cause of stress and emotional distress for others (see Chap. 26).

Overview of the Handbook

In summary, mental illness is of interest to sociologists because social arrangements and processes define the very construct of mental illness, shape its occurrence, and channel its consequences. These three themes form the framework around which this handbook is organized. Specifically, the chapters that follow examine mental illness as a social product, analyze its social etiology, and explore its social impact.

Part I addresses the first major theme of this handbook, the various ways in which mental health and illness are understood by persons with a mental illness, by the public, and by mental health professionals and social scientists. The section begins with a consideration of how the person with mental illness understands the problems he or she is experiencing, especially how this understanding may evolve over time to include an increasing commitment to a medical model and to include "person with a mental illness" as a significant aspect of his or her identity (Chap. 2). Chapter 3 describes mental disorders as understood and classified by the field of psychiatry, focusing on diagnoses that are especially relevant to sociologists, and discusses how this medical model can productively inform the work of sociologists. Chapter 4 examines the process of medicalization, the transformation of a condition from the realm of ordinary experience into a mental illness, and the expansion of this process to include a seemingly ever increasing number of conditions. The discussion of medicalization is followed by the subsequent chapter (Chap. 5) that reviews evidence on how the public understands these same problems, their causes, and appropriate means of treatment; it documents as well an increasing acceptance by the public of a medical model. The concluding chapter in this section (Chap. 6) seeks to illuminate the contributions made by alternative approaches to defining mental health.

Part II continues with issues of definition and conceptualization, but in a more procedurally oriented fashion, dealing with alternative measurement and analytic strategies (Chaps. 7 and 8). It also sets the stage for the substantive sections that follow by introducing key methodological issues that cut across specific content areas.

The second major theme of this handbook, the social origins of mental illness, is taken up in Part III. It begins with a general description of how mental illness is distributed throughout society (Chap. 9), followed by several chapters that delve in greater detail into the connection between social stratification and mental illness. Specifically, Chaps. 10 through 14 address age; social class; social stratification and inequality; race, ethnicity, nativity, and culture; and gender. These chapters describe how mental illness varies according to these social characteristics. Equally important, they present theoretical perspectives on the origins of differences and review empirical evidence concerning how these social patterns are created and maintained.

Part IV also deals with social causation, emphasizing elements of the stress process. The first chapter (Chap. 15) defines the universe of stressors individuals may encounter in the social world, whereas Chapter 16 presents a conceptual framework linking the organization of society to components of the stress process. This section also examines key psychosocial factors—social integration and support (Chap. 17), self and identity (Chap. 18), and the sense of personal control (Chap. 19)—that influence the mental health impact of social stressors and also influence mental health in their own right.

Part V expands this social causation perspective to consider how multiple social institutions influence the likelihood of experiencing poor mental health outcomes. These institutions include the family (Chap. 20) and work (Chap. 21), which often are the locus of people's primary social roles and relationships. The role of religion is addressed as well in this section (Chap. 22) because religion is often a repository of social relationships, meanings, behaviors, and sometimes stressors that play a central role in structuring individuals' social worlds. This section ends with a chapter on neighborhoods, because the neighborhood frequently serves as a social context in which people's daily lives and social relationships are formed and experienced (Chap. 23).

The third theme of this handbook is taken up in Part VI, which shifts attention to the social consequences of mental illness. It begins with an analysis of the social dynamics of seeking help for mental health problems (Chap. 24). Chapter 25 deals with stigma and its impact relative to any benefits of treatment. Chapter 26 delves into the impact of mental illness on the family. Finally, Chapter 27 addresses responses of the justice system to persons with mental health problems and experiences these persons may have within the justice system.

Part VII concludes with two chapters that present frameworks examining how the diverse factors considered in this volume are integrated within people's lives. The penultimate chapter (Chap. 28) takes a life-course perspective, examining how mental health problems ebb and flow over time and emphasizing the connections between mental health and the other trajectories of a person's life, such as work and family. The final chapter (Chap. 29) examines the internal organization of a career of mental illness as it evolves over time. Both of these chapters consider not only the onset of disorder but also its course over time and its cumulative impact on people's lives.

Mental illness is a fertile field for sociological inquiry, then, because social characteristics and processes are implicated in both the etiology of disorder and in its consequences. The characteristics that have been most important to sociological inquiry have been those that signify status within stratified social systems, including SES, gender, age, race, and ethnicity. Also attracting considerable sociological attention are characteristics that reflect the occupancy of major social roles, especially family and work roles. Role-related research also has examined the mental health impact of entrances into and exits from social roles, as well as the quality of experience within roles, especially their capacity to generate stress or provide social support. These overarching issues link the sociology of mental health to mainstream sociological interests in social stratification. Attention to the ways in which social contexts shape how mental disorder is understood and experienced further places the study of mental illness within a sociological framework by demonstrating how mental illness comes to be socially constructed and understood.

The sociological approach articulated in this volume emphasizes commonalities in experiences among people having similar social characteristics as distinct from the personal experience of any single person. In some important respects, each instance of mental illness is distinctly different from all others. The trajectories of an individual's personal history that converge and combine in the experience of confused thinking, strange behavior, or emotional distress are unique, as are the interpersonal actions and reactions that shape the course of disorder and its aftermath. Nevertheless, social regularities in the occurrence and consequences of disorder are not produced by idiosyncratic experience. This volume is dedicated to identifying and explaining these mental health disparities.

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Part I
Conceptualizations of Mental Health and Illness

Chapter 2
Listening to Voices: Patient Experience and the Meanings of Mental Illness

David A. Karp and Lara B. Birk

Abbreviation

DSM Diagnostic and Statistical Manual of Mental Disorders

One of the most important missions and mandates of sociology has been to "give voice" to those who have been forgotten, made socially invisible, or otherwise marginalized. Sociologists have always been ideologically prone to "take the side of the underdog" (Becker, 1967). As well, Peter Berger (1963) has remarked that an "unrespectability" motif characterizes much sociological work since the stories and experiences of those who are dispossessed and disenfranchised are as conceptually important as the accounts of those inhabiting society's mainstream sectors. Indeed, early American sociology, beginning with the "Chicago School" (see Fine, 1995), was devoted to documenting a wide array of relatively invisible urban worlds including those of hoboes (Anderson, 1923), professional thieves (Sutherland, 1937), gang members (Thrasher, 1927), immigrants (Thomas & Znaniecki, 1918), and slum dwellers (Zorbaugh, 1929).

Similarly, anthropology teaches us that the meanings persons give to their lives arise from their immediate social contexts. Of particular interest for this review are those anthropological efforts demonstrating that the meanings attached to mental illnesses, and the culturally expected responses to them, vary dramatically from society to society (Kleinman, 1980, 1988a; Kleinman & Good, 1985). This work effectively shows that such presumably common-sense notions as deviance, mental disorder, mental illness, and insanity are largely social constructions (Berger & Luckmann, 1967).

The sociological analogue to an anthropological perspective is found in those theoretical approaches to social life that focus on basic questions of meaning making: "How do human beings impose order, coherence, and intelligibility onto their lives? How do we go about the business—the eminently social business—of making sense of our life situations? How do people understand complicated life circumstances and how are their behaviors, emotions, and attitudes linked to such interpretive processes? How are our interpretations of objects, events, and situations connected to our social locations?" While such fundamental questions are properly linked to phenomenological (Schutz, 1962), postmodern

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D.A. Karp (✉) • L.B. Birk
Department of Sociology, Boston College, 140 Commonwealth Avenue, McGuinn Hall 426,
Chestnut Hill, MA 02467-3807, USA
e-mail: david.karp@bc.edu

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(Collins, 1990; Smith, 1987) and feminist (Devault, 1999; Reinharz, 1992) theories and methods, they are at the very core of "symbolic interaction theory" (see Prus, 1996; Stone & Farberman, 1970).

Although early "pragmatists" such as George Herbert Mead (1934) and Charles Horton Cooley (1964) provided the conceptual infrastructure for a distinctive sociological social psychology, the sociologist Herbert Blumer articulated the essential assumptions of symbolic interaction theory. In his book entitled *Symbolic Interaction: Perspective and Method* (Blumer 1969), Blumer suggests that this distinctive theory rests on three principles: (1) No objects, events, or situations carry intrinsic meanings; (2) Meaning creation is a collaborative venture, the product of interaction in particular settings; and (3) Meanings are constantly in a state of transformation. Blumer then outlines the research requirements presumed by these premises when he says that "…Since action is forged by the actor out of what he perceives, interprets, and judges, one would have to…perceive objects as the actor perceives them, ascertain the meaning of objects, events, and situations in terms of the meaning they have for the actor…. In short, one would have to take the role of the actor and see the world from his standpoint" (Blumer, 1969, p. 68). Methodologically, this means observing, whenever possible, the lived worlds of those we study and listening attentively to their stories.

Despite the seemingly obvious assertion that studying the construction of meanings is absolutely central to understanding human experience (and, in turn, our emotions, attitudes, and behaviors), such an approach is too often slighted, especially among those who imagine themselves to be following the precepts of "science." The idea that social life is an evolving human construction appears inhospitable to the goal of documenting firm and unchanging empirical "realities." Collecting and recounting narratives may be seen as an interesting exercise that yields a measure of insight. However, for those committed to a positivistic vision of science, a primary goal of research is to gather statistical data from large samples of individuals in order to establish fundamental causal connections among variables. While the tendency to slight the narratives of individuals is clear in the study of all aspects of social life, such an omission is perhaps most awkwardly and inappropriately evident in the efforts to learn about the experience of mental illness.

While we maintain that all social experiences require interpretation and meaning making, some life circumstances are profoundly and deeply problematic. These situations demand especially arduous interpretive efforts by those trying to make them coherent and sensible. Certainly serious illnesses of all kinds—perhaps mental illnesses in particular—are among life's most perplexing situations. Yet, medicine, committed to seeing illness only in biological terms, largely neglects patient accounts. The psychiatrist and anthropologist Arthur Kleinman has written extensively about the importance, yet relative neglect, of patients' stories. In his book entitled *The Illness Narratives* (Kleinman 1988b), Kleinman eloquently argues the importance of privileging the lived expertise of patients. He remarks (1988b, p. xiii) that

> Nothing so concentrates experience and clarifies the central conditions of living as serious illness…. Illness narratives edify us about how life problems are created, controlled, made meaningful. They also tell us about the way cultural values and social relations shape how we perceive and monitor our bodies, label and categorize bodily symptoms [and] interpret complaints in the particular context of our life situation….

At the same time, the sociologist Arthur Frank (1995, p. 25) observes that

> The voices of the ill are easy to ignore, because these voices are often faltering in tone and mixed in message…. These voices bespeak conditions…that most of us would rather forget our vulnerability to. Listening is hard, but it is also a fundamentally moral act…. [I]n listening for the other, we listen for ourselves. The moment of witness to the story crystallizes a mutuality of need, when each is *for* the other (italics in the original).

The difficulty of listening is compounded in the case of the mentally ill since stories told in the middle of an illness episode are often chaotic and seemingly indecipherable. Moreover, stereotypes about the mentally ill and the stigma attached to their conditions lead persons, doctors certainly included, to believe that patients are simply incapable of providing meaningful versions of their experiences (Hornstein, 2009).

One shortcoming of many mental illness studies is that we tend to hear the voices of experts (physicians, psychologists, nurses, social workers, academics) while the voices of those with mental illness are all too often excluded. Drowned out in the process is what it actually feels like to have a mental illness. Hearing one's "official" diagnosis for the first time, learning to cope with illness, disclosing to significant others or colleagues, taking psychiatric medications, and assessing psychiatric experts are major hurdles in the lives of persons with mental illness, and yet we do not hear enough about the ways in which they make meaning around these challenges. While we certainly need statistical analyses describing epidemiological patterns, causal models, and correlations, such studies need to be complemented by those conveying the extraordinarily difficult experience of living with a mental illness. Studies of feeling disorders that do not attend to the feelings involved are, at the least, incomplete.

We must note that the earlier writings of Michel Foucault (1973), Erving Goffman (1961), Thomas Scheff (1966), Thomas Szasz (1961), and Ronald Laing (1967), among others, provided the basis for a robust antipsychiatry movement during the 1960s and 1970s. Their writings collectively questioned the very existence of mental illness and, thus, the "medical model" as the only approach to helping persons with "problems in living." This writing remains vibrantly influential for those who would accord as much value to the experiential expertise of patients as to the professional expertise of mental health practitioners. Indeed, there has been something of a renaissance in qualitative research since the early 1980s and a corresponding uptick in the number of studies focused on mental patient narratives (see, e.g., Estroff, Lachicotte, Illingworth, & Johnston, 1991; Karp, 1996, 2006; Schreiber, 2001; Smardon, 2008; Weinberg, 2005). Still, such studies represent a relatively small fraction of inquiries into mental illness.

Perhaps the most conceptually revealing studies of being mentally ill are those in which researchers enter directly into the lived worlds of those persons. Such studies attend to the voices of afflicted persons while documenting first-hand the ways they daily negotiate their illnesses within particular cultural contexts. One such work, properly considered a classic, is Sue Estroff's (1981) *Making it Crazy: An Ethnography of Psychiatric Clients in an American Community*. Estroff, trained as an anthropologist, wanted to learn how chronically ill patients released from psychiatric hospitals during the period of "deinstitutionalization" adapted in a community residential treatment program.

As suggested by the book's title, her close observations revealed that many patient adaptations in the face of institutional rules and restrictions (e.g., the obligation to take powerful medications, the need to rely financially on government programs, placement in "protected" workshops) had the unintended consequence of affirming their identities as "crazy." More recently, the sociologist Darrin Weinberg (2005) used similar methods to study two ideologically different treatment programs for addiction and insanity. Both Estroff's and Weinberg's studies demonstrate that conceiving of insanity as either human constructions or independent illness realities is a false dichotomy. Rather, these qualitative studies based on "thick description" (Geertz, 1973) illustrate that mental illness is both an independent reality and a social product.

This introduction is meant to suggest that a static picture of "having" mental illness does violence to the complexity of an ongoing, emergent experience. We need to be committed to methodological and theoretical approaches that satisfactorily convey the moving, processual, and context-bound nature of any illness experience. Research committed to systematically gathering, carefully organizing, and then re-telling stories is the approach best suited to capturing the diverse and nuanced processes associated with mental illness. Thus, our argument for the necessity of giving voice to the mentally ill is premised on the idea that such illnesses emerge over time and take on multiple shades of meaning depending upon the particular social circumstances of individuals.

The Triumph of Biological Psychiatry and the Denial of Patient Expertise

While there have been relatively recent efforts to foster the development of “narrative based medicine” (see Roberts, 2000), such efforts appear to have had little effect in the field of psychiatry. Indeed, the persistent movement of psychiatry since the early 1980s has disproportionately emphasized symptoms over stories. If we believe that a renewed emphasis on narrative would promote more effective healing by legitimating the expertise of the mentally ill, we must first understand the historical processes that have undermined patients’ voices. There is wide agreement among observers of psychiatry’s evolution (e.g., Caplan, 1995; Healy, 1997, 2002; Horwitz & Wakefield, 2007; Luhrmann, 2000; Valenstein, 1998) that concerns about the scientific status of psychiatric medicine has relentlessly propelled the field toward biologically reductionist explanations of emotional problems.

Beginning with the “birth of the asylum” in the seventeenth century, “insane” persons were thought to be like brutish animals that needed to be tamed and controlled. Things improved somewhat in the early 1800s once doctors became the sole arbiters of the treatment of the mentally ill. Still, the mentally ill were subject to dreadfully inhumane “cures” based on alleged scientific advancement (Whitaker, 2002). The early twentieth century saw the emergence of psychotherapy and the consequent “triumph of the therapeutic state” (Rieff, 1966). Of course, Sigmund Freud’s psychoanalytic theory became the basis for psychodynamic approaches in psychiatry. Paradoxically, the treatment of mental disorders until the early 1980s was based on carefully parsing patients’ histories and personal accounts. A major turning point in the history of psychiatry was the discovery of major tranquilizers during the 1950s. By the early 1980s, the paradigm in psychiatry had shifted from “disorders of the mind” to “diseases of the brain” (Luhrmann, 2000).

When one looks at the numbers, the implications of this extraordinary paradigm shift become readily apparent. In the four editions of the Diagnostic and Statistical Manual of Mental Disorders (DSM), psychiatric experts have “discovered” an astonishing number of new brain diseases (see Kirk & Kutchins, 1992). While the classification system of the first two versions of the manual closely followed the logic of psychoanalytic thinking popular at the time, the 1980s saw a radical disappearance of such language. *Diseases* of the *brain* abruptly replaced intrapsychic conflicts. The numbers tell a dramatic story. In 1953, the DSM named 60 psychiatric disorders. In 1969, the number of diagnostic categories had doubled to 120. In 1987, over 200 diagnostic categories were listed. The current DSM describes over 350 diagnoses. The newest version of the DSM to be published in 2013 promises yet again an increase in the number of diagnostic categories.

We are hard-pressed to see a nearly fivefold increase in the number of psychiatric abnormalities since 1953 as simply the product of dispassionate scientific inquiry. The transition from disorder to disease and the proliferation of such diseases is equally likely a function of cultural, economic, and political processes. In fact, the sharpest critics (Breggin, 1991; Glenmullen, 2005; Healy, 2002) of psychiatry’s current stance maintain that, except for a few major psychotic illnesses, there is no evidence that the hundreds of conditions listed as brain diseases in the DSM warrant that designation. Diagnostic disagreements (Brown, 1987) and the extremely tenuous connections among symptoms, diagnoses, treatments, and therapeutic outcomes significantly undermine the validity of the disease model in psychiatry. Thomas Szasz (2001, p. 25) puts it this way:

> Asserting that a particular person’s problem is a disease because the patient or others *believe* it is a disease, or because it looks like a disease, or because doctors *diagnose* it as a disease, and treat it with drugs as if it *were* a disease, or because it *entitles the subject to be qualified as disabled*, or because it *presents an economic burden to the subject’s family or society* – all that is irrelevant to the scientific concept of disease (Italics in the original).

According to Horwitz and Wakefield (2007), the enthusiastic embrace of biological explanations was a response to the chaotic condition of psychiatry at the time. Prior to 1980, critics doggedly attacked psychiatry as a “pseudoscience,” perhaps due to the widespread disagreements between different theoretical perspectives and the confusion arising out of radically conflicting research studies. The profession became eager in this environment to institute a “theory neutral” set of diagnostic criteria for disorders such as depression and thus establish itself as a scientific enterprise. Doing so would both ensure greater consensus among practitioners and enable more consistent epidemiological research on mental disorders. Psychiatrists wanted to convince themselves and others that troubled individuals need their chemical interventions just as badly as someone with diabetes needs insulin. Such a bid for medical legitimacy bears a synergistic relationship with the interests of pharmaceutical companies that make billions of dollars selling psychotropic medications (Angell, 2005). In something of an unholy alliance, the American Psychiatric Association “creates” diseases that, in turn, provide pharmaceutical companies the opportunity to invent new and profitable drugs. Finally, prompted by direct-to-consumer advertising, increasing numbers of patients seek the help of psychiatrists, thus securing the field’s professional status.

The claim has been repeatedly made that difficulties such as clinical depression are the result of deficits of certain neurotransmitters in the brain. For example, drugs like Prozac, Zoloft, and Celexa are thought to ameliorate depression by increasing levels of serotonin in the brain. Despite such repeated claims about serotonin deficiencies, this hypothesis has never been verified. Indeed, there is mounting evidence (Kirsch, 2010) that the latest “wonder” drugs are only marginally more effectiveness than placebos. Despite a range of conceptual and scientific misgivings, contemporary psychiatry remains firmly committed to a “medical model” of psychiatric diseases. The result of such a biologically deterministic model of human pain has been the nearly total muting of patients’ perspectives, accounts, and interpretations of their suffering.

The consequences of psychiatry’s full embrace of biological explanations for mental illness cannot be understated. The virtually hegemonic power of psychiatry to define the line between the normal pains of living and pathological disease has greatly expanded the number of people deemed sick and in need of treatment (Horwitz & Wakefield, 2007). We might now legitimately ask the moral and political question, “Who owns and controls human feelings, thoughts, and behaviors?” In addition, the pervasiveness of psychiatry’s biological narrative about the causes of human suffering has greatly deflected attention away from the structural sources of human distress. We now rarely ask whether so-called mental illnesses might often be a normal response to pathological social structures. Biologically deterministic explanations of suffering also create a sense of helplessness among patients who see themselves, after all, as victims of broken brains. In the words of the medical historian David Healy (2002, p. 355), there has been an evolutionary movement “from a theocracy through democracy to a sanitocracy.” Consequently, we now consider how listening to patients’ voices has potentially critical implications for their medical and political liberation.

The Politics of Listening

Those who study mental illness can draw many important insights from other theoretical perspectives for understanding marginalization, especially postmodern feminist theory, critical race theory, and critical disability theory. Each of these theoretical paradigms developed as a critical response to early ideas spawned by the political movements that fought, respectively, for women’s rights, civil rights, and the rights of persons with disabilities. Each has critical insights about the experience of marginalization that can be applied to the study of mental illness (or following Michel Foucault, “madness studies”).

Critical race theorists Lani Guinier and Gerald Torres (2002) expand on the idea of “the miner’s canary.” They argue, in a book of the same title, that like the canary whose distress call alerts miners to impending danger, frustrations expressed by subjugated racial minorities are indicators that something is wrong with the functioning of American democracy. Therefore, it is crucial that "we," whether members of racial minorities or the majority, listen to the canary's distress call. To do so is relevant not only for the potential amelioration of the plight of the canary but for all of society:

> Those who are racially marginalized are like the miner's canary: their distress is the first sign of danger that threatens us all. It is easy enough to think that when we sacrifice this canary, the only harm is to communities of color. Yet others ignore problems that converge around racial minorities at their own peril, for these problems are symptoms warning us that we are all at risk…. The metaphor of the miner's canary captures the association between those who are left out and social justice deficiencies in the larger community…. One might say that the canary is diagnostic, signaling the need for more systemic critique…. These pathologies are not located in the canary. Indeed, we reject the incrementalist approach that locates complex social and political problems in the individual. Such an approach would solve the problems of the mines by outfitting the canary with a tiny gas mask to withstand the toxic atmosphere (Guinier & Torres, 2002, pp. 11–12).

Similarly, we maintain that the voices of the mentally ill are equivalent to the miner's canary. Their stories are alerting us to the fact that something is wrong with psychiatry's overreliance on a biological model of suffering. As such, it behooves us to listen well to their voices as indicators of both the suffering of individuals and of a social structure that amplifies and sometimes even produces such suffering. In other words, it is not enough to listen with the aim of reducing individual pain. We must also listen if we hope to improve the system's ability to respond to human suffering more generally. Psychiatry's systemic, if unwitting, preference for attending to biological, biochemical, medical, or even genetic factors over subjective experience has harmful ramifications, given that meaning making is at the heart of subjective experience.

Sociologists of mental illness concerned with the subjective experiences of the mentally ill can glean significant lessons from the collective social critique of people who have been marginalized on the basis of gender, race and ethnicity, and disability. After all, diverse experiences of marginalization generate critical insights that would be familiar to anyone marginalized because of mental illness. Central to our discussion here is each group's common emphasis on the political significance of storytelling. In each case, the narratives of the oppressed, subjugated, marginalized, or otherwise voiceless have spawned social movements devoted to the fight for the rights of women, people of color, and persons with disabilities. Storytelling has been foundational to the development of the "class consciousness" that gave rise to each of these movements.

The feminist insight that the "personal is political" meant that groups of women sharing life stories are not merely commiserating. Conversation is a form of "consciousness-raising" and, thus, itself constitutes political action. Over time, individual stories of struggle collectively formed a larger structural narrative of the struggle of women as a class. It was not long, of course, before women of color challenged this master narrative, for it spoke only to the experiences of privileged white women and resulted in the further marginalization of nonwhite or even less privileged white women. Standpoint theory (Collins, 1990; Haraway, 1988; Harding, 1991; Hartsock, 1983; Smith, 1987) was one strand of feminist thought that incorporated multiple groups and, thus, bears particular relevance for those interested in the sociology of mental illness.

Early on, those theorists identified with standpoint theory (Harding, 1991; Smith, 1987) argued that knowledge retrieved through scientific methodology and abstract, rational thought is not the only valid form of knowledge. Equally valid is the knowledge derived from one's subjective experience of the world, which itself is determined by where one stands in relation to those in power. Each "standpoint" or perspective necessarily comes from a particular social position that both enables and limits one's vision on the world. Donna Haraway's (1988) notion of "situated knowledges" extended this assertion by positing that knowledge is always *embodied* (generated from and enabled by our specifically situated selves) and *partial* (incapable of grasping the totality of reality). For Haraway, to claim neutral and complete "objectivity"—a "vision from everywhere and nowhere" at once—is a kind of "god trick," a pretense made possible by a privileged relationship to power that protects the interests of those whom such "objectivity" serves: typically, white Western males.

In a related vein, Patricia Hill Collins (1990) advocated that sociology should welcome "outsiders within" because of the distinctive standpoint they bring to existing sociological paradigms. Black women were, for Collins, a prime example of "outsiders within." Unlike white women, they have been doubly marginalized by both their gender and their race and, therefore, embody an awareness of the interlocking nature of systems of oppression. White women did not then recognize that although they were oppressed in one dimension (gender), they were oppressors in another (race). In this way, the privilege of white women prevented them from fully appreciating the complexity of their own relationship to power. Black women, on the other hand, could "produce distinctive oppositional knowledges that embrace multiplicity yet remain cognizant of power" (Collins, 1998, p. 8). Collins' notion of the interlocking nature of various systems of oppression (what she has called the "matrix of domination") recognizes that all systems of oppression, whether based on race, class, gender, sexuality, religion, age, disability, or mental health status, work in conjunction with and depend on one another, ultimately forming a single system of domination and power. Being oppressed along multiple dimensions cannot be understood using a simple additive model.

Feminist theorists such as Haraway and Collins have articulated a truth with enduring relevance for those who wish to understand the subjective experiences of the mentally ill. Namely, when persons do not live up to unspoken cultural norms, they can view their subjective experiences as a situated knowledge that provides a window on self-interested systems of power and privilege. Audre Lorde (1980, p. 203) spoke of this perception of always standing beyond the normal:

> Somewhere on the edge of all our consciousness there is what I call the mythical norm, which each of us knows within our hearts is "not me." In this society, that norm is usually defined as white, thin, male, young, heterosexual, Christian, and financially secure. It is within this norm that the trappings of power reside. Those of us who stand outside that power, for any reason, often identity one way in which we are different, and we assume that to be the primary reason for all oppression, forgetting other distortions around difference some of which we ourselves may be practicing…. There is a pretense to a homogeneity of experience…that does not in fact exist.

Lorde argues that individuals need to embrace their differences and outsider status to realize the inherent creativity and critical insight they make possible. For the mentally ill, mental health is another dimension along which one can stand outside the mythical norm, and yet it is this very status as an outsider that gives the mentally ill a valuable perspective on the otherwise invisible norms propelling their marginalization.

Those who study mental illness can equally draw lessons from critical race theory (Bell, 1992; Crenshaw, 1995; Delgado, 1996; Gotanda, 1995; Harris, 1995; Lawrence, 1993; Matsuda, Lawrence, Delgado, & Crenshaw, 1993; Williams, 1991), offering powerful insights based on experiences of racial marginalization. Critical race theorists, like feminist theorists, emphasize the subversive power of stories due to the inherent connection between the personal and political, underscoring the fact that the dominant cultural narratives are invariably the narratives of those in power. The seeming normativity of these narratives only works to mask their hegemonic nature. Thus, a central method of political resistance and consciousness-raising in critical race theory is the act of "counter-storytelling."

Critical race theorists use counter-storytelling as a tool for challenging and disrupting racial dominance. Such stories both create meaning and also debunk myths that work to sustain the dominance of the white race (e.g., see Patricia Williams, 1991). According to Solórzano and Yosso (2002, p. 26), counter-storytelling is a "method of telling the stories of those people whose experiences are not often told." The dominant stories being countered serve to maintain the privilege of whites, men, the middle and upper classes, heterosexuals, and we would add, those free of mental illness. By defining these locations in the social structure as normative, dominant narratives implicitly label all who fall outside the norm as deviant, flawed, wrong, inferior, or sick. As critical race theorists often point out, however, dominant narratives do not only maintain the privilege of those in power but also, function to discredit and silence the voices of those who are subjugated, dominated, or oppressed. In a similar fashion, we argue that the voices of the mentally ill are discredited and silenced by dominant cultural narratives that presume mental health as the unspoken norm, defining all other mental states as deviant, deficient, and even dangerous.

The field of disability studies provides yet another theoretical perspective that offers critical insights on the experience of being mentally ill. In fact, some disability scholars have argued that mental illness should be included under the broader umbrella of disability studies. Like feminist theory and critical race theory, critical disability theory views the act of storytelling as a fundamentally political act. "Shame and fear are personal burdens, but if these tales are told, we can demonstrate how the personal is indeed the political" (Linton, 1998, p. 167). As long as disabilities are treated as pathologies, deficits, individual afflictions, and personal tragedies, the social, cultural, economic, and political factors sustaining such harmful definitions will remain invisible and unchallenged.

Many in the field have argued that disability is the "effect of an environment hostile to some bodies and not to others, requiring advances in social justice rather than medicine" (Siebers, 2001, p. 173). Indeed, the systemic marginalization of persons with disabilities closely parallels and works in conjunction with other forms of oppression based on human differences. Feminist disability theorist Rosemarie Garland-Thomson (2006, p. 260) analyzes which bodies in particular pose the greatest threat to society and concludes that most despised of all are those bodily forms and functions that "call into question our cultural fantasy of the body as a neutral, compliant instrument of some transcendent will." Those deemed mentally ill are often guilty of the same crime: their mental status belies the illusory nature of this transcendent will.

Just as feminist, critical race, and disability theorists encourage women, people of color, and persons with disabilities to lift the veil of shame, to speak out, and to share their stories, we suggest that the distressing stories of persons with mental illness are a powerful signal that the mine is in danger. To be sure, a growing "psychiatric survivor movement" has been fueled by the creation of self-help forums for telling consciousness raising stories that challenge dominant psychiatric discourses (Cresswell, 2005; Hornstein, 2009). Sociologists of mental illness need to listen well to these distress calls not merely for the sake of the mentally ill but for the sake of us all. As such, in the following section, we will consider a few selected memoirs of those struggling with mental illness as representative of such distress calls. Memoirists tell us what it is like to try carving out viable identities in the shadow of the lingering societal stigma of mental illness.

In Their Own Words

Memoirs are a useful starting point for sociologists interested in the subjective experiences of the mentally ill. By definition, memoirists talk about living with mental illness in their own words. While memoirs are clearly windows only onto the lives of individual writers and are not intended to speak for an entire group, they offer sociologists clues about patterns of experience that merit broader, more systematic sociological inquiry. Consider, for example, how four widely known memoirs can sensitize us to important interconnections among mental illness, stigma, and self.

In Kate Millet's (1990) *The Loony-Bin Trip*, a memoir that critically examines her experience of being institutionalized for bipolar disorder, she poignantly describes the marginalizing effects of institutionalization and the ways in which societal stigma, despite one's strenuous efforts at resistance, can be internalized and damage one's identity.

> Outside, you will have a record, be a declared lunatic. Inside, this hardly bothers you…. Once outside… it begins to wear you down—snarling quarrels with your little circle of intimates about whether or not you were crazy…. A total stranger can destroy you by asking how you are—she heard you'd had a breakdown—and then it is all there about your ears again…. [Y]ou are branded. It is in you, implacably growing like a cancer, the more sure and strong because the few persons you try to describe it to fail completely to understand or even to be interested beyond their shock and disapproval at your attitude toward a place of healing. Their embarrassment becomes your shame. And your deliverance from the hell you lived through so heroically is not cause for rejoicing and congratulations but a stigma you will carry all your life. (p. 94–95).

Here, Millet speaks of stigma as a kind of "branding" that the mentally ill can never wash away, echoing Goffman's (1963, p. 3) notion of stigma as that which is "deeply discrediting" and which reduces the person "from a whole and usual person to a tainted, discounted one." Millet's stigma, although arguably invisible, is nevertheless ever-present among her "circle of intimates," given their knowledge of her history and even among those "strangers" who have "heard" about that history. Perhaps more importantly, as Millet points out, "it is in you, implacably growing like a cancer." Even Kate Millet, as radically resistant to societal norms as she is, has internalized the stigma.

Once she has internalized the stigma and incorporated it into her identity, the mentally ill individual may feel the compulsion to try to capitalize on the relative invisibility of mental illness. In other words, she may attempt to "pass" as "normal" among others. Yet, this deception can cause tremendous distress. Further still, if she is not convinced by her own performance, she may loathe both the self trying to pass and the "mad" self she wishes to deny. Marya Hornbacher (2008, p. 162) writes of this dilemma in her book, *Madness: A Bipolar Life*:

> Sometimes, I get the uneasy feeling that I'm fooling everyone. In the middle of a gathering of friends, at a party, at a show, on a walk… I'll remember the past. It leaves me a little shaken, bewildered by how I've gotten from there to here. I feel it in the pit of my stomach, the shame of it, the feeling that I am getting away with something, living a life I don't deserve. It's someone else's life. I've snuck in and am squatting in it. I'm wearing someone else's wedding ring, occupying someone else's house, and everyone loves the woman I'm pretending to be, not me. Who would love me? I hate the person I was. She disgusts me, her and her mess and her madness, her garish excess, her disorderly excuse for a life. She was a monster. She was sick. Suddenly I feel her in me, like bile in my throat. I can't let her out. The spell will break, and she will take over again. I want to forget her. I want her dead.

This deep sense of shame effectively splits Hornbacher in two: the Marya "pretending" and the "sick" Marya whose "madness" she is hiding. As a result, she is haunted by a palpable sense that she is dissociated from reality. This unreality in turn inevitably drives a wedge between Hornbacher and those around her, further amplifying the socially isolating effects of mental illness. In another passage, Hornbacher suggests that as much as one may try to pass, the illness will often "out itself" anyway. The stigma will become known:

> I am gripped with terror. I cannot go. I cannot go to this party. They will see me and laugh at me. My lipstick is crooked. My dress is not right. I am not well, and they will know it. They will see it (pp. 111–112).

In this passage, Hornbacher is literally crouched in a closet. The allusion is clear: she wants to hide her marginalized status as mentally ill for fear of the social stigma but is terrorized by the thought that she will fail to remain invisible. Again, the dialectic between self and society creates, in effect, two individuals: the ill person and the person observing or judging the ill person. This second witness takes on the perspective of others, or in Mead's terms, "the generalized other," society itself.

William Styron (1990) writes of this duality of self in his memoir on chronic depression, *Darkness Visible: A Memoir of Madness*.

> A phenomenon that a number of people have noted while in deep depression is the sense of being accompanied by a second self—a wraithlike observer who, not sharing the dementia of his double, is able to watch with dispassionate curiosity as his companion struggles against the oncoming disaster, or decides to embrace it. There is a theatrical quality about all this, and during the next several days, as I went about stolidly preparing for extinction, I couldn't shake off a sense of melodrama—a melodrama in which I, the victim-to-be of self-murder, was both the solitary actor and lone member of the audience (pp. 64–65).

It may have been Styron's "second self" that, in the end, prevented his suicide. Suddenly flooded with memories of joy and life, he said, "All of this was more than I could ever abandon…. I could [not] inflict [suicide] on those memories, and those, so close to me, with whom those memories are bound" (p. 67). Taking the perspective of the other, arguably the job of that second self, ultimately preserved his first self.

Finally, in *Undercurrents: A Life Beneath the Surface,* a memoir that documents her experience with severe depression, Martha Manning (1994) also writes about two selves. In her case, however, Manning is struggling to reconcile her past, pre-illness self with her future, post-illness self.

> One year ago today I … was released from the hospital. I have struggled greatly over this year with the shame of the depression, the hospital, the ECT. I've seen them as concrete signs of giving up, falling apart, getting an "F" in life. Being hospitalized on a psychiatric unit was… like crossing over into a different state. I've lost citizenship in the old place, but I haven't totally settled into the new one either ….
>
> My criterion for healing has been to be able to pick up right where I left off, like midpage in a novel…. I'm still not back to that page. Kay and Lew [daughter and husband] try to tell me, in their own gentle ways, to stop waiting. I think they're trying to tell me that I'm never going to get back to that page. That I'm in an entirely new book now, most of it unwritten. (p. 185–186).

There is in Manning's words a sense that she is in limbo—she is no longer who she was, but not yet sure of whom she will become. This liminality is uncomfortable. Distress at being "betwixt and between" two places may, however, be the catalyst that fosters one's transition to a new identity.

In this section, we offered a glimpse into the subjective experiences of the mentally ill—in their own words—to examine in particular how stigma has affected their sense of identity. Although small in number, our examples illustrate that memoirs embody a rich source of data on the subjective experiences of people with mental illness. They offer a valuable way for us to listen directly to the voices of suffering individuals. However, the memoir is by definition written from the perspective of a single person. Therefore, memoirs are methodologically problematic from a scientific perspective since they cannot represent more than one voice at a time. Sociologists, in contrast, provide the methodological rigor lacking in memoirs by systematically collecting data from strategically chosen populations. They are thereby able to discern broader patterns that may not be evident in single cases. In the following section, we show how sociological research conceptually extends the individual stories told in memoirs. In particular, we illustrate how qualitative research on mental illness attends to multiple experiences in order to uncover regularities in the ways that illness careers and identities emerge over time.

Unwelcome Careers

Social scientists systematically attending to the subjective experiences of mental illness have documented stories about hospitalization (Goffman, 1961), homelessness (Snow & Anderson, 1993), the stigma attached to mental illness (Dinos, Stevens, Serfaty, Weich, & King, 2004; Goffman, 1963; Moses, 2010; Wahl, 1999; Wright, Wright, Perry, & Foote-Ardah, 2007), the use of psychotropic medications (Smardon, 2008), life in half-way houses (Winerip, 1994), the impact of gender on personal experience (Jack, 1991; Schreiber, 1996, 2001), managing illness disclosure in work settings (Owens, 2009), and the meanings of recovery (Borg & Davidson, 2008; Howard, 2006). These seemingly diverse studies inevitably speak, directly or implicitly, to the changing identities of those pronounced mentally ill. In this section, therefore, we want to provide a more in-depth treatment of the way that illness and identity intersect. To do this, we have chosen to offer a brief overview of David Karp's qualitative research accomplished over more than two decades. Since Karp, one of the authors of this review, elects to tell parts of his own personal and research story—a story of how depression identities predictably emerge and evolve as part of a generic "mental illness career"—he should now speak directly to the reader.

Diagnosed with depression in my early 30s, I have been grappling for more than 30 years with the meanings and consequences of emotional illness. Since I am an ardent believer in C. Wright Mills' (1959) injunction that social scientists should "translate private troubles into public issues," I began to explore the possibility of writing a book on depression in the late 1980s. As indicated earlier in this review, I quickly learned that nearly all of the existing studies were survey research efforts linking the prevalence of depression to an enormous array of variables. In this respect, the starting point for my first book on depression, *Speaking of Sadness,* was to provide a forum for the unheard voices of the depressed. I also had the hope that by listening to others' narratives I might gain greater insight into my own life difficulties.

More and more, sociologists are utilizing their own life experiences to reflect on larger social processes. An entire field of sociological practice, "auto ethnography," maintains there is value in scholars sharing their own sociologically informed autobiographical narratives to contribute critical insights to the discipline (see, e.g., Bochner & Ellis, 2002). Consistent with postmodern sensibilities, I decided to tell parts of my own story at the beginning of *Speaking of Sadness*. It seemed to me that this was the most truthful way to approach the research. "When we discuss others," after all, "we are always talking about ourselves" (Krieger, 1991, p. 4). To give the readers an honest sense of any preconceptions that may have influenced my interpretations of the interviews at the core of the book, it was only fair that I describe my own experiences. *Speaking of Sadness*, published in 1996, begins this way:

> In greater or lesser degree I have grappled with depression for almost 20 years. I suppose that even as a child my experience of life was as much characterized by anxiety as by joy and pleasure. As I look back on it, there were lots of tip-offs that things weren't right. I find it difficult to remember much of my early years, but throughout high school and college I felt uncertain of myself, feared that I could not accomplish what was expected of me, and had plenty of sleepless nights…. During all those years, though, I had no real baseline for evaluating the "normalcy" of my feelings…. Even though I was muddling along emotionally, probably like having a constant low-grade fever, I was achieving well enough in school to presume that underneath it all I was okay. It wasn't until my early thirties that I was forced to conclude that something was "really wrong" with me.
>
> People who have lived with depression can often vividly remember the situations that caused them to have a new consciousness as a troubled person. One such occasion for me was a 1974 professional meeting of sociologists in Montreal…. During the week in Montreal I got virtually no sleep. It's true I was staying in a strange city and in a borrowed apartment. But I had done a fair amount of travelling and never had sleeping difficulties quite as bad. Then, I thought, "Maybe I'm physically ill. It must be the flu." But again, it was unlike any flu I'd ever had. I wasn't just tired and achy. Each sleepless night my head was filled with disturbing ruminations and during the day I felt a sense of intolerable grief as though someone close to me had died. I was agitated and sensed a melancholy qualitatively different from anything in the past…. It truly was a miserable week and the start of what I now know was an extended episode of depression. It was also the beginning of a long pilgrimage to figure out what was wrong with me, what to name it, what to do about it, and how to live with it. It has been a bewildering, frustrating, often deeply painful journey. (pp. 3–4)

The ongoing reflection on my own illness path reminded me how confusing and opaque my depression journey had been to that point. It took years before I could/would attach the word depression to my feelings. People do not typically wake up one morning and tell themselves, "I'm a person suffering from a disease called depression. Therefore, I better get myself to a psycho-pharmacologist who will give me an antidepressant to correct a serotonin imbalance in my brain." As eventually confirmed by my interviews, depression often remains for many years a pain without a name.

By the end of the study, I heard dozens of comments like these: "During my sophomore year in high school, when I'd wake up depressed and drag myself to school…. I didn't know what it was. I just knew that I had an awful time getting out of bed and…a hard time, you know, getting myself to school…. I kind of just had the feeling that something wasn't right." Another person said, "…I really can't pinpoint the moment [when I was aware that I was depressed]…. It was just something that I felt I was living with or had to live through…." The more I thought about the social dimensions of mental illness and heard comments like these, the more persuaded I became that, apart from my personal stake in the matter, the subject would allow me to illuminate an important question, namely, "How does an illness identity come into being and then evolve?"

To be sure, every chapter in *Speaking of Sadness* deals with the dialectic of self and society, thereby demonstrating that a full understanding of depression depends as much on cultural chemistry as it does on brain chemistry. A paradox of depression is that sufferers yearn for social connection even as they withdraw from others. Depression is an illness of isolation. Feeling the urge to be alone when interaction becomes increasingly arduous, individuals retreat from social life. Such a choice provides short-term gains, but ultimately withdrawal only deepens the anguish of depression. Here again there was impressive regularity in the stories I heard. A female graduate student explained the dynamic: “It’s a real catch-22 because you feel bad and you feel that if you see your friends you’re going to make them feel bad too…. So then you just want to stay by yourself, but if you stay by yourself it just gets worse and worse and worse.” “Thus, when the pain of human association leads to withdrawal and isolation, the self loses its social foundation, begins to wither, and in that process to social world comes to appear even more alien. It is in depression’s vicious feedback loop—the downward spiral of hopelessness, withdrawal, the erosion of self, the still more powerful feelings of hopelessness, the even greater impulse to withdraw, and so on—that we witness, in its most negative form, the dialectic of self and society” (pp. 27–28).

Seeing a pattern in the early interviews for the book, I began to focus on the idea that my respondents were following a distinctive illness “career.” My emphasis on the career concept was clearly influenced by sociologists like Everett Hughes (1958) and Howard Becker (1963) who applied the notion of career to such diverse groups as medical students and marijuana smokers, respectively. We most commonly associate “career” with professionals such as doctors, lawyers, and teachers, but a sociological perspective sees prisoners, lovers, criminals, and patients following career paths as well. I argued that one’s “depression career” triggers new identities similar to the new identities spawned by each stage of more “conventional” career paths. As such, I saw my analysis as operating at the intersection of illness careers and identities. Comments of the following sort bolstered this choice:

> You know, I was a mental patient. That was my identity…. Depression is very private. Then all of a sudden it becomes public and I was a mental patient…. It’s no longer just my own pain. I am a mental patient. I am a depressive. *I am a depressive* (said slowly and with intensity). This is my identity. I can’t separate myself from that. When people know me they’ll have to know about my psychiatric history, because that’s who I am.

I was further persuaded by additional data collection that depressed people typically move through a predictable sequence of “identity turning points” (Strauss, 1992). Consequently, in Chap. 3 of the book, called *Illness and Identity*, I focused on how my respondents viewed their problems over time. My central argument was that the individuals describe first *a period of inchoate feelings*—they do not have the vocabulary to call what they are experiencing “depression.” Next they begrudgingly conclude that *something is really wrong with me*. Eventually, a *crisis* catapults the person into the universe of therapeutic experts. Finally, almost all interviewees had to *come to grips with their new illness identity*. Nearly always, this last stage depended on the acceptance of a biomedical explanation of their suffering. In sum, individuals progress along a career path with predictable junctures, each of which requires dramatic reformulations of both self and illness.

Attention to the processes through which persons finally say about themselves, “I suffer from an illness called depression” or, even more powerfully, “I am a depressive” describes the most fundamental features of an evolving mental illness identity. In a later chapter, I again rely on patients’ stories to explore a parallel aspect of mental illness careers. Despite substantial variability in the stories I heard, there is a predictable pattern to the way that most of my respondents cope with and adapt to a newly acquired mental illness status. In a chapter called “Coping and Adapting,” my attention turns to *action*, to what people *do* about the pain that they eventually label as clinical depression.

In the initial stages of depression, individuals often take part in behaviors (drinking, exercising, partying) that will distract them from their suffering. But soon it becomes impossible to claim one’s pain as normal. Having acknowledged this, they then try to “fix” the problem. Their new interpretations of the origins of their sadness may trigger a variety of life changes. Over time, they seek out therapeutic experts hoping for some resolution to their problem. When healers often fail to resolve the depression, individuals frequently conclude that they may struggle with depression indefinitely. Consequently, their focus typically shifts from trying to eliminate depression to learning to live with it. In the end, many individuals reject the medical language of cure for the more spiritual language of transformation. Perhaps it is not surprising that as patients come to rely on their own experiential expertise, while losing faith in a purely medical model of mental illness, disenchantment often drives their evaluations of doctors.

After completing hundreds of interviews and spending years listening to people in support groups (Karp, 1992) discussing the contingencies surrounding their mental illnesses, I know that relationships with mental health practitioners trigger diverse and powerful emotions—hope, admiration, confusion, anger, love, hate, and despair, among others. Ill persons recount an array of treatment histories. Sometimes their stories are hard to follow simply because of the sheer number of therapists they have encountered. Others view themselves as psychiatric survivors who have escaped what they believe to be life-threatening medical treatments. Yet, other accounts of therapeutic relationships are effectively “love stories.” Consider a small sampling of the range of feelings I have heard expressed toward mental health practitioners.

> This guy was just a supercilious, superior, arrogant prick…. I had the feeling that he was just looking down on me as a semi-vegetable, and did me absolutely no good at all. He was a resident, and what does he know? That was the feeling I had…. He was a tall, red headed guy with a mustache and this arrogant manner, because he was this great resident from Cornell, you know, and [he thought] I didn’t know shit. And he didn’t either. And I was really angry at this guy, because he wasn’t helpful…. So I was for a while having to put up with that. [male administrator, aged 54]

> I had to see someone to get medication. So to me, whenever I had to go see him I would basically say to myself, “Okay, I have to go see him, but it’s just because I need medicine, for no other reason.” … I didn’t like his style. I just felt that he was kind of arrogant. His claim to fame was that he worked with a lot of teenagers going through different things and so he really understood. But he didn’t understand me. He didn’t at all, and he thought he did. And that’s one of my biggest pet peeves, when people think they know me, and think they know what’s going on, and they just don’t [female college sophomore, age 19].

The chafing between psychiatrists and patients is most exacerbated by the latter’s often-voiced frustration that doctors seem uninterested in their stories. Based on our discussion throughout this review, it is hardly surprising that the people with whom I have spoken over the years evaluate most highly those doctors who seem to really care about *them*.

> [I loved] her gentle mannerism, her voice…. When I started seeing her she would call me at home to see how I was doing. And whenever I called her – no matter where she was – I got a phone call back within ten minutes. I thought she really cared about me and wanted to see me get better. And she made me feel that taking the medications [she prescribed] was the right thing to do (female administrator, age 50).

As suggested by the words cited just above, taking medications is clearly another fundamental feature of illness careers. Quite some time ago, Peter Conrad (1985) explained how doctors’ conventional explanations of patients’ noncompliance with medication regimens wholly neglected the meanings attached to medication. Medical explanations largely assumed that noncompliance was simply the result of poor communication between doctors and patients. Here again, medicine demonstrated a curious conceptual myopia by slighting the identity consequences of taking pills. After listening to just a few stories, combined with my own experience, it was evident that the decision to take psychotropic medications, and to stick with them, raises fundamental questions of personal authenticity. While a single chapter in *Speaking of Sadness* described the identity consequences of pill-taking, the matter seemed so profoundly important that I devoted another book exclusively to that subject.

Is It Me or My Meds? (Karp, 2006) begins with a simple observation. It is that the decision to take any medication has an impact on the way we see ourselves. Whether taking an aspirin, a vitamin pill, or an antidepressant, there are implications for our sense of self. Indeed, the decision to take psychotropic medications requires especially complex interpretive work. Unlike other medications, psychiatric pills have *as their very purpose* the transformation of people’s moods, emotions, feelings, and cognitions. Consequently, these medications raise distinctive questions about our consciousness, questions about the very nature of our humanness. In fact, shortly after Prozac hit the market in 1986, Peter Kramer (1993) described miraculous stories of personal transformation. In his passionately enthusiastic descriptions of Prozac's power, he predicted that an emerging "cosmetic pharmacology" would eventually allow us to choose our personalities, rather like choosing clothing from a department store rack.

While some interviews conducted for *Is It Me or My Meds?* reveal a nearly religious-like devotion to drugs that have "saved my life," the pill stories I heard were primarily about identity confusions. Over and again, respondents agreed that the decision to take psychiatric medications was scary, in part because it meant crossing an identity boundary from being merely troubled to being psychiatric patients. Many expressed sentiments similar to the woman who told me. "I have a hard time taking medication…. So, I kind of swallowed…my will and that's when I took Prozac." Despite such initial misgivings the narratives around medication reveal yet additional career regularities. Collectively, the accounts collected suggest a process through which taking pills becomes a ritualized and a potentially life-long involvement. Ill people begin their medication careers hesitantly, driven by a sense of *desperation*. The decision to take a pill is typically followed by a lengthy period of *experimentation* during which sufferers hope to find the medication that is right for them. Once fully embedded in the culture of psychiatry, newly minted patients express *commitment* to biological explanations of their trouble. The decisive moment comes with a resigned *acceptance*. For example, "I've accepted now that this is the way I am. This [using medications] is what I'll need to do *for the rest of my life*" (authors' emphasis).

Psychiatric practitioners need to understand that individuals who start a course of psychotherapeutic medication undergo fundamental changes not only in their biochemistry but also in their very identities. While they may eventually "capitulate" to drug treatments, they feel nagged by persistent identity questions. Chief among these are: (1) What does it mean to cross certain identity boundaries? (2) What does it mean to feel like myself? (3) Is my true self being revealed or obscured by the medications I take? To be sure, among the provocative questions raised by many of my respondents is: "How can psychiatric medications relieve a persons' symptoms but make them feel worse about themselves?" As a single example among many, consider the plight of a young man who could not decide his feelings for a woman he was dating.

> It [drug taking] really impacts my identity, because I feel like I'm still developing who I am, and I haven't figured out my basic personality. I haven't figured out what I want in life, in a partner, in what kind of girl I'm looking for. And sometimes I feel like the depression and the medication and feeling better confuses that…. I mean, I've been trying to date a few girls recently. And I also think part of the medication's impact on me is that I don't know how I'm feeling. I always second-guess how I'm feeling emotionally about another person. It's a flat line. I don't have real joy. But when I feel sad and I feel like I should be depressed about something, I'm not. When I feel like I'm trying to figure out if I really like somebody, if I maybe love them, I can't figure that out, because I don't have those feelings…. When you're on medication that's part of the second guessing. So you don't know if that's you or if that's the drug.

These last few pages indicate the extensive "interpretive work" required of anyone eventually receiving a mental illness diagnosis. However, there is nothing sacred about the conceptual frameworks used to make sense of the many stories I have heard. I can well imagine that other writers hearing the same stories could notice quite different elements of the illness experience. Thus, my aim as a qualitative researcher is not to lay claim to invariant "social forms" (Wolff, 1950). Rather, the best test of a study's validity is that readers dealing with mental illness will strongly identify with the accounts of others and be provided new perspectives for understanding their own circumstances. Such new perspectives have the liberating potential to change selves and situations. For the same reasons, healers must learn to respect and to rely upon patient accounts. As ethnomethodologists (Garfinkel, 1967) have long demonstrated, we all necessarily create theories to explain our own experiences. Mental health practitioners who find no value in these theories diminish both the humanity of their patients and their own capacity as healers.

An Unfinished Agenda

Our discussion throughout this essay, but most especially our review of critical feminist, race, and disability theories, takes us beyond the core idea that the meanings of all experiences are contextual. We need to address the additional complexity that persons do not act in single contexts. Rather, our perceptions, reflections, and actions are constituted by multiple, intersecting social positions. We are not, for example, just men or women. We are, in addition, men and women of different races, social classes, ethnicities, and ages. Consequently, each of the studies cited throughout these pages, although demonstrating regularities in the experiences of mental illness, necessarily misses some of the diversity in the ways that persons define and deal with their suffering. Human distress encompasses an enormous array of hues, intensities, and responses depending upon the intersections of our multiple social locations.

Honest social science must create a balance between discovering general social patterns while documenting the many departures from those regularities. Consequently, we need more research that attends to the matter of "intersectionality." We recommend that future qualitative research disaggregate disease, in effect. That is, research should resolutely focus on the ways that different subgroups (e.g., gender, class, race, ethnic, age) and different intersections of these groups differently make sense of all aspects of mental distress. Such an agenda might seem unfriendly to the positivist urge to describe "realities" that transcend historical, cultural, group, and individual variations. There is some legitimacy to that claim. However, there is a softer interpretation of our recommendation. We think that the most refined understanding of mental illness is contingent on simultaneously discovering patterns while being appropriately respectful of diversity. We believe that such an approach, rooted in personal accounts, gets us closer to the "truth" about the experience of illness, albeit a far messier truth than social "scientists" and healers normally wish to discover.

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Chapter 3
Mental Illness as Psychiatric Disorder

Martha L. Bruce and Patrick J. Raue

Abbreviations

ADHD	Attention-deficit hyperactivity disorder
APA	American Psychiatric Association
CES-D	Center for Epidemiologic Study Depression Scale
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders
GAD	Generalized anxiety disorder
MDD	Major depressive disorder
OCD	Obsessive-compulsive disorder
PHQ-9	Patient Health Questionnaire for Depression
PTSD	Posttraumatic stress disorder
WHO	World Health Organization

To the sociologist, perhaps the single most important characteristic of the psychiatric perspective is that psychiatry views mental illness as a real phenomenon, as distinct from being a socially constructed myth. Whereas a purely social perspective might argue that "mental illness" is a label applied by society or social groups to subsets of unusual, unappealing, or disruptive behaviors and feelings, the psychiatry perspective would argue that these behaviors and feelings are themselves the signs and symptoms of true underlying disease or disorder states. Psychiatry uses the term "mental illness" for a spectrum of syndromes that are classified by clusters of symptoms and behaviors considered clinically meaningful in terms of course, outcome, and response to treatment. The purpose of this chapter is to describe how psychiatry defines and organizes these syndromes and to identify the kinds of clinical features associated with the syndromes most relevant to sociological inquiry. The overall goal is to show that the psychiatric perspective of mental illness encompasses more than a single dichotomous category—indeed, even more than a series of dichotomous diagnoses—for use

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M.L. Bruce (✉) • P. J. Raue
Department of Psychiatry, Weill Cornell Medical College,
21 Bloomingdale Road, White Plains, NY 10605, USA
e-mail: mbruce@med.cornell.edu

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as outcome variables. Rather, heterogeneity along a number of clinical axes within and among psychiatric disorders offers considerable richness to a sociological understanding of the risks for and outcomes of mental illness.

Modern psychiatry's conceptualization of mental illness as disease or disorder has found increasing support in recent years with evidence of genetic or biological risk factors and of physiological mechanisms (as indicated by brain scans, blood levels, and response to pharmacotherapy). The National Institute of Mental Health promotes research premised on the definition of mental illness as measurable dysfunction in neural circuitry. This medical model of mental illness has ramifications for how individuals with a psychiatric disorder are viewed by themselves and others. By having a disease or disorder, persons with mental illness become eligible for what sociologists call the "sick role." In the sick role, individuals are not considered personally responsible for their condition. The sick role contrasts with other models of mental illness in which individuals can elicit such pejorative labels as "bad," "weak," or "immoral" (Mechanic, 1978, 1995). At the same time, evidence of the contribution of personal behavior (e.g., smoking, exercise, sexual practice, and diet) to the risk of cancer, hypertension, AIDS, and numerous other diseases diffuses boundaries between personal responsibility and disease risk even within the medical model. Psychiatry's medical model of disease by no means negates the role of social factors in the study of mental illness. First, the sociologist's task of determining how and to what extent social factors contribute to, modify, or mediate the risk, course, and outcomes of psychiatric disorders arguably is easier when biological factors are better defined and measured (Alexopoulos & Bruce, 2009; Kendler, Myers, Maes, & Keyes, 2011; Link, 2008). Sociology's contributions to these questions have become relevant throughout the medical sciences with the increased attention to health disparities (Aneshensel, 2009). Second, the medical model's classification of persons with mental illness as having a disease or disorder places an obligation on society to care for those persons and an obligation on persons with the illness to accept the privileges and constraints of such care. Sociologists continue to investigate the extent to which the willingness and ability of social groups to provide affordable and accessible care for persons with mental illness vary by a range of social factors, including characteristics of the group, characteristics of individuals with the disorder, kinds of treatments available, and characteristics of the disorder itself. Finally, the extent to which a person with a history of mental illness can function in society is an inherently sociological question as any society can choose or not choose to structure itself in such a way to facilitate housing, jobs, and companionship for persons with a wide range of capacities and needs.

The remainder of this chapter describes the psychiatric perspective of mental illness in greater detail so that this information can enrich sociological research on these and other issues concerning mental illness. The chapter is organized into three major parts. The first two parts describe how psychiatry classifies mental illness. In the next section, issues concerning the process of classification and diagnoses are examined that are particularly relevant to sociology. The following section is a catalogue of major psychiatric diagnoses and their criteria. This section may be particularly useful to readers unfamiliar with the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; American Psychiatric Association [APA], 2000). Other readers may want to skip ahead to the third section, a discussion of several other dimensions (labeled "clinical features") of mental illness as viewed from the psychiatric perspective that are less often incorporated into sociological studies of mental illness yet having particular relevance to sociology.

Psychiatry's Approach to Classifying Mental Illness

Modern psychiatry traditionally justified its conceptualization of mental illness as a disease by the extent to which reliable diagnoses are both possible and related to specific course, etiology, and response to treatment (Klerman, 1989; Mechanic, 1978). Diagnoses are fundamentally classification tools developed for reliable communication among clinicians, researchers, and policy makers and for informing treatment and management (Reed, Correia, Esparza, Saxena, & Maj, 2011). Such classification has been based mostly on phenomenology, which means that it is descriptive, and that diagnoses are defined primarily by clusters of signs and symptoms that are clinically meaningful in terms of personal distress, associated loss of functioning, or risk of negative outcomes such as death, disability, or loss of independence.

The two major diagnostic systems currently used are those of the American Psychiatric Association (APA) and the World Health Organization (WHO), as described in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; APA, 2000), and the International Classification of Disease (ICD-10; WHO, 2007), respectively. Although its reliance on phenomenology has been criticized, the DSM-III (APA, 1980; Rogler, 1997) and its early prototypes represented a major shift from earlier systems that lacked any standardized diagnostic criteria. A goal of the DSM-III and its successors has been to encourage reliability in making psychiatric diagnoses by providing operationalized criteria for both clinicians and researchers. The strength of these diagnostic systems is in offering a mechanism to increase the consistency with which diagnoses are made across individual clients, clinicians, institutions, and geographic regions. Reliability does not, of course, confer validity, and the emphasis on reliability has left the DSM-III and successors vulnerable to considerable criticism from a wide range of theoretical perspectives concerning, among other issues, validity (see Kraemer, 2007; Millon, 1983; Rogler, 1997).

To the sociologist, the potential pitfalls in relying on phenomenology to make psychiatric diagnoses are quite obvious. Even if accepting the psychiatric assumption that the disorders are “real,” we also know that the manner in which individuals perceive, experience, and cope with disease is based in large part on cultural explanations of sickness and expectation about illness behavior (Kleinman, 2011; Kleinman, Eisenberg, & Good, 1978). As culture is highly influential in shaping the subjective experience of disease, objective indicators of disease are only imperfectly related to the reported subjective experience of the illness (Angel & Thoits, 1987; Roe, Mashiach-Eizenberg, & Lysaker, 2011). Lack of correspondence between objective and subjective indicators affects both clinical and population-based mental health research as most researchers rely upon the individual’s self-reported appraisal of his or her own symptoms. These self-appraisals contribute directly or indirectly to virtually all mental health measures used in studies of the risk, help-seeking behavior, treatment, and outcomes of health conditions.

Discrepancies between objective and subjective measures also affect the accuracy of diagnoses made in clinical practice. For example, group differences in the language used to express and give meaning to symptoms affect the diagnostic process. Studies have documented differential willingness to endorse depression symptoms on standardized scales by racial/ethnic groups (Crockett, Randall, Shen, Russell, & Driscoll, 2005; Jang, Kwag, & Chiriboga, 2010; Kim, Chiriboga, & Jang, 2009). Additional, perhaps more subtle potential source of biases are provider expectations based on irrelevant characteristics of the patient, such as race and ethnicity, socioeconomic status, and/or age (Cepoiu et al., 2008). In the case of depression, for example, providers often believe that depressive symptoms are normal reactions to the stresses and losses associated with aging and low socioeconomic statuses. The elderly and the poor, therefore, may be underdiagnosed (and underserved) because their symptomatology is not seen as problematic. The problem arises in finding the right line between “over-medicalizing” what might be a normal reaction to these events, and the conditions versus ignoring a debilitating, yet treatable, disease (Mulder, 2008; NIH Consensus Development Panel on Depression in Late Life et al., 1992). As an example of the shift in this balance, in contrast to concerns about older adults not receiving treatment for depression a decade ago, recent data indicate an opposite phenomenon. In the case of home healthcare, 33% of geriatric patients were taking an antidepressant—regardless of whether or not depression was documented (Shao, Peng, Bruce, & Bao, 2011; Weissman, Meyers, Ghosh, & Bruce, 2011).

A second potential problem in the DSM's phenomenological approach is the distinction between "mental" and "physical" conditions. In introducing its classification schema, the authors of the DSM-IV acknowledge the problem in using the term "mental disorder" with the implication of a distinction from physical disorders: "a compelling literature documents that there is much 'physical' in 'mental' disorders and much 'mental' in 'physical' disorders. The problem raised by the term 'mental' disorders has been much clearer than its solution, and, unfortunately, the term persists in the title of the DSM-IV because we have not found an appropriate substitute" (APA, 2000, p. xxi). Although the DSM-IV relies heavily on phenomenology, differentiating "mental" from "physical" introduces decisions based on etiology. The DSM-IV warns not to include symptoms that are clearly due to a general medical condition, but does not explain how to accomplish this task. This problem is especially difficult for disorders such as depression where somatic symptoms (e.g., sleep problems, fatigue) are part of the diagnostic criteria. Moreover, psychiatric disorders among older adults are associated with high levels of medical comorbidity (Charney et al., 2003).

There is no gold standard, laboratory test, or methodology generally accepted by the field for distinguishing symptoms of depression from those associated with medical illness. Cohen-Cole and Stoudemire (1987) differentiate four common approaches to this problem: (a) *Inclusive*, when symptoms of depression are counted whether or not they might be attributable to a primary physical problem, which increases sensitivity at the expense of specificity; (b) *Etiologic*, when symptoms count toward the diagnosis of depression only if they are not "caused" by physical illness, which is the approach stipulated by the DSM-IV and the decision rule for the assessment tools like the Structured Clinical Interview for Axis I DSM-IV Disorders (SCID; Spitzer, Gibbon, & Williams, 1995) (although neither explains how to accomplish this task); (c) *Substitutive*, when additional psychological, affective, or cognitive symptoms are substituted for somatic symptoms in making the diagnosis (e.g., Clark, Cavanaugh, & Gibbons, 1983); and (d) *Exclusive*, when somatic items are eliminated from the existing criteria and the diagnosis is made on the basis of nonsomatic symptoms. The strategy chosen obviously affects estimated rates of disorder, especially in medically ill populations. For example, in a sample of elderly medical inpatient, Koenig, George, Peterson, and Pieper (1997) report a twofold difference (from 10.4% to 20.7%) in the prevalence rate of major depression depending upon which of these strategies is used.

Other potential sources of assessment variation are the instrument used for making the diagnostic assessment and who determines the attribution of symptoms to medical or mental etiology. In highly structured interviews such as the Diagnostic Interview Schedule (DIS; Robins, Helzer, Croughan, & Ratcliff, 1981), the interviewee makes this decision, while in structured clinical interviews, such as the SCID (Spitzer et al., 1995), the interviewer makes a clinical judgment. Responses to both types of instruments may vary systematically by a wide variety of factors that, themselves, are unequally distributed across socially groups. Examples include medical burden, cognitive impairment, attitudes and beliefs about mental illness, and so forth.

Although differences in classification criteria do not change the phenomena, or the underlying condition per se, the label attached to these signs and symptoms has far-reaching implications. From the individuals' perspective, the type of diagnosis given will affect the type and range of formal medical or psychosocial treatment offered to them and the expectations placed on them for physical, emotional, and functional recovery by clinicians, family, friends, and employers. From the society's perspective, the type of diagnosis assigned will affect findings generated from research on the risk, outcomes, and potential intervention of these phenomena. For this reason, an understanding of the criteria currently used by psychiatry to diagnose specific types of mental illnesses is an essential tool for any sociological investigation of mental illness.

The architects of modern diagnostic classification systems readily acknowledge many of the limitations to this approach, discussed below (Frances, 2009; Regier, Narrow, Kuhl, & Kupfer, 2009). The newest version of the DSM (DSM-V), due in 2013, is being developed with specific attention to some of these concerns. Although the classification system will remain heavily based on phenomenology, the developers are investigating the extent to which scientific advances in pathophysiology, genetics, pharmacogenomics, structural and functional imaging, and neuropsychology can be applied to standardized diagnostic criteria. Of importance to sociologists, the DSM-V is expected to add dimensional criteria to disorders, to differentiate assessment of impairment from diagnostic assessments, and to address the various expressions of an illness across developmental stages of an entire life span, gender, and cultural characteristics (Regier et al., 2009).

Types of Psychiatric Illness

This section briefly introduces key characteristics of the major psychiatric disorders comprising the DSM-IV. The DSM-IV attempts to describe the full range of psychiatric conditions, referred to as diagnoses and their subtypes, using a system of mutually exclusive and jointly exhaustive categories. The DSM-IV's categorical orientation and focus on diagnostic dichotomous boundaries have drawn thoughtful criticism (Mirowsky & Ross, 1989; Rogler, 1997). A major concern is with the notion that a person either has or does not have a symptom or that a person either has or does not have a diagnosed disorder. Critics argue that symptoms and conditions rest on a continuum, with individuals potentially exhibiting degrees of symptomatology. Dichotomizing psychiatric states loses information about the degree of symptomatology in both groups—those who meet diagnostic criteria and those who do not. Although acknowledging this criticism and admitting to the imprecision of classificatory boundaries, the authors of the DSM-IV also argue that the categorical approach—that is, defining diagnostic cases—is "thus far" still more pragmatic in clinical settings and useful in stimulating research (APA, 2000, p. xxii). The classification system is reinforced by financial reimbursement strategies, which usually determine payment based on whether or not a patient meets diagnostic criteria for a specific disorder.

For each DSM-IV diagnosis, criteria are defined first by the presence of a specified cluster of signs and symptoms, usually occurring together and for a minimum duration of time. Next, these signs and symptoms—individually or in combination—must reach a minimum threshold of severity, usually indicated by functional impairment or level of distress. Third, exclusion criteria are applied, so that a symptom does not count toward a diagnosis if the symptom, for example, is due to a medical illness, medication use, or substance use. Although in a small number of cases, the DSM-IV does not permit certain diagnoses to exist in the context of another diagnoses (e.g., major depression is not possible if a person has a bipolar disorder), psychiatric comorbidity (i.e., a person meeting criteria for more than one DSM-IV diagnosis) is not only possible but fairly common (Kessler et al., 1994, 2005).

DSM-IV uses a multiaxial assessment system, where Axis I comprises clinical disorders and Axis II personality disorders and mental retardation, conditions that manifest early in the life course and are stable over time. Our focus in this chapter is restricted to a subset of Axis I disorders for several reasons. The first group, schizophrenia and other psychotic disorders, has been a primary concern of sociology since Faris and Dunham introduced the debate over "social causation versus social selection," when they identified socioeconomic patterns in the housing location of patients discharged from mental hospitals in the 1930s. The second two disorder groups, depression and anxiety, became more focal to sociological research with the advent of community-based surveys because the self-report questionnaires used in these studies were heavily laden with symptoms from these two diagnoses. Depression and anxiety are the most prevalent disorders in adult age women. Substance-related disorders are included both because they too are quite prevalent, especially in men, and because of their inherent interest to the sociologist. Unlike psychotic, depressive, and anxiety disorders, a substance-related disorder such as alcohol dependence is based more on a voluntary behavior (e.g., drinking) than from an internal feeling state. Together, these four first sets of disorders comprise the great majority of psychiatric disorders observed in community populations (Kessler et al., 1994, 2005). The two final sets of disorders discussed in this chapter were chosen for their relevance to children and elderly adults, two groups who have relatively less power and fewer resources compared to working age adults. Additionally, because children are usually, and elderly often, dependent on other people for care and guidance, mental illness in these two groups often has an especially large impact on family and friends.

Schizophrenia and Other Psychotic Disorders

Psychotic disorders, including schizophrenia, have particular relevance to sociology as they comprise a large proportion of conditions labeled as “severe mental illness.” Schizophrenia is usually described as a rare disorder affecting approximately 1% of the population over the lifetime, yet this 1% represents millions of people today (Keith, Regier, & Rae, 1991; Linscott & van Os, 2010). Schizophrenia is severe because it not only brings considerable personal suffering but also because people with schizophrenia very often are unable to complete their education, maintain a job, and otherwise function as normally expected in our society. One reason schizophrenia and related disorders are interesting to sociologists, then, is that they serve as a kind of mirror to what capacities are needed to live successfully in our society. In addition, the kinds of lives lived by people with schizophrenia speak to the level of intolerance in our society to people who do not have those capacities. As an example of sociological research in this area, one study investigated why the increasing popularity of biomedical views of serious mental illness has failed to increase tolerance of those suffering from mental illness (Schnittker, 2008). Although beliefs about genetic causes were associated with social acceptance for individuals with depression, they were associated with fears about violence for those with schizophrenia. In addition, although such beliefs were related to respondents’ recommendations for treatment, they were not related to expectations for improvement.

Historically, the term *psychotic* has been defined in a variety of ways, none with universal acceptance. Compared to earlier versions, the DSM-IV uses a relatively narrow definition with psychosis referring to delusions, prominent hallucinations (usually without insight, i.e., recognition by the individual as being a hallucination), disorganized speech (an indicator of disorganized thinking), or disorganized or catatonic behavior. Delusions are erroneous beliefs that usually involve a misinterpretation of perceptions or experiences. The bizarreness, that is, implausibility, of delusions can be difficult to judge, especially across cultures (Rogler, 1996). Hallucinations are distortions or exaggerations of sensory perception, most often hearing things no one else hears, but also seeing, smelling, tasting, or feeling. Hallucinatory experiences are a normal part of religious experience in some cultures, making the judgment of bizarreness or abnormality particularly difficult.

Among the major DSM-IV diagnoses characterized by psychosis are schizophrenia, schizoaffective disorder, and schizophreniform disorder. *Schizophrenia* is defined as a disturbance lasting at least 6 months and, in its active phase, including two or more of the five symptom groups: (a) delusions; (b) hallucinations; (c) severely disorganized speech; (d) grossly disorganized or catatonic behavior, or (e) negative symptoms (e.g., affective flattening, alogia/poverty of speech, and avolition/inability to initiate and persist in goal-directed activities). These negative symptoms reportedly account for much of the morbidity associated with schizophrenia because they generally interfere with social and occupational functioning. *Schizophreniform* disorder is similar to schizophrenia but with shorter duration and the possibility of less functional decline. *Schizoaffective disorder* is a disturbance in which a mood episode (i.e., depression or mania) and the active phase symptoms of schizophrenia occur together and are preceded or followed by at least 2 weeks of delusions and/or hallucinations without mood symptoms.

Depression and Other Mood Disorders

Although the early community-based studies of mental illness, most notably the Midtown Manhattan Study and Stirling County Study, aimed to assess all forms of mental illness, much of what they measured was depression and anxiety. This result occurred both because the questionnaires largely tapped into these conditions and because both conditions are highly prevalent. In more recent decades, investigations into depression have formed the backbone of social stress research. Depression is an appealing topic for study because its high prevalence makes it relatively easy to study in population samples and also makes the findings from such a study relevant to a large population. The relative commonness of depression, however, also makes it difficult to study because the very term "depression" is used both casually and with a wide range of meanings, which may or may not be linked upon the same continuum. For this reason, knowledge of the diagnostic criteria is useful for precision and clarity.

The predominate feature of depression and other mood disorders is changes in affect or mood. The major types of disturbances, usually experienced as episodes, are characterized by either mania or depression. These episodes form the major components of the mood diagnoses, with, for example, bipolar disorder defined by episodes of mania often interspersed with episodes of depression, and *major depressive disorder* (MDD) defined by episodes of depression without a history of mania. The percentage of the US population who has experienced at least one episode of a mood disorder over the course of their lifetime ("lifetime prevalence") is over 20% (e.g., 20.8% [Kessler et al., 2005]; 21.4%; [Kessler et al., 2007]).

MDD is the most common mood disorders with lifetime prevalence rates of 16.6–19.2% (Kessler et al., 2005, 2007). The essential feature of a major depressive episode, as defined by the DSM-IV, is at least 2 weeks during which there is depressed mood or the loss of interest/pleasure in nearly all activities. In children, the mood may be more irritability than sadness. To meet full criteria for an episode of major depression, individuals must also concurrently experience symptoms, also lasting 2 weeks or more, from at least four out of a list of seven groups: (a) changes in weight or appetite; (b) changes in sleep; (c) changes in psychomotor activity; (d) decreased energy; (e) feelings of worthlessness or guilt; (f) difficulty thinking, concentrating, or making decisions; (g) recurrent thoughts of death or suicidal ideation, plans, or attempts. Symptoms must be entirely new or significantly worse than normal. Symptoms also must be severe, which means they must be associated with clinically significant distress and/or impairment in social, occupational, or other types of functioning.

MDD is diagnosed when an individual experiences one or more major depressive episodes without history of mania (defined below). In contrast to the episodic nature of major depression, *dysthymia* is defined by chronically depressed mood that occurs for most of the day, more days than not, for at least 2 years with at least two additional depressive symptoms and no history of mania. An individual can be chronically dysthymic as well as experience periodic episodes of major depression. Recent studies also suggest that acute but relatively mild episodes of depressive symptoms (i.e., minor, subsyndromal, subthreshold depression) may also have clinical relevance and impact on outcomes such as functional status and institutionalization (Judd, Rapaport, Paulus, & Brown, 1994; Lyness, Chapman, McGriff, Drayer, & Duberstein, 2009; Meyers, 1994). Although not formally recognized by the DSM-IV, minor depression has been included in the section labeled "needing more study" and will likely have greater prominence in the DSM-V. The research criteria proposed by the DSM-IV for minor depression are similar to major depression but with fewer symptoms (2–4 vs. 5).

A *manic* episode is defined by a distinct period (1 week or more) during which there is abnormally and persistently elevated, expansive or irritable mood. Concurrently, an individual must experience at least three additional symptoms from a list of seven symptom groups: (a) inflated self-esteem or grandiosity; (b) decreased need for sleep; (c) increased talkativeness; (d) racing thoughts; (e) distractibility;

(f) increased goal-directed activity or psychomotor agitation; and (g) excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., buying sprees, sexual indiscretions, foolish business investments). These symptoms must be severe enough to cause marked impairment in functioning. Variations on the manic episode include *mixed* episodes (e.g., symptoms of both depression and mania for at least 1 week) and milder *hypomanic* episodes.

Most sociological studies that assess depression using symptom scales do not differentiate between respondents with and without a history of mania. Using the DSM-IV criteria, however, a history of mania changes the type of diagnosis given to a person who is currently depressed. *Bipolar I* disorder is defined by a history of manic or mixed episodes with or without a history of major depressive episodes. *Bipolar II* disorder is characterized by a history of major depressive episodes as well as episodes of hypomania. The combined lifetime prevalence rate of Bipolars I and II in the United States ranges from 1.0% to 3.9% (Kessler et al., 2005, 2007). *Cyclothymic* disorder is also defined by hypomanic episodes but with interspersed subsyndromal depressive symptoms.

Anxiety Disorders

Although the most highly prevalent set of psychiatric disorders, anxiety has not received the same level of research attention from sociologists as observed for depression or schizophrenia. Yes, over the lifetime, 28.8–31.0% of individuals will experience at least one episode of a DSM-IV anxiety disorder (Kessler et al., 2005, 2007). As noted above, however, many of the self-report measures of overall mental illness used in early sociological studies—indeed, even those currently used to assess depression—actually contain symptom indicators of anxiety. Perhaps not surprisingly, then, sociological research has begun to document the strong influence of society on the risk and outcomes of anxiety disorders as observed in other mental disorders.

Anxiety disorders encompass a range of diagnoses characterized by excessive worry, fear, or avoidance behavior. The major forms of DSM-IV anxiety disorders include: (a) panic disorder without agoraphobia; (b) panic disorder with agoraphobia; (c) agoraphobia without history of panic; (d) specific phobia; (e) social phobia; (f) obsessive-compulsive disorder; (g) posttraumatic stress disorder; (h) acute stress disorder, and (i) generalized anxiety disorder.

Panic disorder, which can occur with or without comorbid agoraphobia, is diagnosed by a history of two or more panic attacks. These attacks are discrete periods characterized by sudden onset of intense apprehension, fearfulness, or terror, often associated with feelings of impending doom in situations where most people would not feel afraid. The criteria for a panic attack demand at least 4 out of 13 additional somatic or cognitive symptoms, for example, shortness of breath, palpitation, chest pain or discomfort, choking or smothering sensations, and fear of "going crazy" or losing control. Attacks have a sudden onset and short duration (i.e., 10 min or less). Panic attacks are often experienced as a heart attack or similar physical condition, resulting in exacerbated worry by the sufferer and family as well as substantial use of medical resources (Eaton, Dryman, & Weissman, 1991). The lifetime prevalence of panic disorder is estimated as 4.7% (Kessler et al., 2005).

Phobia, or fear, is the basis of several of the anxiety disorders. Important to the diagnosis of phobias is the difference between manageable fear, which many of us have to specific stimuli, and fear that is both excessive and leads to clinically significant impairment. *Agoraphobia* is anxiety about (or avoidance of) places or situations from which escape might be difficult or in which help might not be available if needed. Individuals with agoraphobia often stay inside their homes most of the time. As noted, agoraphobia often coexists with panic disorder. Agoraphobia is relatively rare with an estimated lifetime prevalence of 1.4% (Kessler et al., 2005). *Specific phobias* (previously called simple phobias in the DSM-III) are more common [12.5% lifetime prevalence, (Kessler et al., 2005)] and refer to clinically significant anxiety provoked by exposure to a specific feared object or situation (e.g., snakes, bridges) often leading to avoidance behavior. *Social phobia* is also characterized by clinically significant anxiety, in this case provoked by exposure to certain types of social or performance situations, often leading to avoidance behavior. Social phobia is also relatively common with an estimated lifetime prevalence rate of 12.1% (Kessler et al., 2005).

Obsessive-compulsive disorder (OCD) is characterized by obsessions, which cause marked anxiety or distress, and/or compulsions, which serve to neutralize anxiety. These obsessions or compulsions must be severe enough to be time consuming (i.e., lasting at least 1 h per day) or to cause marked impairment/distress. As defined by the DSM-IV, obsessions are persistent ideas, thoughts, impulses, or images that are experienced as intrusive and inappropriate (i.e., outside the individual's control) that cause marked anxiety or distress, and that are not simply excessive concerns about real-life problems. Examples include thoughts about contamination (e.g., from shaking hands), doubts (e.g., did I leave the iron on?), need for things to be in a particular order (e.g., symmetrical), and sexual imagery. Compulsions are repetitive behaviors (e.g., washing hands, returning home to check the iron) or mental acts (e.g., praying, counting). The goal of these compulsions is to prevent or reduce anxiety or distress as opposed to providing pleasure or gratification. Generally, compulsions are attempts to reduce anxiety about an obsession, so that, for example, excessive worry about germ contamination from shaking hands is linked to excess hand washing, and excessive doubts about the iron burning down the house is linked to countless trips home to ensure that the iron has been turned off. For the diagnosis of obsessive-compulsive disorder, compulsions or obsessions must cause marked distress, be time consuming, or significantly interfere with normal functioning. A debilitating condition, OCD, is also relatively uncommon with a lifetime prevalence rate similar to that of schizophrenia [1.6% (Kessler et al., 2005)].

Posttraumatic stress disorder (PTSD) is characterized by the re-experiencing of an extremely traumatic event (e.g., war, rape, assault) accompanied by symptoms of increased arousal and by avoidance of stimuli associated with the trauma. In contrast to other diagnoses, PTSD is explicitly defined in reference to an etiologic agent. The symptoms of *acute stress disorder* are similar to those of PTSD but occur in the immediate aftermath of an extremely traumatic event. The lifetime prevalence of PTSD in the United States is estimated at 6.8% (Kessler et al., 2005).

Generalized anxiety disorder (GAD) is defined by 6 months of persistent and excessive anxiety and worry about events or activities. The individual experiencing GAD finds it hard to control the worry, which is accompanied by three or more symptoms including: (a) restlessness, (b) fatigue, (c) difficulty concentrating, (d) irritability, (e) muscle tension, and (f) sleep disturbance. To satisfy GAD diagnostic criteria, excessive anxiety must cause distress and/or interfere with accomplishing normal. The lifetime prevalence of GAD in the United States is estimated at 5.7% (Kessler et al., 2005).

Substance-Related Disorders

The interplay among personal behavior, societal expectations, and biology is especially evident in the class of conditions labeled substance-related disorders in the DSM-IV. In the DSM-IV, "substance" refers in large part to a "drug of abuse" obtained either legally (e.g., alcohol, caffeine, nicotine) or illegally (e.g., PCP, opioids). Substance also refers to medications and toxins. Substance-related disorders are problematic conditions related to consuming these substances. Perhaps more than most other diagnoses listed in the DSM-IV, the sociologist may question the reasons for including substance-related conditions as psychiatric disorders because the causes of these "problematic conditions" (i.e., drinking alcohol or using drugs) are self-induced and often (especially in the case of alcohol) socially sanctioned behaviors. The logic for their inclusion, however, is consistent with the DSM-IV's reliance on phenomenology rather than etiology or cause. The DSM-IV criteria focus on the signs and symptoms (e.g., craving, physiological withdrawal) rather than the drinking per se. Society's ambivalence on how to classify substance-related conditions is reflected in the separation of alcohol, drugs, and mental health into three separate institutes of the National Institutes of Health—National Institute of Mental Health, National Institute of Drug Abuse, National Institute on Alcohol Abuse and Alcoholism—and in the ways in which many states organize and finance their services in these three categories.

The essential feature of *substance dependence* is a cluster of cognitive, behavioral, and physiological symptoms, indicating that the individual continues to use the substance despite significant problems related to its use. A pattern of repeated self-administration usually results in tolerance (i.e., need for markedly increased amounts to achieve desired effect or markedly diminished effect for a given amount), withdrawal, and compulsive drug-taking behavior. The lifetime prevalence of any substance dependence is estimated as 14.6% (Kessler et al., 2005, 2007).

Substance abuse is less severe than substance dependence and is characterized by a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences (e.g., repeated failure to fulfill role obligations, use when physically hazardous, and multiple legal, social, and/or interpersonal problems). Compared to substance dependence, the symptoms of substance abuse tend to be defined by social rather than biological or psychological problems.

Disorders in Childhood

Although children suffer from a number of psychiatric disorders that are also common among adults (e.g., depression and anxiety), an additional set of disorders is defined by onset during childhood. Among these include mental retardation, learning disorders, pervasive developmental disorders, and attention-deficit/Hyperactivity Disorder (ADHD).

Of these, ADHD is both relatively common (lifetime prevalence of approximately 9.5%) and very disruptive to the life of the affected child and family (Centers for Disease Control and Prevention, 2010). In the DSM-IV, ADHD is characterized by persistent inattention and/or hyperactivity in more than one setting (e.g., home and school) at a level greater than normally observed in children at a similar developmental stage. To meet diagnostic criteria, at least some ADHD symptoms must appear before age 7. In addition, a child needs to manifest six or more maladaptive symptoms lasting 6 months or more related either to *inattention* (e.g., careless mistakes at school, difficulty sustaining attention in tasks, not listening, not following through on instructions, difficulty organizing tasks, avoiding tasks that require sustained effort, losing tools needed for a task, being easily distracted or forgetful) or *hyperactivity/impulsivity* (e.g., fidgeting, leaving one's seat inappropriately, leaving the room inappropriately, difficulty playing quietly, being always on the go, talking excessively, blurting out answers prematurely, having difficulty waiting one's turn, interrupting others). In ADHD, these symptoms result in considerable impairment in family, school, and social groups, and children with ADHD are often disruptive to these settings. Because many of these symptoms mirror the normal behaviors of very young children, they cannot be easily evaluated or identified until at least age 4, an age at which children are developmentally ready to pay sustained attention to tasks and more able to control their own behavior.

Childhood behavioral disorders are of particular interest to sociologists because it is possible to view the line between normal and abnormal behavior as being drawn by cultural or even subgroup norms rather than by some absolute criterion (Costello, Egger, & Angold, 2005) and because it is a socially contested illness (see Chap. 4). Indeed, ADHD usually does not get diagnosed until a child enters school and is confronted with more constraints on his or her behavior than in the home. On the other hand, a hallmark of ADHD is the inability to constrain one's behavior to social expectations as opposed to a lack of willingness. From this perspective, ADHD brings huge and unwanted problems to a child. As with most psychiatric illnesses, ADHD also greatly burdens and is a source of stress for the family, putting family members at risk for other negative outcomes (see Chap. 26). Current sociological research on ADHD has investigated stigma associated with receiving mental health care for childhood disorders, and willingness to use psychiatric medication for these disorders. One study found substantial concerns about stigma, particularly around use of medications (Pescosolido, Perry, Martin, McLeod, & Jensen, 2007). Another study found that Americans were more likely to endorse psychiatric medications for children who express suicidal statements (57%) than for those with "oppositional" behaviors (34%) or hyperactivity (30%) (McLeod, Pescosolido, Takeuchi, & White, 2004).

Dementia and Delirium

Dementia and delirium are predominately problems of aging adults. The risk of dementing disorders is frightening to many older people not only because of the loss in cognitive capacity per se but also because dementia generally results in the loss of physical independence for older person. Families assume much of the responsibilities for the older person with dementia, providing either direct care or coordinating care from formal providers or institutions. As noted for children with mental disorders, the perceived emotional and financial burden of caring for a family member with dementia is often stressful and increases the risk for depression and other health problems.

The predominant disturbance of dementia and delirium is a clinically significant deficit in cognition or memory. In both conditions, the cognitive and memory deficits represent a significant change from previous functioning, differentiating them from mental retardation. Also unlike mental retardation, dementia and delirium are disorders associated with aging and old age.

DSM-IV *dementia* criteria include evidence of memory impairment as well as disturbance of one or more of the following functions: (a) language (aphasia), (b) motor activity (apraxia), (c) recognitions (agnosia), and (d) planning, organizing, and abstracting (executive function). To meet diagnostic criteria, the level of disturbance must result in significant functional impairment. Subtypes of dementia are differentiated by their etiology with major types including: (a) *Alzheimer's type dementia,* (b) *vascular dementia*, and (c) less common dementias resulting from other medical conditions (e.g., HIV, head trauma), substance use (e.g., alcohol), or indeterminate etiology. Alzheimer's dementia and vascular dementia differ by their patterns of onset and course. The onset of Alzheimer's disease is gradual, and decline continues gradually, often for many years, resulting in great disability and functional dependence. Only very recently have drugs become available that effectively help slow the course of Alzheimer's dementia. Vascular dementia is associated with cerebrovascular disease. In contrast to Alzheimer's dementia, the onset of vascular dementia is often, although not always, very rapid and in direct response to a recognized cerebrovascular event (e.g., a stroke). In vascular dementia, recovery of memory and cognitive functioning is possible.

Delirium is characterized by disturbance of consciousness and change in cognition over a short period of time that are not accounted for by preexisting dementia. Delirium is particularly prevalent in older, hospitalized medical patients, often in response to the medical condition itself or to the medication and/or other treatment factors used for the medical condition.

Clinical Features of Psychiatric Disorders

In describing the diagnostic criteria of the major psychiatric diagnoses contained in the DSM-IV, the previous section focused on the differences in the signs and symptoms among these disorders. From the psychiatric perspective, the process of using these signs and symptoms to make a judgment (i.e., to diagnose) about the kind of problem a patient may have (i.e., a diagnosis) is a critical step is recommending appropriate treatment and care (Klerman, 1989). As noted above, diagnostic classification has been criticized by sociologists for losing information about what are often continuous phenomena. Yet, diagnostic classification is usually only one (often the first) step in determining the nature of the psychiatric condition, if there is one. Most clinically oriented researchers and clinicians also assess patients along a number of other dimensions. These other dimensions are not often incorporated into sociological mental health research, yet have great potential for enriching our understanding of the contribution of social factors to the etiology and course of psychiatric disorders and of the ways in which psychiatric problems affect an individual's social functioning, social status, and social environment. Although these different dimensions have overlapping qualities, they are organized below for convenience sake into three sets: (a) severity, (b) episode duration, and (c) onset and illness course.

Severity

Severity is a measure of the magnitude or intensity of an illness. For sociologists oriented toward continuous measures, measures of severity are intuitively appealing as they move beyond a dichotomous indicator of "sick/not sick" to a degree of illness. The notion of severity of illness is embedded, implicitly or explicitly, in many sociological theories about the etiology, care, and outcomes of mental illness with hypotheses such as, for example, the greater the stress, the greater the severity of the resulting illness, or the effect of predisposing factors on seeking help will be weaker in the context of more severe mental illness than in the context of less severe illness.

Severity measured in terms of number of symptoms is perhaps the most familiar clinical feature to sociologists given that it lies at the heart of most symptom scales, including those designed for use in epidemiologic samples, such as the Center for Epidemiologic Study Depression Scale (CES-D; Radloff, 1977) or K6/K10 (Kessler et al., 2002), and those designed for use with diagnosed patients, such as the Hamilton Depression Scale (Hamilton, 1960) or Montgomery-Asberg Depression Scale (Montgomery & Asberg, 1979). Although symptom scales differ in the time period assessed (e.g., current state vs. past month) and the detail provided by possible responses (e.g., yes/no vs. some of the time/much of the time/all of the time), most scales produce a continuous outcome measure ranging from little or no symptomatology to considerable symptomatology. Well-designed symptom scales generally correlate highly with diagnostic criteria, so that respondents who score high on symptom scales (e.g., depressive symptoms) are most likely to also make criteria for the related disorder (e.g., major depression), but this correspondence is far from perfect. The newer Patient Health Questionnaire for Depression (PHQ-9; Kroenke, Spitzer, & Williams, 2001) has been well-received in both clinical and research settings because it can be used to evaluate diagnostic criteria and as a continuous measure of severity. Symptoms scales are also used to designate individuals with subsyndromal or subthreshold conditions.

Symptom scales do not perfectly correlate with diagnoses in part because they do not incorporate the inclusion and exclusion criteria used in making psychiatric diagnoses. In particular, symptom scales assess the presence or duration of symptoms but not whether this constellation of symptoms meets severity criteria in terms of associated distress or functional impairment. An individual may experience a great number of psychiatric symptoms, but these symptoms may be mild so that an individual continues to function well in home and work roles. In contrast, a different individual may report only the minimal symptoms necessary to make diagnostic criteria (or only subthreshold criteria), yet the depression may be severely debilitating or lead to negative outcomes like job loss or disability (e.g., Blazer, Hughes, & George, 1987; Broadhead, Blazer, George, & Tse, 1990; Bruce, Seeman, Merrill, & Blaz, 1994).

Arguably, less methodological progress has been made in knowing how to assess syndrome severity than in developing strategies for assessing the presence of symptoms and operationalizing whether or not these symptoms fit the structure of a given psychiatric diagnosis. Assessing severity is complicated, in part, because social factors may well have an even greater influence on the assessment of both distress and functional impairment than on the assessment of symptom presence. Gender differences in the willingness of men and women to acknowledge symptoms of depression, for example, suggest similar differences in the willingness of men and women (or across other sociocultural groups) to acknowledge that a behavioral symptom (e.g., weight gain, distractibility, shortness of breath) is upsetting to the individual (Newmann, 1986). Similar subgroup variation might be expected in the willingness to report that symptoms interfere with normal functioning or lead to help-seeking behavior. As an example, an epidemiological study found that both African-Americans and Caribbean blacks diagnosed with major depression were more likely than non-Hispanic whites to rate their symptoms as severe or very severe and as more disabling (Williams et al., 2007). The majority of black individuals, however, did not receive any type of mental health treatment.

Syndrome severity is also affected by variation in the number and kinds of roles in which an individual normally participates. An example comes from Boyd, Weissman, Thompson, and Myers (1982, p. 1198) who compared depression assessed using the CES-D (Radloff, 1977) and SADS/RDC (Spitzer & Endicott, 1978) in 482 community-dwelling adults. The authors describe an 85-year-old woman who scored very high on the CES-D but did not make criteria for major depression using the SADS. The woman lived alone, had almost no social contact, and was homebound due both to fear of crime and medical morbidity. She, in essence, had no family, work or other social role. So although the woman affirmed almost all the SADS depression items, the items could not be scored positive because she had neither sought help nor, having no role to impair, reported any role impairment. Although this example sounds extreme, the very factors that reduced this woman's functional scope—social isolation, homebound status, and medical morbidity—are disproportionately prevalent in older adults and have been implicated as major risk factors for first onset major depression (Bruce & Hoff, 1994). More generally, an individual's normal role structure can influence both the likelihood of meeting diagnostic criteria as well as our ability to assess severity among those who have been diagnosed with a mental disorder.

Misconceptions about severity also have an impact on beliefs about treatment. One example stems in part from the sociological literature linking depression to life events. This literature is concordant with much of popular culture where there seems to be general acceptance that symptoms of depression are common, if not normative, after bad things happen. This cultural acceptance of depressive reactions to negative events has several sequellae. First, although the DSM-IV generally excludes etiology from its diagnostic criteria, an exception is made for depressive episodes that follow bereavement. In the DSM-IV, bereavement serves as an exclusion criterion for major depressive episodes although similar exclusions are not made for other negative life events (e.g., job loss, injury, divorce). The cultural acceptance of depressive symptoms as normal reactions to events also contributes to the notion that such symptoms are normal and should not be medicalized by treatment (see Chap. 6). This attitude is particularly pervasive in regard to elderly adults, many of whom experience numerous losses in terms of their physical function, loved ones and friends, and residential independence. For example, an influential article in the popular press severely criticized geriatric psychiatry for making a disorder out of the normal reactions to the difficulties of aging (Jacobson, 1995). What is lost in this kind of argument is the notion of severity, in terms of the pervasiveness of symptoms, duration of symptoms, and the impact these symptoms have on distress and functioning (Katz, 1996). Ironically, perhaps the most sociologically interesting observation is that attitudes about whether or not a person deserves treatment can reflect knowledge and assumptions about the etiology of a condition (e.g., virus vs. events) rather than the efficacy of treatment in relieving distress and improving functioning.

As noted above, there is a long history of debate on the pros and cons of categorical diagnoses versus dimensional assessments. Many limitations of the categorical system have been identified, such as failure to account for individual differences in disorder severity and loss of important clinical information regarding significant symptoms that do not meet criteria for specific psychiatric diagnoses. For example, research in the general nontreatment-seeking population has documented high rates of psychotic experiences in those not meeting formal criteria for a psychotic disorder (Kaymaz & van Os, 2010). At the same time, categories serve a practical purpose in specifying the scope of psychopathology in need of treatment and in facilitating professional communication (Kamphuis & Noordhof, 2009). Several researchers have proposed ways in which categorical and dimensional approaches can be combined (Brown & Barlow, 2005; Kamphuis & Noordhof, 2009; Linscott & van Os, 2010).

Consistent with these concerns, the DSM-V initiative has proposed a variety of *dimensional assessments* to supplement categorical diagnoses to help capture the symptoms and severity of mental illnesses. For example, several diagnostic-specific *severity measures* are currently being tested, including measures for anxiety, obsessive-compulsive-related, and trauma-related disorders. Such dimensional assessments would entail ratings of both the presence and the severity of symptoms, such as "very severe," "severe," "moderate," or "mild." These brief self-report scales will be linked to diagnostic criteria if possible and will provide a psychometrically sound approach to assess initial severity and ongoing treatment response. *Cross-cutting assessments* are another proposed dimensional measure and would provide information on clinically important areas of an individual's experience not necessarily tied to specific diagnostic criteria. Examples of relevant symptoms regardless of psychiatric diagnosis include depressed mood, anxiety, sleep quality, and substance use. These kind of dimensional assessments encourage mental health professionals to document all symptoms and not just those that are tied to an individual's primary diagnosis.

Episode Duration

Time provides an additional dimension by which to characterize mental disorders, both in terms of characterizing a specific episode and the long-term course of the illness (next section). Criteria for most DSM-IV disorders require that symptoms be present for at least some minimal amount of time. For example, symptoms of depression must be present most of the day on most days for at least a 2-week period. Accordingly, some episodes of depression can last as little as 2 weeks while others can persist for months or years. Some disorders, such as schizophrenia, are predominately *chronic* with at least some symptoms usually persisting over much of the individual's lifetime after initial onset. Other disorders are more episodic in nature. Major depression, for example, is usually characterized by periodic episodes, often lasting at least 6 months. A small proportion of depressive episodes last 2 years or more; these are labeled as chronic.

An important question, then, for characterizing a disorder is when the current episode began. Whether a "psychiatric case" is identified by random selection from the community or from a person seeking treatment from a mental health facility, researchers rarely interview their subjects at the very beginning of a psychiatric episode. Most survey research, then, produces samples with considerable heterogeneity in the duration of these conditions. Research evidence suggests that, for many disorders, the duration of the episode is associated with the risk of various clinical and social outcomes (Gilmer et al., 2008; Marshall et al., 2005; Sargeant, Bruce, Florio, & Weissman, 1990). Other evidence suggests that episode duration differentiates potential risk factors (Gilmer et al., 2005). Both sets of evidence argue for the inclusion of duration indicators in sociological analyses of risk factors and outcomes. For example, a considerable body of recent research has documented high rates of major depression in various medical care populations or in populations experiencing losses or other life events. These studies tend to assess patients either at one period of time or only at a long-term follow-up, so that little is known about the extent to which these depressions are transient, self-limiting reactions to the experiences associated with the need for care or, on the other hand, persistent and high-risk conditions that would potentially benefit from intervention.

Onset and Illness Course

Whether a given episode is a first or a recurrent episode is an important source of heterogeneity within a diagnostic category. For most psychiatric disorders, the strongest risk factor for the onset of an episode is whether or not the individual has a history of previous episodes (APA, 2000; see also, Kessler & Magee, 1994). Some evidence suggests that other risk factors also differ depending upon past psychiatric history. For example, Post (1992) argues that life events have a greater impact on the risk of a first episode of depression than on the risk of a recurrent episode. The rationale is that life events provide some of the kindling needed to ignite the initial depressive episode. Once started, the history of depression fuels subsequent episodes, regardless of life events. Similarly, the prognosis of any given episode tends to be worse if the individual has a history of previous episodes.

The terms used to describe the course of mental illness have traditionally been ill-defined and inconsistently used. To understand the kinds of phases characterizing an episodic course, the conceptualization developed by Frank and colleagues (1991) for major depression is illustrative. As operationalizations of these definitions are purposefully vague and depend upon the diagnostic schema and the assessment instruments used, they are presented both to suggest ways in which the elements of course can be incorporated into sociological inquiry and to provide a common language for this kind of analyses.

In this schema, an *Episode* is the period during which an individual meets full symptomatic criteria for the disorder. In the DSM-IV depression, for example, symptoms must last at least 2 weeks. *Remission* from the episode is defined as the interim period (e.g., 2 weeks to 6 months) during which the individual's symptoms have decreased sufficiently that he or she has only minimal symptoms and no longer meets full diagnostic criteria. *Partial remission* is a period of decline from the episode to full remission. *Response* (i.e., to treatment) is the point at which partial remission begins. *Recovery* from the episode (but not necessarily the illness per se) occurs when an individual remains minimally symptomatic beyond the defined period of remission (e.g., more than 6 months*). Relapse* occurs when symptoms meeting full diagnostic criteria reappear during the period of remission (but before recovery). *Recurrence* occurs with the reappearance of a new episode once recovered.

Heterogeneity with respect to past history has important implications for survey research on psychiatric illness. A random community sample will generally yield a disproportionately large number of recurrent or chronic cases compared to first onset cases, so that analyses of risk factors as well as outcomes will need to control for or stratify by past history. In many samples, the number of first onset cases will be too small for rigorous analysis. Another complicating factor is the tendency for respondents to forget or otherwise misreport previous psychiatric episodes and the need to control previous subclinical conditions in respondents without a history of diagnoses (Bruce & Hoff, 1994).

Additionally, history of previous psychiatric episodes calls into question the independence of potential risk factors from the illness itself. The goal of teasing apart the impact of sociological variables on course of illness from the impact of the illness on the social environment is particularly challenging with retrospective data but also difficult in longitudinal studies. What may be most important—or at least most attainable—is that the interplay among social and psychological factors through the course of time is incorporated into a conceptual framework for data analyses and their interpretation (Link, Mesagno, Lubner, & Dohrenwend, 1990; Miller et al., 1986).

Although identifying age of onset is essential for determining past psychiatric history, age of onset has also been implicated as an indicator of a source of heterogeneity in psychiatric illness.

In depression research, for example, patients whose first episode of depression occurs later in life (e.g., after age 60) tend to experience a different constellation of symptoms during their initial episode and have a different course and outcome than do comparably aged patients whose first onset was when they were younger (Alexopoulos, Young, & Meyers, 1993). Age of onset in this context represents a proxy indicator for some underlying source of heterogeneity among individuals meeting the same diagnostic criteria. In the case of late-life depression, patients with late onset tend to have a greater prevalence of vascular risk factors as well as more comorbid cognitive impairment, suggesting a distinct etiologic path (Alexopoulos et al., 1997).

Closing Thoughts

The past 40 years of sociological research on the risk for and outcomes of mental illness can be characterized by increasing concern with heterogeneity in psychiatric conditions. Assessment of overall mental illness was replaced with assessment of specific types of psychiatric problems. This chapter has focused on sources of heterogeneity within psychiatric disorders, specifically on dimensions such as severity, duration, onset, and course. One of the interesting questions in the face of increased differentiation in the psychiatric variable—whether as the dependent variable or as the risk factor for other outcomes—is whether links to social phenomena will be equally specific. Evidence points to both specificity and generalization. For example, in a prospective analysis of women who developed breast cancer, those with a history of major depression were significantly more likely than controls to be diagnosed with late stage breast cancer (predicting poorer chances of recovery), while women with anxiety disorders were significantly more likely than controls to be diagnosed with early stage breast cancer (Desai, Bruce, & Kasl, 1999). These findings underscore differences between anxiety and depression, in this case, in terms of women's help-seeking behavior and/or the clinical interaction between patient and provider. In contrast, other studies report shared social risk factors across different disorders. For example, poverty is associated with increased risk of depression, alcohol abuse, and phobia (Bruce, Takeuchi, & Leaf, 1991). Evidence of potential "fundamental causes" of psychiatric outcomes (Phelan, Link, & Tehranifar, 2010) poses equally important questions about the ways in which biological, social, and/or cultural factors link general risk factors to specific psychiatric phenomena.

Finally, whether mental health is assessed using continuous measures or diagnostic indicators, investigations into the relationships between mental health and social factors can be strengthened by incorporating additional psychiatric dimensions into these analysis. In particular, we need to more carefully incorporate the notion of time into our analyses and examine how social factors interact with the risk, expression, course, and outcomes of mental illness taking into account the longer-term context, at least in terms of age of onset, duration of the episode, history of past episodes, time to recovery, and so forth. Equally important is the assessment of severity. As noted above, current approaches to assessing severity, especially in terms of role functioning, are methodologically weak and could benefit greatly from sociological contributions. Well-measured indicators of severity offer great potential for specifying the ways in which social and psychiatric factors interact over time.

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Chapter 4
The Medicalization of Mental Disorder

Peter Conrad and Caitlin Slodden

Abbreviations

ADHD	Attention deficit hyperactivity disorder
APA	American Psychiatric Association
CDC	Centers for Disease Control
CHADD	Children and Adults for Attention Deficit Disorder
DSM	Diagnostic and Statistical Manual of Mental Disorders
DTC	Direct-to-consumer pharmaceutical advertising
FDA	Federal Drug Administration
GSD	Generalized anxiety disorder
LGBTQ	Lesbian gay, bisexual, transgender, queer
MBD	Minimal brain dysfunction
SAD	Social anxiety disorder
SSRI	Selective serotonin reuptake inhibitors

Most of the categories and diagnoses we now see as forms of mental illness were not always seen as mental disorders. This chapter examines how some conditions become defined as medical or psychiatric illnesses. While this is a large topic, we focus on several examples to enlighten the process and consequences of medicalization. After introducing the concept of medicalization, we present a brief historical overview highlighting how madness became mental illness. We follow this discussion with three contemporary cases that enable us to examine aspects of medicalizing mental disorder: The emergence and expansion of attention deficit hyperactivity disorder (ADHD), the promotion of social anxiety disorder (SAD), and the proposed removal of the exclusion of bereavement from the diagnostic criteria for major depressive disorder (MDD) in the Diagnostic and Statistical Manual of Mental Disorders, V (DSM-V). After a brief note on demedicalization, we point to some issues surrounding the future medicalization of mental disorders.

P. Conrad (✉) • C. Slodden
Department of Sociology, Brandeis University, Waltham, MA 02454-9110, USA
e-mail: conrad@brandeis.edu

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Medicalization

The medicalization of mental disorder can be seen as the original case of the medicalization of deviant behavior (Conrad & Schneider, 1992) and continues to be one of the largest arenas of medicalization (Conrad, 2007). The mounting number of psychiatric diagnoses can be seen as part of a larger trend, the medicalization of society. Over the past four decades, an increasing number of human conditions have been medicalized, including alcoholism, obesity, anorexia, posttraumatic stress disorder, erectile dysfunction, menopause, Alzheimer's disease, and sleep disorders. To these we can add the increased childhood diagnoses of attention deficit hyperactivity disorder (ADHD), Asperger's syndrome, and child bipolar disorder. The broad expansion of medical categories and their subsequent treatment have brought more individuals and life conditions and problems into medical jurisdiction.

Medicalization occurs when previously nonmedical problems become defined (and treated) as medical problems, usually as an illness or disorder. The main concern of medicalization researchers is how something becomes defined as medical and with what consequences. While one commonly expressed concern is "overmedicalization," medicalization describes a social process—like urbanization or secularization—that does not imply that the change is good or bad. Medicalization is dimensional and on a continuum; there are degrees of medicalization, with some conditions becoming more medicalized than others. For example, sexual addiction is contested and only minimally medicalized while major depression and schizophrenia are much more universally deemed medical disorders, at least in the USA. Medicalization is bidirectional; thus, we can also speak of demedicalization (e.g., masturbation, homosexuality), but there is no doubt that many more conditions have become medicalized. The huge expansion of diagnoses in the current American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders, IV (DSM-IV, APA, 2000) is testimony to that trend. Medical categories can expand or contract, as discussed in more detail below, with the case of ADHD.

Several social scientists have argued that medicalization is intensifying and has been transformed in the past two decades (Clarke, Shim, Mamo, Fosket, & Fishman, 2003). Conrad (2005) argues that the engines underlying medicalization have shifted. In the 1970s, physicians were key in medicalizing new conditions, but currently the pharmaceutical industry, consumer and advocacy groups, and the health insurance industry have become the most significant players in medicalization. Physicians are now often gatekeepers for medicalization, as exemplified in the pharmaceutical "mantra" of the twenty-first century, "Ask your doctor if (name of drug) is right for you." Drug company direct-to-consumer (DTC) advertising has become an important vehicle for medicalizing new categories and their drug treatments.

Before we present our three contemporary examples of the medicalization of mental disorder, we present a brief overview of how what historically was seen as madness became mental illness.

Historical Notes on the Medicalization of Mental Disorder

The conditions we now term mental illness (especially schizophrenia and bipolar illness) have been long recognized as individual and societal problems. They have variously been designated as madness, lunacy, mania, insanity, and mental illness depending on the era and context. The concept of madness as an illness has a long history in Western culture but it has not always been the dominant explanation for madness (Conrad & Schneider, 1992). While the roots of the mental illness conception can be found in Greece and Rome (Rosen, 1968), many sociologists locate the medical definitions and treatment of mental disorders in the early nineteenth century.

Several classic renditions of society's management of mental disorder are usually seen as the benchmarks for medicalized views of madness. Michel Foucault (1965), in *Madness and Civilization*, suggests that while eighteenth-century physicians did not have any viable explanatory theories or treatments, they became the gatekeepers and guardians of madness. He writes:

> The doctor's intervention is not made by virtue of a medical skill or power that he possesses in himself and that would be justified by a body of objective knowledge. It is not as a scientist that *homo medicus* has authority in the asylum, but as wiseman (Foucault, 1965, p. 217).

The physician came to mental disorder not as the healer of the sick but the guardian of the inept.

By the late eighteenth century, the concept of mental illness was becoming the dominant definition of madness. Benjamin Rush (1812), widely considered "The Father of American Psychiatry," was firmly convinced that patients afflicted by madness should be placed under the care of physicians (Deutsch, 1949) and published the first textbook in psychiatry in 1812, *Medical Inquiries and Observations, upon the Diseases of the Mind*. Rush defined a range of human behaviors as mental disorders, including lying, alcoholism, and crime. As David Rothman (1971) shows in his benchmark work, *The Discovery of the Asylum*, physicians, usually as asylum superintendents, saw mental disorder as a biological disease that was socially caused or at least precipitated by social forces. These early psychiatrists optimistically saw the discipline and regimentation of the asylum as the key to curing mental disorders. Over time, however, the asylums as public mental hospitals became overcrowded by chronic patients who were not cured, and by the late nineteenth century mental disorder was frequently considered biological and incurable.

The growing influence of psychiatry as a medical specialty was critical in legitimizing the concept of mental disorder as an illness. As Andrew Scull notes (1977, p. 344):

> The growing power and influence of what was to become the psychiatric profession helped to complete and lend legitimacy to [the mental illness concept]; transforming a vague cultural view of madness into what now purported to be a formally coherent, scientifically distinguishable entity reflecting and caused by a single underlying pathology [mental illness].

While there were few medical treatments by the turn of the twentieth century, those deemed mentally disordered were increasingly depicted as having a medical problem, a mental illness.

Although Freud himself did not deal with severe mental illness, some of his followers did and in the first half of the twentieth century, psychoanalytic theory dominated psychiatric thinking. Freud saw the origins of mental disorder more in conflicts of biogenic drives such as sex and aggression and sociocultural forces, although he did not stray too far from medical conceptions. Trained as a physician neurologist, the Freudian model of mental disorder was grafted onto the existing medical model with little difficulty. He and his followers usually treated patients with forms of psychoanalytic therapy. The Freudian gaze both muted and extended the medical model of mental disorder. It muted the biological emphasis by focusing on the intrapsychic nature of mental symptoms but also greatly expanded the notions of mental disease to include hysteria, obsessions, compulsions, homosexuality, drunkenness, sexual deviation, children's misbehavior among others, as psychological disorders and subject to medical psychiatric treatment.

The development of the Diagnostic and Statistical Manual of Mental Disorders (DSM) became the touchstone and official "bible" for designating mental disorder in the USA and increasingly internationally. The first edition (DSM-I, APA, 1952) was published in 1952 and strongly reflected the psychoanalytic influence in psychiatry. Subsequent editions, known as DSM-II (APA, 1968), III (APA, 1980) and IV (APA, 1994, 2000), both expanded and specified what behaviors, characteristics, syndromes, and the like could come under the jurisdiction of psychiatry and could be designated an mental disorders. In a major revision, the DSM-III reflected a consolidation and expansion of the biomedical view of mental disorder (APA). The latest major revision (DSM-IV, APA) now includes 297 distinct diagnoses of disorders and syndromes described in 886 pages, a huge increase from the earlier editions (Mayes & Horwitz, 2005). This reflects a proliferation of diagnoses including a greater range of human behavior. As researchers have shown, psychiatric diagnoses are not necessarily indicators of objective conditions but are better seen as a product of a negotiated interactive influenced by sociopolitical factors. Designation of a disorder in the DSM can be seen as a reflection of the influence of the psychiatric profession, the pharmaceutical industry, the health insurance interests, consumer and advocacy groups, and the current level of science (Cooksey & Brown, 1998; Kutchins & Kirk, 1997). Diagnoses related to behavior or cognition are frequently contested or controversial, but inclusion in the DSM reflects that the condition is legitimated as a medical disorder. While the DSM by no means includes all human conditions that are medicalized (Conrad, 2007), it is a diagnostic repository of legitimated psychiatric conditions.

We now turn to three contemporary cases of the medicalization of mental disorder, each shedding light on different aspects of medicalization.

The Emergence and Expansion of ADHD

It is likely there have always been children who were restless, impulsive, had difficulty paying attention, and were highly active. While some analysts suggest the behavior that we now call attention deficit hyperactivity disorder or ADHD was first described at the turn of the century (Mayes, Bagwell, & Erkultwater, 2009, pp. 46–48), for our purposes we can date "the discovery of hyperkinesis," as Conrad (1975) called it, to the late 1950s when it emerged as a diagnostic category (for a fuller analysis, see Conrad, 1976; Mayes et al., 2009, pp. 44–69).

In the mid-1930s, Charles Bradley (1937) observed an impressive effect of stimulant drugs in altering the behavior of a number of school children who had behavior or learning problems. Instead of stimulating the children, the drug seemed to calm them down. He deemed this as a paradoxical effect. It was not until the 1950s that there was a specific diagnosis "hyperkinetic impulse disorder" (Laufer, Denhoff, & Solomons, 1957), which also went by other names such as minimal brain dysfunction (MBD) or hyperactive syndrome. In 1968, the DSM-II identified MBD and other problems such as hyperkinetic reaction as a childhood disorder "characterized by overactivity, restlessness, distractibility, and short attention span, especially in young children; the behavior usually diminishes in adolescence" (APA, 1968, p. 50). The key features were both hyperactivity and inattention. In 1961, Ritalin was approved for treating hyperactivity and MBD in children and the pharmaceutical company (Ciba Geigy) began advertising the disorder and its treatment in medical journals. Children were diagnosed as hyperactive on the basis of their behavior and were typically identified by their disruptive behavior in school.

By the 1970s, hyperactivity was the most common psychiatric diagnosis among children and the typical treatment was Ritalin or other stimulant medications. It was estimated that 3–5% of school children were hyperactive, and 250,000–500,000 children were being treated with medications. This compares to the current Centers for Disease Control (CDC) estimate of 7% of children in the USA with ADHD and somewhere between four and eight million children being treated (Conrad, 2007).

In the 1980s, the name of the diagnosis shifted first to attention deficit disorder (ADD) (APA, 1980) and then to attention deficit hyperactivity disorder (APA, 1994). This indicted that the central characteristic of the disorder was no longer hyperactive behavior but rather difficulties in paying attention. This led to an increase breadth in the diagnosis, now including children who "space out" as well as those who "act up." One of the results of this change was the identification for more girls as ADHD; the boys to girls ratio dropped from 9:1 to 3:1.

At the same time, the notion that children "outgrow" ADHD or that it disappears for most children in adolescence was being challenged. Several longitudinal studies were reporting that there were indeed adolescents and even adults with hyperactivity or, using the terminology of the time, that ADHD often persists into adulthood (see Conrad, 2007, p. 50). In DSM-III, the range of behaviors became more comprehensive and less child-oriented, including "often acts before thinking" or "is easily distracted" (APA, 1980). This allowed for diagnosis of some individuals who would not have qualified under the DSM-II criteria (APA, 1968). By the time DSM-IV was published in 1994, ADHD became a more widely defined diagnosis that could now be a lifetime disorder (APA, 1994). As *Time* magazine put on its cover "ADHD: It's not just kids who suffer from it."

In the 1990s, a new phenomena began to emerge, "Adult ADHD." These were adults, never diagnosed previously, who typically came to their physician with a self-diagnosis of ADHD and frequently requesting pharmaceutical treatment. When asked why they thought they had ADHD, they responded with comments like "I read it in a book and I knew it was me" or "My kid was just diagnosed and I was just like him." While there was some professional writing describing ADHD in adults, one of the criteria for ADHD has been that the behaviors began before the age of 7. This was impossible to know with any certainty for these adults. Psychiatrist Edward Hallowell (Hallowell & Ratey, 1994) and a few other practitioners began to write about adults with ADHD and advocacy organizations like Children and Adults for Attention Deficit Disorder (CHADD) supported it and the phenomenon took off, without any specific research supporting the adult onset diagnosis or treatment.

At first, adult ADHD was promoted by consumers (seeking an adult ADHD diagnosis and treatment), a few professional advocates, and to a lesser degree, pharmaceutical companies (they were limited in their public advertising because the medications were only approved for use in children). It is certainly likely that many of the individuals seeing themselves as adult ADHD had difficulties with attention, work, organization, family, or managing their lives, but whether they had a psychiatric disorder might be another question. Conrad and Potter (2000) termed it "the medicalization of underperformance." Nonetheless by late 1990s adult ADHD was becoming more commonly written about in the popular and professional media and increasingly accepted as a potential diagnosis (Conrad, 2007). It is estimated that 4.4% of adults have ADHD (Kessler et al., 2006), and that perhaps four million adults are currently treated for ADHD.

As we trace the emergence and development of ADHD, we see that it has expanded from a childhood disorder that mostly affects overactive school boys to a lifetime attention disorder that affects children, adolescents and adults. In addition, the thresholds of what constitutes ADHD have broadened considerably casting a much wider net for the diagnosis. ADHD is now a lifespan disorder that has been diagnosed in preschoolers as young as two (Zito et al., 2000) and can either persist or emerge in adulthood. This case highlights that once a diagnosis is accepted, it can expand in terms of thresholds, characteristics, or age, thus increasing its medicalization without developing additional diagnoses.

The Promotion of Social Anxiety Disorder

Social anxiety disorder (SAD), also referred to as "social phobia," is characterized by an intense fear of social situations and feelings of embarrassment or shame while around other people. First appearing in the 1980 DSM-III as "social phobia," this new condition was characterized by a fear and dread of social encounters, including but not limited to speaking or eating in public, using public restrooms, and interacting with strangers or "important" people (DSM-III, APA, 1980). It was noted that sufferers often display physical symptoms such as sweating, nausea and shaking in anticipation of social situations. The revised 1994 DSM-IV expounded upon "social phobia" and further defined it as a distinction between social anxiety disorder (SAD) and generalized anxiety disorder (GAD), the latter referring to a more chronic (6-plus months) and multisymptom anxiety (APA, 1994, pp. 411, 435–436).

Estimates of SAD/GAD vary wildly, with some claiming that more than 12–19% of American adults are troubled by some form of social anxiety (Stein, Walker, & Forde, 1994). Others are more moderate about the widespread nature of SAD and place more conservative estimates at 6.8% of the American adult population (National Institute of Mental Health, 2009). In 1993, *Psychology Today* named SAD/GAD the "disorder of the decade," reflecting some researchers who identify social anxiety as the "third-most-common psychiatric disorder, behind only depression and alcoholism" (Lane, 2007, p. 5).

How did SAD become such a commonly diagnosed disorder? An examination of the complex relationship between the pharmaceutical industry's powerful marketing campaigns, medical professionals, and the general public are all part of the story. In a sense this raises the question about how shyness, a normal personality trait, became increasingly pathologized and subject to medical intervention in the past 15 years (see Lane, 2007 for a thorough explanation).

Researchers from various disciplines have been intrigued and concerned by the medicalization of society, including personality traits, personal characteristics, and behaviors (see Clarke et al., 2003; Conrad, 2007; Horwitz & Wakefield, 2007; Lock, 2001; Moynihan & Cassels, 2005; Zola, 1972). One of psychiatry's roles in society has been to draw lines between "normal" and "disordered" emotional states, behaviors, and conditions. This often has become fodder for medicalization researchers. In his 2007 book, *Shyness: How Normal Behavior Became a Sickness*, Christopher Lane writes, "Gone are the days when we could value exuberance *and* shyness, as well as a vast repertoire of similar moods. Today many psychiatrists and doctors assert that those who aren't sufficiently outgoing may be mentally ill" (Lane, 2007, p. 2, italics in original). This is not to suggest that social anxiety is not a real and severely debilitating problem for some; it certainly can be. The broader social issue, however, lies in the degree or extent to which this newly created diagnosis of SAD—and its subsequent treatment protocol—is being promoted to the public in what *Newsweek* calls a type of "psychopharmacological plastic surgery" (Grant, 1994), where people can become more social and outgoing, or similar to Peter Kramer's (1993) term, "better than well" (cf. Elliot, 2003).

Conrad (2005) suggests there are numerous engines of medicalization. The case of SAD emphasizes biotechnology, in particular the pharmaceutical industry, as a major player promoting the diagnosis and its treatment. Beginning with Eli Lilly's 1987 release of the blockbuster drug Prozac, other pharmaceutical companies developed similar selective serotonin reuptake inhibitors (SSRIs) to treat depression. By the late 1990s, SSRIs were the number one selling class of drugs in the USA, and fierce competition over market share among the drug companies ensued (Horwitz & Wakefield, 2007, p. 187). SmithKline Beecham's (now GlaxoSmithKline) SSRI Paxil (paroxetine hydrochloride) entered into the market relatively late in 1996, well after Prozac and Zoloft were approved by the Federal Drug Administration (FDA). Looking for an edge, the makers of Paxil chose to take advantage of the APA's internal struggles to define SAD/GAD in the DSM-IIIR, and they saw an opportunity to profit from these new (and loosely defined) mental disorders. In an internal company memo, Paxil executives honed in on SAD as a "highly debilitating illness" and wrote that there was "enormous [profit] potential" in promoting the drug for this disorder (cited in Lane, 2007, p. 105). The first thing on the agenda was to convince physicians and the general public that social anxiety disorder is an illness and not just a personality trait. In a word, they would promote Paxil for the anxiety market rather than join the crowded field in the depression market. But first they needed to promote social anxiety disorder as a psychiatric illness.

While it is fairly common for medical practitioners to prescribe drugs "off-label" (using drugs for an unapproved FDA indication, in an unapproved age group, in an unapproved dosage, or in an unapproved form of administration), the FDA prohibits pharmaceutical companies from advertising these off-label uses. Paxil was being used to treat SAD by some physicians but only in very small numbers. Lacking FDA approval, SmithKline Beecham was severely limited in its ability to raise awareness about SAD/GAD, both in the medical community and more generally (Davis, 2006). However, all that changed in 1999 when Paxil became the first SRRI to be approved by the FDA to treat SAD.[1] With FDA approval all but guaranteed, SmithKline Beecham took full advantage of the newly changed laws governing drug advertising, creating a prelaunch marketing campaign of unprecedented size and scope (Lane, 2007, pp. 123–125).

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[1] In 2000, Glaxo Wellcome and SmithKline Beecham merged to form GlaxoSmithKline. In 2001, GlaxoSmithKline's Paxil received FDA approval to treat GAD.

Two years prior to Paxil's FDA approval to treat SAD, the way in which Americans learned of medical conditions and treatments was revolutionized. Following New Zealand's 1980 lead, the USA became the second country in the world to allow broadcast DTC pharmaceutical advertising in 1997. The FDA opened the door for drug manufacturers and biotechnology companies to directly communicate to the general public via the mass media. In the past, drug companies were required to list all of the possible risks and side effects of a treatment, making it nearly impossible to advertise on radio or television. By dramatically reducing the amount of information required in advertising, the general public was now routinely exposed to a multitude of disorders and possible treatment options.[2]

In order to sell a drug, you first have to "sell" a disorder (Lane, 2007, p. 104). In the case of Paxil, SmithKline Beecham had to create demand and hype for its soon-to-be approved drug. They accomplished this by hiring New York-based public relations firm Cohn and Wolfe to orchestrate a massive "public awareness" campaign that overtly attempted to convert social anxiety into an illness. If SmithKline Beecham was to make Paxil a top-selling drug, SAD had to be transformed from a rare disorder to one that affects millions of seemingly normal Americans. To tap into the wells of potential patients, the SAD campaign made shy, introverted, or socially anxious people question their mental health, asking if they had ever been nervous at a job interview, a first date, or a social gathering (Davis, 2006). In early 1999, billboards, bus station stands, and magazine pages all over America were covered with pictures of dejected and nervous people with captions that read, "Imagine Being Allergic To People?" or "You Blush, You Sweat, Shake—Even Find it Hard to Breathe…That's What Social Anxiety Feels Like." To make social anxiety appear to be a common, albeit problematic issue, GlaxoSmithKline Beecham cited the most liberal epidemiological estimates, claiming that 13.3% of the population or one in eight American adults suffers from social anxiety (Koerner, 2002).

In the months preceding Paxil's FDA approval for SAD, Cohn and Wolfe's goal was to introduce the public to social anxiety, and their strategy worked—hundreds of newspapers, magazines, and television programs ran segments on SAD (Koerner, 2002; Moynihan & Cassels, 2005). These early print ads, along with public relations' supplied "news" stories featuring celebrity spokespeople, created an awareness about social anxiety, all without ever even mentioning GlaxoSmithKline Beecham, Paxil, or the drug's possible side effects.[3] By the time Paxil was approved by the FDA in late 1999, millions of Americans, including healthcare providers, were already "sold" on the idea that shyness could be a serious medical problem. In fact, the Cohen and Wolfe effort led to 1.1 billion media impressions of SAD in 1999 and won the public relations a prestigious award from the Public Relations Society of America (Moynihan & Cassels, 2005). It was time to (re)introduce Paxil to the world, not as the 1996 FDA-approved antidepressant, but as the first psychotropic solution to social anxiety. This would be a classic case of "condition branding," where the condition becomes connected to a brand just like a product (Angelmar, Angelmar, & Kane, 2007).

GlaxoSmithKline Beecham invested heavily first on their "prelaunch illness awareness campaign" and then on advertisements that included the Paxil name. The massive DTC marketing investment paid off—Paxil became one of the world's best-selling drugs of all time, with more than 5,000 Americans filling a prescription daily in large part to the fact that people took the DTC advertisements' advice and "asked their doctor if Paxil was right for them" (Lane, 2007, p. 105). Less than 2 years after Paxil's FDA approval for SAD, GlaxoSmithKline was making over $2 billion dollars annually just in the USA alone (Lane, 2007, p. 105). Although GlaxoSmithKline's SAD patent expired in 2007 and generic forms of paroxentine are now available, the story of Paxil's savvy marketing campaign is just one of many examples that illustrate the expanding role of medical markets in America's direct-to-consumer advertising age. Total pharmaceutical promotion grew from $11.4 billion

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[2] For a wider discussion of DTC advertising, see Conrad and Leiter (2008) and Moynihan and Cassels (2005).

[3] Some of the most common side effects for Paxil include feelings of nervousness, drowsiness, dizziness, sleep problems, nausea, constipation, weight change, decreased libido, and impotence (www.paxil.com).

in 1996 to $29.9 billion in 2005, including a DTC advertising increase of 330%. With DTC spending increasing at a rate of 20% annually, pharmaceutical promotion certainly will continue to play a critical role in medicalizing mental illness (Donohue, Cavasco, & Rosenthal, 2007).

Bereavement and Depression: Conflicts with DSM-V

Losing a loved one can be emotionally traumatic and is often accompanied by sadness, low mood, and a general sense of despair. A major debate surrounding the forthcoming fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) is the relationship between "normal" grief and clinical depression or major depressive disorder (MDD). The fifth edition of the DSM is expected in May 2013 and particular attention is being paid to MDD. In fact, the World Health Organization expects that depression will become the second leading cause of disability worldwide with heart disease being number one, and it currently costs the USA $43 billion dollars annually in lost productivity and treatment expenses (World Health Organization, 2011, http://www.who.int/en/).

The growth of MDD as a diagnosis can be attributed to multiple medical and cultural factors, including the transformation from the theoretically based DSM-I and -II to the symptom-based 1980 DSM-III edition and the development and marketing of selective serotonin reuptake inhibitors (SSRIs) in the 1990s. Although a thorough discussion of the medicalization of depression is beyond the scope of this chapter, it is important to note that psychiatry has been blurring the line between "normal responses to misfortune" and psychiatric disorders that require professional treatment for decades (Horwitz & Wakefield, 2007, p. xi). The currently available draft version revision of MDD in DSM-V proposes to medicalize grief, a move that will further expand psychiatry's jurisdiction to what many mental health professionals and social critics consider a natural, normal and adaptive response to loss.

In their book, *The Loss of Sadness*, Allan Horwitz and Jerome Wakefield suggest that psychiatry has conflated two distinct categories: normal sadness that results from life's challenges—the death of loved ones, a romantic breakup, job loss, etc.—and clinical depression by failing to take into account the contexts in which people become sad and withdrawn (2007, p. 14). Although they recognize that depression is indeed a very real and serious mental disorder affecting a subgroup of people, Horwitz and Wakefield put forth a compelling argument that psychiatry, and society in general, no longer appreciates that sadness can be functionally normal and nondisordered if it results from an appropriate trigger, if it is roughly proportionate in intensity to the provoking loss, and if it dissipates over a reasonable amount of time (Horwitz & Wakefield, 2007, pp. 24, 28).

The current DSM-IV requires that patients must experience at least five of the possible nine symptoms for longer than a 2-week period to receive a MDD diagnosis (depressed mood and/or diminished interest or pleasure in activities is required). The symptomatology includes (1) depressed mood, (2) diminished interest or pleasure in activities, (3) weight gain or loss or change in appetite, (4) insomnia or hypersomnia, (5) psychomotor agitation or retardation, (6) fatigue or loss of energy, (7) feelings of worthlessness or excessive or inappropriate guilt, (8) diminished ability to think or concentrate or indecisiveness, and (9) reoccurring thoughts of suicidal ideation or suicide attempt (DSM-IV, APA, 2000).

Importantly, up until this point, the DSM has made a critical and solitary contextual caveat in the criteria which precludes a MDD diagnosis: bereavement. Specifically, a MDD diagnosis is deemed inappropriate if the patient has recently suffered the loss of a loved one in the 2 months prior to seeking medical attention "unless the symptoms are associated with marked functional impairment or include morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation" (APA, 2000, p. 356). The bereavement clause is the only instance in which the DSM recognizes, albeit in a somewhat limited capacity, "normal sadness" that arises in response to a social loss or challenge. Addressing this bereavement exclusion, the DSM-IV states that a mental disorder cannot, by definition, be "merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one" (APA, p. xxi).

The DSM-V campaign to remove the bereavement exception would significantly widen the MDD diagnosis to include those patients grieving the recent loss of a loved one. Supporters of this effort claim that bereavement is a prototypical cue for depression, and in order to understand MDD, you must better understand, and potentially treat, grief (Rottenberg, 2010). Clinical psychologist Jonathan Rottenberg argues that 9 out of 10 people suffering from depression are able to accurately pinpoint a stressful life event that triggered their subsequent depression, and death/loss is the most virulent and frequent type of stress reported. The logic here, then, is that bereavement is a significant route to MDD and should therefore be treated as if it were the early stages of full-blown clinical depression rather than "normal sadness." As one supporter of the possible DSM revision states, "if bereavement throws you into depression, you're depressed" (Kramer, 2008).

Among the strongest proponents of this repeal are behavioral geneticists Kenneth Kendler, John Myers, and Sidney Zisook. In a recent study published in the *American Journal of Psychiatry*, they interviewed two groups of individuals, one of which was suffering from bereavement-related depression and the other group had depression caused by other, non-loss-related stressors. Kendler, Myers, and Zisook (2008) report that there were significant similarities between the two groups and as a result argue that "bereavement-related depression is probably similar to other forms of major depression" and that "bereavement-related depression is recurrent, genetically influenced, impairing and treatment-responsive…[which] are all characteristics that are more likely to be associated with major depression than 'normal sadness'" (2008, p. 1454). In a similar vein, Ronald Pies writes in an *Affective Disorders* op-ed that "bereavement-related depression does not significantly differ from non-bereavement related depression in terms of symptom picture, risk of recurrence, or clinical outcome" (2009, p. 1). Not surprisingly, the researchers promoting the repeal of the bereavement exclusion criteria express concern that sufferers may not be receiving the clinical treatment in a timely manner, regardless of the fact that grief is the precipitating factor for their distressed mental state (Corruble, Chouinard, Letierce, Gorwood, & Chouinard, 2009; Maj, 2008).

There are a number of supporters of the DSM grief exclusions clause, including Horwitz and Wakefield (2007), well-regarded psychiatrist Robert Spitzer who served as the editor of the DSM-III (APA, 1980), and Allen Frances, the editor of DSM-IV (APA, 1994), who fear that grief is becoming medicalized. Speaking of his concern over the upcoming edition, Frances does not mince words saying, "[DSM-V] is a wholesale imperial medicalization of normality that will trivialize mental disorder and lead to a deluge of unneeded medical treatment—a bonanza for the pharmaceutical industry but at a huge cost to the new false positive 'patients' caught in the excessively wide DSM-V net" (as cited in Silverman, 2009).

Every year roughly 2.5 million people die in the USA, each leaving about five individuals mourning their passing (Hensley & Clayton, 2008). Approximately half of all grief-stricken people will meet the diagnostic criteria for MDD after a month, and 24% will meet the criteria for MDD after 2 months (Hensley & Clayton, 2008; Jacobs, Hansen, Berkman, Kasl, & Ostfeld, 1989; Maj, 2008, p. 1373). There are likely to be myriad social consequences that would result if we were to label these mourners as mentally ill.

The role of the pharmaceutical industry interests needs to be mentioned here as well. It has been reported that an overwhelming number of individuals on the DSM-V panels have ties to the pharmaceutical industry (as grantee researchers, consultants, spokespeople, etc.). There is evidence that over half of the panel members have some financial ties with the pharmaceutical industry (Kaplan, 2009). While the pharmaceutical industry cannot have direct input into the DSM process, there is ample evidence to show that they have a major stake in promoting a wider definition of depression (Conrad, 2007; Horwitz & Wakefield, 2007) including bereavement. To put it simply, the pharmaceutical industry and its representatives have a vested interest in expanding the antidepressant market. Between 1996 and 2005, prescriptions for antidepressants rose from 10 to 27 million people (Olfson & Marcus, 2009). According to Health (IMS Health, 2010) antidepressants had about $10 billion in US sales in 2008, a major portion of pharmaceutical industry revenues. The expansion of the antidepressant market into bereavement would be a major boon for drug industry sales.

As noted, Horwitz and Wakefield (2007) have presented a complete discussion of the consequences of conflating "normal sadness" and mental illness. We build on their insights here. Commentators who are wary of medicalizing bereavement call attention to the fact that grief serves an important, long-appreciated social function, is expected and normal, and should therefore not be pathologized (Busko, 2008; Horwitz & Wakefield, 2007, p. 71). According to Frances (2010, para. 4), all mammals, including humans grieve: "Mammals grieve. It is the flip side and necessary price of that quintessential mammalian characteristic—attachment to our loves ones…Our lives consist of a series of attachments and losses. And then we die and others grieve for us. Man is not alone as a social, caring, empathic, and grieved social animal." Thus, pathologizing grief is not only unnecessary but it discredits and undermines its essential social function.

Regardless of whether or not one accepts the notions that grief may be an adaptive biological response that helps people send a "cry for help" to elicit necessary emotional support or the evolutionary theory suggesting that sadness in the wake of a loss may help quell feelings of aggression which can "lead to the serious injury or death of the defeated party" (Horwitz & Wakefield, 2007, pp. 48–50), there are reasons to be concerned about medicalizing bereavement. As Frances (2010, para. 8) notes: "The medicalization of grief sends just the wrong message to the misidentified 'patient' and to the surviving family. Grief is not an illness—it is part of the expectable human, or better the mammalian, condition. To mislabel grief as a mental disorder reduces the dignity of the life lost and of the survivors' reactions to its loss."

A Note on Demedicalization: Homosexuality and the DSM

The medicalization and eventual demedicalization of same-sex relationships has an interesting history (see Conrad, 2007, pp. 97–113; Conrad & Schneider, 1992, pp. 172–213). Here we want to only make a couple of points about the demedicalization of a previously medicalized condition.

During the nineteenth century, medicalized and pathologized views of homosexuality became prominent, especially in the writings of psychiatrists like Richard Kraft-Ebbing. In the early twentieth century, Sigmund Freud revolutionized the way psychiatry looked at a whole range of human problems. While Freud himself did not believe that homosexuality was an illness that could be cured, many of his followers like Edmund Bergler, Irving Bieber, and Charles Socarides all published articles and books about homosexuality as a mental disorder. The medicalization of homosexuality was formally legitimated in the DSM. Homosexuality was mentioned in the DSM-I (APA, 1952), and in the DSM-II (APA, 1968), it was clearly defined as a psychiatric pathology. Without giving a specific definition of what constituted the "condition," homosexuality in the DSM-II was categorized as a personality disorder, under "sexual deviation." It was now officially a mental disorder.

The 1960s was an era of social change and the rise of social movements challenging the status quo. It was the time of the civil rights movement, the anti-war movement, the environmental movement, and the beginnings of the second wave women's movement. The late 1960s also saw the emergence of a "gay rights movement" (decades later to morph into the lesbian, gay, bisexual, transgender, queer [LGBTQ] movement). Gay men and lesbians were now also demanding equal rights and an end to their oppression. As gays looked around for who was oppressing them, they turned to psychiatry, who in their official manual, defined homosexuality as a sickness (and in some circles, in need of psychiatric treatment to change their sexual orientation). The gay rights movement took offense to the medicalized definitions of homosexual and, in the language of the time, argued homosexuality was a lifestyle and not an illness.

Gay rights activists began to demonstrate at psychiatric meetings, disrupt particularly offensive presentations, make public challenges to the shaky "scientific" literature, and lobby both in and out of psychiatry for the removal of homosexuality as an illness diagnosis from the DSM. After several years of their campaign, the APA took a vote on whether to maintain or remove homosexuality from the DSM. In early 1974, APA members voted that homosexuality in and of itself was not an illness and only individuals who were unhappy with their sexual orientation, now called "sexual orientation disturbance," would be a psychiatric concern. Essentially, homosexuality was demedicalized (for specifics of this case, see Conrad & Schneider, 1992, pp. 172–213).

This example suggests that although social construction of mental disorders can increase the medicalization of human problems, in rare cases it can also produce the demedicalization of a mental disorder. But we need to emphasize its infrequency. The homosexuality case is the only obvious case of psychiatric demedicalization in the past half a century. It seems clear the main force toward demedicalization was the activists' politicization of the homosexuality diagnosis and, probably to a lesser extent, the fact that homosexuality was only treated by a relatively few psychiatrists and that there was no real "effective" treatment. The demedicalized status of homosexuality has remained, despite a variety of scientific and popular changes (Conrad, 2007, pp. 98–113).

Concluding Remarks

The medicalization of mental disorder is the process by which particular human conditions become defined and treated as medical or psychiatric problems. The medicalization of mental disorder has deep roots in Western culture and continues in both general and specific ways in contemporary society. We examined three cases here and each reflects a different facet of medicalization. ADHD is an example of a problem that was first medicalized as a childhood diagnosis, but once established expanded its threshold and age range so that it is now seen as a lifespan disorder. Social anxiety disorder was a minor and relatively little used diagnosis until the manufacturers of Paxil first advertised SAD widely to the public and then promoted Paxil as the appropriate treatment for this newly defined disorder. Drug marketing was central here to the medicalization. The expansion of depression to include bereavement is an effort to expand the DSM to include normal grief as a psychiatric disorder; this potential medicalization has been contested by experts on different sides of the controversy. Our examples also reflect different engines underlying the medicalization: consumers with adult ADHD, the drug industry with SAD, and psychiatric professionals with bereavement.

The DSM-V emphasis on dimensionalism of different disorders (instead of specific disorders) may result in greater movement on the medicalization continuum. More "shadow disorders" (mild differences, not full-blown disorders) and risk factors for more major disorders may shift the threshold when someone becomes diagnosed and treated and lead to the greater medicalization of life's difficulties.

There are certainly benefits to medicalization of mental disorder including providing individuals with serious conditions psychiatric help (including medications) that may help them live a better life. It is unclear whether public acceptance of the disease model for problem conditions has any significant impact on the stigmatization of mental disorder (Pescosolido et al., 2010). However, as Conrad (2007) points out, medicalization can also have some troubling consequences for society. We will end with noting three that continue to raise sociological issues: (1) the pathologization of everything, turning all human difference into medical problems; (2) creating medical definitions of normality, whether it is behavior, body shape, or learning abilities; and (3) focusing primarily on the individual and generally minimizing the social context, which may contain the source of the problem. These and other considerations suggest we need to remain vigilant in our examination of the widening medicalization of mental disorder.

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Chapter 5
Public Beliefs About Mental Illness

Jason Schnittker

Abbreviations

APA	American Psychiatric Association
DSM	Diagnostic and Statistical Manual
DTC	Direct-to-consumer advertising
GSS	General Social Survey
IAT	Implicit Association Test

Public beliefs about mental illness reveal much of interest to sociologists. Public beliefs speak to how society treats deviance and what society thinks are its causes. Beliefs help explain why people do or do not seek treatment and what particular treatments they consider effective. Public conceptions bear the imprint of long-standing cultural legacies, including theologies, but they also reflect the influence of modern science and the secular-rational mindset. Public conceptions reflect, to some degree, moralism and the castigation of outsiders, but they also reveal, at times, the wide parameters of what the public is willing to accept as natural. These points of view suggest how seriously the public considers the symptoms of psychiatric disorder, but they also occasionally indicate how unwilling the public is to provide long-term assistance consistent with that provided for physical illness. Although beliefs about mental illness and treatment progress in some fashion—there have been some especially remarkable changes over the last decade corresponding to the public's embrace of a biomedical approach—a number of beliefs remain remarkably stable over very long periods of time, especially those regarding dangerousness. Without minimizing the many successes of modern medicine or the extraordinary efforts of advocacy groups, historians are readily able to draw parallels between public beliefs in the late twentieth century with public beliefs in ancient Greece (Simon, 1992).

In this chapter, I review recent research on public beliefs about mental illness, drawing primarily on research conducted in the last 20 years and mostly in the USA. Sociology has contributed a great deal to the scientific understanding of public beliefs and the last decade has seen a surge of rigorous empirical evidence and analysis. I begin with a review of basic patterns in beliefs, including research

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J. Schnittker (✉)
Department of Sociology, University of Pennsylvania, 3718 Locust Walk,
Philadelphia, PA 19104-6299, USA
e-mail: jschnitt@ssc.upenn.edu

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on recent trends, before turning to a discussion of stigma, attitudes, and the behavioral consequences of beliefs. Although there are a variety of ways to understand public beliefs and attitudes, I give particular attention to their complexity in order to encourage a more expansive framework and some alternative interpretations. In focusing, for example, on mental health "literacy" or the assorted attitudinal "barriers" to treatment, researchers have concentrated on the consistency of lay beliefs with professional assessments, assuming a closer alignment of the two will lead to better treatment behavior and less stigma. This approach is useful for, among other things, lending insight into the growing rate of pharmaceutical treatment, but by crediting public beliefs at their face value, we can begin to appreciate the meaning of public beliefs and better understand their sources. Americans' beliefs about mental illness are not always born of a lack of knowledge, nor is their skepticism necessarily a product of misunderstanding. Below the surface of the assorted studies, findings, and theories reviewed in this chapter, there are more paradoxes than is generally acknowledged—and perhaps also more grist for sociological insight.

Beliefs About Causes

Perhaps the most prominent source of information on contemporary beliefs is the General Social Survey (GSS), a biennial national survey conducted by the National Opinion Research Center, which contained a topical module on mental illness in both its 1996 and 2006 waves (entitled "Problems in Modern Living") (Davis, Smith, & Marsden, 2009). In the two modules, respondents were presented with short vignettes depicting a person with one of three disorders—schizophrenia, depression, or alcohol dependence (cocaine dependence was included in 1996, but not in 2006)—based on the clinical criteria established in the *Diagnostic and Statistical Manual*, Version 4, of the American Psychiatric Association (APA, 2000), after which they were asked a series of questions about the person, including what caused the person's problem, how serious the problem was, and what the person should do about it. Respondents were also asked assorted questions about personal experiences with mental illness, which are usually included as control variables in studies of beliefs (later I discuss the effects of personal contact on stigma). In addition to these two waves of data, other waves include additional beliefs relevant to the topic, including one in 1998, which contained questions regarding beliefs about psychiatric medications, and one in 2002, which contained questions regarding beliefs about children's mental health.

Some general patterns are evident across the assorted waves of the GSS. First, Americans endorse a complex causal model, not clearly emphasizing nature or nurture or stress or biology (Schnittker, Freese, & Powell, 2000). For example, support for biomedical causes (e.g., chemical imbalances, genetics) is high overall and particularly high for severe disorders, with 67% endorsing biomedical causes for major depression and 86% for schizophrenia (in 2006) (Pescosolido et al., 2010). At the same time, however, 67% attribute major depression to the normal "ups and downs" of life and 41% attribute it to family upbringing. Although one set of beliefs emphasizes nature and the other nurture, the two are not inconsistent in fact or in public belief. Among those who support a genetic argument, for example, there is little evidence that they support a purely genetic argument, insofar as they endorse less biological argument as well (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999b). The correlates of genetic beliefs suggest additional complexity and nuance. For example, the nonlinear relationship between genetic attributions and other beliefs—a partial genetic endorsement is not simply a weaker dose of an entirely genetic endorsement (Phelan, 2005)—suggests that Americans appreciate a gene-environment model and do not interpret genetic "influence" as genetic "determinism" (Lock, Freeman, Sharples, & Lloyd, 2006). In the same vein, the public does not ascribe a biomedical model for all behaviors and emotions, disordered or not. The 1996 GSS module included a control vignette describing a person with ordinary problems that mimic psychiatric symptoms but do not constitute a disorder (e.g., the vignette person was described as feeling worried or nervous sometimes, a little sad, or having trouble sleeping). This “troubled person” did not elicit a biomedical response: virtually all Americans attribute the person’s problem to the normal “ups and downs” of life (96%) and very few interpret it as chemical (5%) or genetic (5%) in nature (Link, Phelan, et al., 1999b). There may be a genetic component to many behaviors, but Americans appear to reserve strong genetic arguments for more severe behavioral conditions. In general, there is little evidence that Americans endorse a causal model that is entirely inconsistent with that of clinical medicine. Very few Americans, for example, believe mental illness is a reflection of God’s will, despite the importance of religious explanations in other domains (Link, Phelan, et al., 1999b) and the enduring alignment of mental illness with sin in some religious traditions (Dain, 1992). Similarly, few Americans attribute depression or schizophrenia to “bad character” (38% and 33%, respectively), although the explanation remains popular for alcohol dependence (51%) (Link, Phelan, et al., 1999b) and a variety of other behaviors and outcomes (Gilbert & Malone, 1995). In short, Americans are not reaching for the same explanations they use to explain ordinary behavior when they are asked to explain psychiatric disorders.

Furthermore, endorsement of a biomedical model is largely consistent across social groups. To be sure, African Americans are skeptical of genetic arguments, perhaps owing to the historical misuse of such arguments against them, but in general there are no strong associations with other demographic characteristics and, even in the case of African Americans, their skepticism over genetic arguments in particular is not a categorical rejection of all biological arguments (Schnittker et al., 2000). For example, African Americans are more likely than whites to believe that mental health professionals can help with mental health problems, even if they are also more likely to believe mental health problems will improve on their own (Anglin, Alberti, Link, & Phelan, 2008).

Reflecting their beliefs about the causes of mental illness, Americans generally endorse medical treatment for psychiatric disorders, including psychiatric medications. Indeed, support for medical treatment often exceeds support for the concept of mental illness. Virtually all Americans, for example, endorse talking to a doctor for those with depression (91%) and most endorse taking prescription medication (79%). Among those who have heard of Prozac™, most correctly identify what the medication is used for, referring specifically to depression (44%) or, in fewer cases, to mental illness more generally (Martin et al., 2005). Although only 50% of Americans believe alcohol dependence is a mental illness, 89% recommend talking to a doctor about it, 79% recommend talking to a psychiatrist (Pescosolido et al., 2010), and an even larger fraction endorse informal treatment—like talking to family and friends (Pescosolido et al., 2000). It is possible that the public’s enthusiasm for professional treatment merely reflects an undiscerning checklist approach to solving a problem—that is, believing that those with mental illness should probably do *something*, resulting in positive responses to the many treatments proffered in the GSS modules—but even the degree of support for treatment is strong. Evidence from the Behavioral Risk Factor Surveillance System, for example, indicates that 62.8% of Americans agree “strongly” that treatment can help persons with mental illness lead normal lives (Centers for Disease Control and Prevention, 2010).

Yet, this apparently strong enthusiasm for medical treatment for others does not mean that the public is willing to take medications themselves or that the public is confident in a cure. Although the public’s support for treatment is high when responding to a vignette character, when asked whether they would personally take psychiatric medications, their support drops considerably. Only 41% say they would take medications if they were feeling depressed, tired, worthless, or were having trouble sleeping and concentrating—all symptoms of major depression (Martin et al., 2005). Even severe symptoms occasion only slightly more support. Only 56% would take medications if they were, for no apparent reason, experiencing intense fear, trembling, sweating, and dizziness. Furthermore, not all biomedical arguments are equally strong in encouraging treatment or in their implications for the effectiveness of treatment. Endorsing biomedical causes (e.g., chemical imbalances) is positively related to endorsing biomedical treatments (e.g., psychiatric medications), but support for genetic arguments decreases confidence that biomedical treatments will result in a cure (Lincoln, Arens, Berger, & Rief, 2008; Phelan, Yang, & Cruz-Rojas, 2006). Even though the public recommends psychiatric medications for most disorders, they also believe psychiatric medications do more to treat the symptoms of mental illness than the cause (Angermeyer, Däumer, & Matschinger, 1993). Mirroring the public's multidimensional beliefs about the causes of mental illness, the public also endorses multiple treatments simultaneously and does not strongly prefer biological and formal treatments (e.g., psychiatric medication or talking to a psychiatrist) to more social or informal ones (e.g., self-help groups) (Pescosolido et al., 2000).

The public's enthusiasm for treatment also is mixed, with apprehension regarding some particular applications and concern about occasional medical overreach. While Americans believe depression is generally more serious among children than adults, they have reservations about the treatment of childhood behavioral disorders and may set a higher threshold (Perry, Pescosolido, Martin, McLeod, & Jensen, 2007). Most Americans, for example, are willing to use psychiatric medications for children who have expressed suicidal statements, but most are unwilling to use psychiatric medications for treating oppositional behaviors or hyperactivity, even though these behaviors are symptomatic of certain psychiatric disorders (McLeod, Pescosolido, Takeuchi, & White, 2004). The vast majority of Americans (86%) believe that physicians overmedicate children (Pescosolido, Perry, Martin, McLeod, & Jensen, 2007). A general concern with overuse also is evident in beliefs about how long individuals should take psychiatric medications. Nearly half of individuals believe that people should stop taking psychiatric medications when their symptoms abate (Martin et al., 2005). In addition, support for psychiatric medications in general seems to be higher than support for specific medications, including Prozac™ (Martin et al., 2005), especially among African Americans (Schnittker, 2003). The skepticism of the public regarding overuse is not obviously related to concern over side-effects, as the fraction of the public who see psychiatric medications as effective far exceeds the fraction worried about side-effects (Martin et al., 2005). Whatever the cultural resonance of claims regarding the side-effects of antidepressants for personality or creativity, side-effects do not appear to be an especially powerful concern for most of the public.

As noted, much of the evidence on public beliefs has been drawn from the GSS. A key feature of the survey's design is both a strength and limitation. The GSS follows a tradition—established by Shirley Star in the 1950s (Star, 1955) and expanded by Derek Phillips in the 1960s (Phillips, 1963)—of using vignettes to assess beliefs. The information contained in the GSS vignette was, by design, minimal: along with basic demographic information regarding, for example, sex and race, respondents were only presented with descriptions of symptoms minimally sufficient to reach a diagnosis of a specific disorder. From this vignette, respondents were asked a variety of questions meant to assess their preexisting beliefs about a particular disorder. Thus, for example, GSS respondents were asked questions about the potential causes of the person's condition, but they were not presented with any explicit information about actual causes. As has been noted by others (Phelan, 2005), this empirical strategy is consistent with the "theory neutrality" of psychiatric nomenclature—by design, the Diagnostic and Statistical Manual (APA, 2000) avoids discussing causes in favor of describing symptoms—but the strategy introduces uncertainty regarding the effects of beliefs and, by extension, the effects of efforts to educate the public. This is not an inconsiderable limitation, as much of the research has been concerned with the consequences of beliefs, including, for example, whether endorsing genetic causes leads to more support for medical treatment, and abides by this causal idea when interpreting correlations. But it is possible that beliefs about causes and beliefs about treatment are determined by another worldview, rather than treatment being a reasoned reflection of what one believes causes a disorder.

A related issue pertains to the information contained in a diagnosis—specifically what additional information a label provides someone observing symptoms. As noted, the vignettes in the GSS only present the symptoms sufficient to reach a diagnosis of a disorder; they do state explicitly that the person has the disorder. This strategy is specific in that it avoids allowing respondents to infer for themselves what a disorder is, as might be the case if respondents were simply asked about "mental illness" or a "nervous breakdown." But it introduces ambiguity regarding whether respondents are reacting to symptoms or to disorders. To be sure, respondents were asked if the symptoms were consistent with the given disorder subsequent to being presented with the vignette (e.g., how likely is this condition depression?), but the GSS cannot be used to evaluate the effects of labels, per se. The implications of this are unclear, although there is evidence that labels affect how symptoms are interpreted (Link, Cullen, Frank, & Wozniak, 1987) and it is possible that beliefs about the causes of a stated disorder are different from beliefs about the causes of the cluster of symptoms constituting that disorder. For these reasons, presenting a label might produce more than a simple mean shift in responses. At a minimum, it is clear that assessments of severity are strongly related to support for treatment, and a label may imply greater severity than a narrative enumeration of sufficient symptomatology. In other words, the public's strong support for treatment and their enthusiasm for a biomedical model, as expressed in the GSS, seem real and may be understated. There is some research on when the public decides symptoms constitute a disorder, to which I now turn.

Public Interpretations of Symptoms and the Boundaries of Disorders

Sociologists have long been concerned with the boundaries of mental illness, best exemplified in the categorical versus dimensional controversy in quantitative studies of distress (see Horwitz, 2002 for a review). There is a corollary to this controversy in research on public beliefs. For a variety of reasons, it is important to understand the implicit threshold the public uses to distinguish ordinary suffering from illness and, thus, to distinguish normal from abnormal. It is important for those concerned with treatment, as the decision to seek treatment implies that a patient has interpreted his/her experiences as symptomatic of a disorder. It also is important for those concerned with stigma, as a stigma is fundamentally a "mark" that distinguishes in- and out-groups and, thus, is not a matter of degrees. With little information on how the public separates ordinary problems from disorders, and how porous they perceive the boundaries between the two, it is difficult to understand how stigma operates (Link & Phelan, 2001).

A number of studies have been concerned with whether the public can correctly identify psychiatric disorders. These studies point to partial and often incorrect understandings. Swami, Persaud, and Furnham (2010) explore the recognition of mental health disorders by presenting respondents with 20 descriptions, consisting of both real disorders based on DSM-IV criteria (e.g., schizophrenia) and foil disorders that have no basis in formal diagnostic criteria but are written to resemble them (e.g., "multiple identity replication"), and asking participants to distinguish between the two. In general, the public made accurate distinctions—the public did not simply assign the label mental illness to all abnormal behavior, as might be the case if the public is too quick to assign diagnoses to deviance—although the degree of recognition varied between disorders. Recognition was highest for schizophrenia and anorexia nervosa, somewhat low for antisocial personality disorder, and lower still for unfamiliar but real disorders, such as paruresis.

In addition, the public is better at recognizing certain types of symptoms over others, particularly affective symptoms relative to somatic ones (see also Regier et al., 1988). For example, the public readily acknowledges depressed mood as a symptom of depression, but other symptoms of depression (e.g., sleep problems, agitation) are not as readily recognized as indicative of the same (Lauber, Ajdacic-Gross, Fritschi, Stulz, & Rössler, 2005). This is a potentially important feature of public beliefs: if the public increasingly appreciates the biological causes of mental illness, it continues to emphasize its emotional exterior. In addition, the public demonstrates more sensitivity than specificity in the sense that it easily recognizes many of the symptoms of mental illness, but cannot as easily assign these symptoms to specific disorders (Lauber et al., 2005). Furthermore, the set of symptoms comprising what the public thinks mental illness is may be expanding: when asked to describe the symptoms of mental illness, the public reports a wider variety of symptoms now than they did in the past (Phelan, Link, Stueve, & Pescosolido, 2000). All these data suggest that the public may lack the sort of specificity that remains a hallmark of the psychiatric enterprise, but, even so, the public's expanded definition of mental illness closely parallels another development in psychiatry: the first version of the DSM, published in 1952, contained 106 diagnoses, whereas the fourth version, published in 1994, contained 297 (Mayes & Horwitz, 2005, see, in particular, Table 1). In at least this important respect, the evolution of public beliefs closely parallels the trajectory of professional psychiatry. Recognizing the reflexive nature of psychiatric nomenclature as evident in these trends, those leading the fifth revision of the DSM have actively solicited public input by depositing draft revisions of the manual online, receiving more than 8,600 comments (Regier, Kuhl, Kupfer, & McNulty, 2010).

Although the public can distinguish among psychiatric disorders to some degree, there also is evidence that the public at least implicitly appreciates the permeable boundary between well and sick. For those concerned with mental health literacy, this evidence may be reassuring insofar as it suggests the public does not consider mental illness an entirely foreign or extraordinary experience. In 1996, for example, about one-third of Americans reported having felt at some point that they were going to have a "nervous breakdown" or that they had some other mental health problem. In addition, the events the public reported as precipitating these feelings were not unusual: the most commonly reported events were related to relationships and work (Swindle, Heller, Pescosolido, & Kikuzawa, 2000). Furthermore, the public recognizes that some psychiatric disorders will abate, much like other physical illnesses that are otherwise serious. For example, about 28% of Americans believe that most of those who do not get professional treatment will get better on their own, a percentage that has not changed over time, even as more people have sought treatment (Mojtabai, 2007). Similarly, nearly 80% of Americans believe that depression is part of the normal "ups and downs of life," even as nearly 70% characterize depression as an illness (Link, Phelan, et al., 1999b). Although these beliefs are perhaps strange to those who equate seriousness with requiring treatment, they are not inconsistent with the facts: descriptive epidemiology finds that psychiatric disorders are common, but that many are self-limiting (Kessler & Wang, 2008). In addition, the public does not equate biological explanations with the idea that psychiatric disorders are innate. Research shows that being presented with information on genetic causes increases the perceived seriousness of mental illness, but it does not increase perceptions about how "fundamentally different" persons with mental illness are from others (Phelan, 2005). The public may see mental illness as serious and occasionally necessitating treatment, but the public also believes mental illness can happen to virtually anyone as a result of the events of everyday life.

Beliefs as Barriers to Treatment

Beliefs about mental illness have a number of behavioral consequences, beginning with the decision to seek professional treatment. As noted above, the vast majority of Americans believe treatment is effective and recommend it for those suffering from mental illness. However, the public's recommendations for others do not seem to translate into their personal behaviors. Most of those with a psychiatric disorder, for example, do not receive treatment and many of those who do seek treatment drop-out prematurely (Kessler et al., 2005). The decision to seek treatment follows a chain of decisions: individuals evaluate the significance of their symptoms, decide whether their symptoms constitute a disorder, and choose whether or not their disorder would benefit from treatment (Mechanic, 2002). Each of these stages can be influenced by beliefs and, indeed, studies of unmet need consistently report attitudes/beliefs are the primary barrier to care, exceeding the influence of otherwise formidable structural factors (e.g., insurance, finances) (Mojtabai et al., 2010;

Sareen et al., 2007). In the National Comorbidity Survey Replication, the most recent round of high-quality nationally representative data, low perceived need was reported by 45% of respondents with a disorder who did not seek treatment (Mojtabai et al., 2010). Among those who reported some need for treatment, attitudinal factors were reported as a reason for not seeking treatment more frequently than structural barriers (97% vs. 22%), with wanting to handle the problem on their own being the most commonly offered explanation. Reflecting the sort of distinctions the public draws between disorders, as discussed earlier, the relevance of beliefs to treatment behavior varies by the severity of the condition: low perceived need is a more common explanation for not seeking treatment in the case of mild and moderate disorders than in the case of severe disorders, and the importance of structural barriers increases with the severity of the disorder. Even in the case of severe disorders, however, the importance of attitudinal barriers exceeds that of structural barriers (98% vs. 39%) (all from Mojtabai et al., 2010).

Although attitudinal factors are important overall, they do more to explain unmet need than to explain sociodemographic differentials in treatment behavior. Sociodemographic factors are only inconsistently related to perceived need (Mojtabai, Olfson, & Mechanic, 2002; Schnittker, Pescosolido, & Croghan, 2005). For example, African Americans use services less frequently than whites and report some skepticism surrounding genetic arguments in particular, but they also report more positive attitudes toward mental health treatment in general (Anglin et al., 2008; Mojtabai, 2007; Schnittker et al., 2005). Similarly, women may seek medical treatment for psychiatric disorders more often than men, but once they decide to seek treatment, they are less likely to go to a specialist (Mojtabai et al., 2002). The reluctance to seek treatment should not be conflated with a lack of insight or sophistication. Although education is positively related to general health literacy, for example, it is negatively associated with perceived need among those with psychiatric disorders, suggesting the desire to treat the condition on one's own increases with education (Mojtabai et al., 2010). Similarly, African Americans may seek treatment less than whites not because they believe mental health professionals cannot help (as noted, African Americans are, in fact, more confident in the abilities of such professionals), but because they think mental health problems are self-limiting and, therefore, seek nonprofessional help first (Anglin et al., 2008). One possible reason beliefs are an especially important determinant of treatment behavior is simply that sociodemographic variables have countervailing influences along the pathway to care.

Beliefs and attitudes are traditionally considered "barriers" to care, but there are really two dimensions to the problem of utilization. On the one hand, most Americans with a psychiatric disorder do not receive treatment, and part of the problem stems from not perceiving a need for treatment (Wang et al., 2005). On the other hand, a large fraction of those receiving treatment have no obvious need for it, having neither a diagnosable psychiatric disorder nor significant social impairment (Kessler et al., 1997). For those interested in the role of beliefs in treatment, then, the question of appropriate utilization is really double-sided: what beliefs prevent those who might benefit from treatment from receiving it and what beliefs encourage those with little obvious need for treatment to seek it? It is possible that familiarity with psychiatric treatments encourages a proactive approach with respect to distress, but this behavior is not rewarded in any obvious way: those with no symptoms or moderate symptoms do not benefit from antidepressants, meaning there is no clinical benefit to consuming one of the most common treatments (Fournier et al., 2010). There may be sociocultural beliefs that shape how individuals approach services, but, if so, it is unclear what these beliefs are. Along these lines, the relationship between the need for psychiatric services and utilization is weaker in the USA than in Ontario (Kessler et al., 1997): in the USA, those with no disorders report more need for psychiatric treatment than those in Ontario, while those with two or more disorders report less. Furthermore, these differences are consequential: the greater utilization of psychiatric services in the USA is driven primarily by those with low need. The reasons for these discontinuities are not clear, but some possibilities reflect the influence of beliefs, including that patients in Canada are better educated about appropriate utilization or have a more stoic approach to mild suffering.

Despite the focus of the above studies on mental health and psychiatric treatments, it is important to note that the process leading to mental health services is not entirely different from that leading to physical health services. For one, the public tends to think about mental health in terms of "health" more generally. Overall evaluations of health are a key determinant of when individuals decide to seek treatment, and mental health is not absent from these evaluations. When asked to rate their own health from poor to excellent, individuals consider a broad array of factors, including pain and somatic symptoms, but they also consider mental health and, indeed, weigh mental health heavily relative to other forms of morbidity, especially as they get older (Schnittker, 2005). Likewise, one potential barrier to treatment is the belief that the symptoms of mental illness are not enough to constitute a treatable condition. At least implicitly, then, the "soft" symptoms of mental illness are seen as different from the "hard" symptoms of physical illness. Yet individuals routinely seek treatment for physical health services on the basis of weak and ill-defined complaints (Mechanic, 1975). Furthermore, as in the case of mental illness, there is a considerable gap between "true need" and service utilization in the case of physical illness. Although most people experience some illnesses or injuries in any given month, less than half receive services for them (Green, Fryer, Yawn, Lanier, & Dovey, 2001). In mental health, researchers are concerned with whether the public believes mental illnesses are "real" in some sense, but the issue of severity assessment and, indeed, the reality of symptoms is more general and applies to physical health as well.

Stigma and Prejudice

Much of the literature on public beliefs ultimately is concerned with the stigma of mental illness—treatment and support for a biomedical model may go up, but if these do not produce parallel declines in stigma, the situation of those with mental illness remains poor (see Chap. 25). Stigma can be measured in a variety of ways, but perhaps the most common assessments pertain to social distance, or measures of a person's willingness to interact with someone in various settings, from casual (e.g., talk to the person) to intimate (e.g., marry the person) (Link, Yang, Phelan, & Collins, 2004). Measured in this fashion, the stigma of mental illness varies between disorders, following closely the observers' assessments of dangerousness. Even so, the stigma of mental illness is quite high even for conditions that entail little or no obvious danger. For example, 47% of Americans report being unwilling to work with someone with major depression and 53% report being unwilling to allow such a person to marry into their family, but only 32% believe that someone with major depression is dangerous to others (Pescosolido et al., 2010). Social distance is even more pronounced for persons with schizophrenia or alcohol abuse, who are seen as far more dangerous to others (84% and 79%, respectively). Most Americans are unwilling to work closely with (62%) a person with schizophrenia or even socialize with such a person (52%). The same is true of alcohol dependence, where the reluctance is, if anything, stronger. Approximately 74% are unwilling to work closely with someone with alcohol dependence and 79% are unwilling to let that person marry into their family. These reports are even more remarkable when one considers the porous boundaries between sick and well discussed earlier: even though the public seems to recognize that mental health problems can strike anyone, they still view those with mental illness in a negative fashion, as the "other" to avoid in work and family.

Severe disorders are the focus of much of the research on stigma, primarily because of their association with dangerousness, but dangerousness is not the only source of stigma and, for this reason, less severe disorders are not necessarily less stigmatizing. Indeed, if those with severe mental illness are occasionally viewed with sympathy or assumed to suffer from conditions over which they have little control, those with less severe disorders, whose deviance is more circumstantial and periodic, may be granted less tolerance precisely because their symptoms seem more willful (Hinshaw & Stier, 2008). In a focus-group study, Barney, Griffiths, Christensen, and Jorm (2009) find high levels of what they characterize as “repellence” related to the negativity of depression mixed with strong perceptions of blameworthiness, especially in cases where the person’s depression cannot be accounted for by a sufficiently severe source of stress. In addition, social norms against prejudice (e.g., “you should be ashamed of yourself for mocking that sick man”) may be less settled for conditions on the margins of cultural legitimacy (e.g., simple phobias) than for conditions more unambiguously understood as severe (e.g., schizophrenia).

Although the stigma of mental illness is pervasive, it is likely to be underreported. First, there is a general social desirability bias in reports of prejudice, a bias that affects conclusions regarding the mean, trends, and determinants of stigma. Antistigma campaigns have become more common and, if not always effective, they at least make it clear that rejecting mentally ill persons is wrong. Out of fear of appearing prejudiced, survey respondents may report more positive attitudes than they actually hold. By the same token, in the presence of a social desirability bias, reports of social distancing will be conflated with the willingness to report social distancing, and with little understanding of the latter, it will be difficult to discern evidence regarding factors that affect the former (Link et al., 2004). In this vein, the effects of education on beliefs about mental illness are, as I will highlight and specify shortly, complex. Second, there is evidence that personal experience with mental illness leads to more negative reports of others’ beliefs. Whereas most Americans (57%) believe that persons with mental illness are treated with care and sympathy, fewer persons who have experienced psychiatric symptoms themselves believe the same (25%) (Centers for Disease Control and Prevention, 2010). Among those with a psychiatric disorder, 18% report explicit discrimination and 41% report some embarrassment, percentages that exceed those found among those experiencing physical illness (Alonso et al., 2008). Third, studies of public beliefs miss at least one important feature of stigma altogether, namely structural discrimination, or discrimination inhering to institutional policies and practices. Understanding structural discrimination is, by definition, outside the purview of most studies of public beliefs and necessitates a different research design (Link et al., 2004). Nevertheless, structural discrimination remains an important dimension of stigma and will likely become more important as explicit prejudice starts to fade (Corrigan, Markowitz, & Watson, 2004).

Given the potential biases of explicit attitudes, some studies have investigated unconscious attitudes toward mental illness. Implicit attitudes are preconscious attitudes that affect perception in a rapid and automatic fashion (Greenwald & Banaji, 1995). They are assessed using the implicit association test (IAT), which measures the reaction time between paired objects and concepts. In this test a shorter reaction time indicates a closer automatic coupling of a stimulus (e.g., schizophrenia) with a concept (e.g., dangerous). The IAT has been used to study a variety of topics and has recently been applied to mental illness. Teachman, Wilson, and Komarovskaya (2006) show both explicit and implicit negative attitudes regarding the helplessness of persons with mental illness, but also show that attitudes regarding the blameworthiness of mental illness are largely implicit—few want to admit openly that they believe those with mental illness deserve their fate. Although attitudes regarding the blameworthiness of mental illness are implicit, they are not beyond the reach of intervention. Peris, Teachman, and Nosek (2008) show that negative implicit attitudes are less common among those with mental health training. Similarly, Lincoln et al. (2008) find that antistigma interventions can improve other implicit attitudes, as well as some explicit ones.

Regardless of how the stigma of mental illness is measured, it is severe and common. Indeed, relative to other sources of stigma, the stigma of mental illness may be unusually strong. When asked to rank a variety of stigmatized conditions, mental illness is at or near the bottom, along with homelessness (Hinshaw, 2007; Tringo, 1970). In addition, slurs against persons with mental illness are common in everyday parlance (e.g., “crazy”) and greeted with more social acceptability than other slurs, perhaps because they are interpreted as merely descriptive rather than demeaning (Hinshaw & Cicchetti, 2000). Although a strong stigma against persons with mental illness is perhaps not unexpected, its sources are still complex and some of the most common explanations are only partially correct. For one, it is not exactly clear what the deviance implicit in mental illness is. The stigma of mental illness partly reflects how its symptoms deviate from social and behavioral norms. Scheff (1966) famously described the symptoms of mental illness in terms of "residual" deviance, or deviance not otherwise codified. Yet, psychiatric symptoms that deviate more from social norms do not always translate into more stigma. For example, norms of masculinity and toughness, which are otherwise strong, do not translate into greater stigma directed toward depressed men than depressed women (Schnittker, 2000). At the same time, the stigma of mental illness may reflect ignorance to some degree, which motivates the educational efforts of the mental health literacy movement. Yet, the stigma of mental illness has not been eliminated by growing scientific literacy or more accurate knowledge. Historically, at least, religious interpretations of mental illness (e.g., mental illness is the product of evil spirits) have often encouraged more humane and hopeful treatments, while more naturalistic interpretations have led to repression and cynicism (Hinshaw, 2007). And Foucault (1965) famously documented the rise of difference and castigation in parallel with the rise of modern approaches to mental illness. Still another interpretation of the stigma of mental illness is that derogating people with mental illness benefits the self of the perpetrator in some way, increasing self-esteem or reassuring the individual of his/her own normality (Fein & Spencer, 1997). Yet, this approach is limited as well: denigration of people with mental illness is not limited to those with low self-esteem (Vohs & Heatherton, 2001) or to those of low status (Pescosolido et al., 2000). Recent research has explored trends in beliefs about mental illness with the hope of identifying ways of reducing stigma, but it has largely uncovered even more evidence for stigma's persistence.

Trends in Beliefs, Stigma, and Prejudice

Beliefs about mental illness have changed in the last 20 years, but not in the way many anticipated. On the surface, the evidence regarding stigma would seem to be mixed, with some studies claiming a decline and others claiming an increase, but this superficial inconsistency mostly reflects the diverse outcomes being grouped under the common rubric of stigma. "Stigma" has perhaps declined when thought of as personal embarrassment regarding psychiatric treatment (Mojtabai, 2007), or in terms of whether the public thinks there is a stigma to mental illness (Angermeyer & Matschinger, 2005), or in terms of enthusiasm for a medical approach to behavioral disorders or general mental health literacy (Jorm et al., 2006), but perceptions of dangerousness have hardly changed and, in some ways, gotten worse (Pescosolido et al., 2010; Phelan et al., 2000; Schnittker, 2008). When considering stigma as the totality of negative beliefs, there is no strong or obvious evidence for a decline.

The starting point for most research on trends is Shirley Star's (1955) research from the 1950s, in which respondents were asked in an open-ended fashion to describe "mental or nervous" illness. American conceptions at the time were relatively restrictive, with most describing the symptoms of psychosis or depression/anxiety and few describing personality disorders or substance abuse (see also Nunnally, 1961; Phillips, 1963; Rabkin, 1972). In 1996, researchers asked Star's question again and found more capacious conceptions, as well as more references to violence (Pescosolido, Monahan, Link, Stueve, & Kikuzawa, 1999; Phelan et al., 2000). When describing mental illness in 1996, fewer persons described psychosis and depression/anxiety, offset by more persons describing a variety of other disorders, including substance abuse, cognitive impairment, and assorted forms of social deviance. At the same time, the public was more likely to describe the violent features of mental illness in some fashion. For example, the proportion describing violent psychosis nearly doubled (Phelan et al., 2000). If stigma is defined as the strength of the association between mental illness and violence in the mind of the public, the evidence would seem to suggest stigma has increased.

The advent of the twenty-first century brought some additional changes, but beliefs about dangerousness persist. Some of the most powerful changes have been with respect to beliefs about treatment in particular. Mojtabai (2007) finds that between 1990 and 2003, Americans became more comfortable talking with a professional about personal problems: in 1990–1992, 27% reported feeling "very comfortable" talking with a professional about personal problems, compared with 32% in 2001–2003. When asked if they would be embarrassed if others found out about their treatment, the fraction reporting "not at all" increased from 34% to 40%. These reports mirror actual behaviors: between 1990 and 2003, the percentage of Americans aged 18–54 receiving treatment of some kind increased from 12% to 20% (Kessler et al., 2005).

Also consistent with these patterns in beliefs and behavior has been the growing enthusiasm for a biomedical approach to the causes of mental illness. The 1996 and 2006 GSS, again, provides some of the best and most direct evidence on recent trends. In 2006, two-thirds of the public attributed major depression to neurobiological causes, compared with 54% in 1996, an increase driven primarily by growing endorsement of chemical imbalances and genes as explanations for mental illness (Pescosolido et al., 2010). This increase was not limited to depression in particular and, thus, was not simply a reflection of a growing acceptance of sadness as a disease. A comparable increase was found for schizophrenia (86% vs. 76%), albeit from a higher baseline. Broadly growing enthusiasm for a biomedical approach did not, however, translate into less stigma. If anything, social distance toward those with schizophrenia increased, while social distance toward those with depression decreased slightly.

Patterns of this sort reflect the complex meanings of biomedical arguments in general and genetic arguments in particular. Genetic arguments reflect mental health literacy to some degree, especially given the enthusiasm surrounding the successful mapping of the human genome, but they have more complex connotations, with potentially offsetting effects. In an examination of the cognitive dimensions of public beliefs, Schnittker (2008) finds that genetic attributions have contingent effects on stigma: for disorders with weak associations with dangerousness (e.g., depression), genetic attributions promote tolerance, whereas for disorders with strong associations with dangerousness (e.g., schizophrenia), genetic attributions increase fears and suspicion. This contingency reflects the different sources of stigma behind these disorders: for depression, genetic arguments reduce blameworthiness, a key source of stigma, but for schizophrenia, genetic arguments increase fear by making dangerousness appear more enduring. In the same vein, Walker and Read (2002) find that in an experimental setting, adding information about medical causes can increase the extent to which symptoms are perceived as dangerous (see also Read, Haslam, Sayce, & Davies, 2006). As these studies illustrate, understanding the meaning of genetic arguments requires appreciating the full set of beliefs surrounding each illness and examining disorders on a case-by-case basis.

Genetic arguments have other implications that might increase stigma as well. Most survey research explores beliefs about genetic causes in relation to the person experiencing the disorder, but genetic arguments also imply risk to biological family members and descendants. Along these lines, Phelan (2005) presents evidence from a vignette study wherein the presentation of information about genetic causes was experimentally manipulated. The effects of additional information on genetic causes were asymmetric between targets of stigma: whereas genetic attributions did not change social distancing against someone with mental illness, they increased social distancing against that person's sibling. This experimental evidence is consistent with the personal experiences of those with mental illness: observational studies find that genetic attributions alleviate some of the stigma felt by those with a disorder, but also put unaffected family members at risk of "courtesy" stigma (Laegsgaard, Stamp, Hall, & Mors, 2010).

In light of the persistence of stigma and the complex associations of biomedical arguments, some have called for a new approach to stigma reduction. In particular, some have argued for a rolling-back of the emphasis on biomedical causes in favor of a more direct approach wherein the public is explicitly educated about the problem of discrimination against those with mental illness (Read et al., 2006). This strategy has much to recommend it, but whatever their focus, programs to reduce stigma must ultimately contend with the many forces that influence trends, especially those that continue to support the view that persons with mental illness are dangerous.

Some Influences on Trends

Research generally has done more to document the direction of trends than it has to understand the mechanisms behind these trends, but aspects of recent trends point to the influence of some particular factors. First, trends in beliefs have been pervasive across social groups, suggesting a broadcast-type mechanism. Support for treatment, for example, has increased both among those with a disorder and those without, meaning the rise in the use of services was not driven by a rise in the need for services (Kessler et al., 2005; Mojtabai, 2007). Similarly, endorsement of biomedical causes has grown across sociodemographic groups and, thus, cannot be attributed to changes in the demographic composition of the population (Pescosolido et al., 2010). Second, much of the change has been limited to a narrow class of beliefs, particularly beliefs about the effectiveness of treatment and biological causes. Other beliefs have either not changed as much or are presumed to have changed only as a result of changes in beliefs about causes. Given these patterns, speculation has focused on direct-to-consumer advertising (DTCA) of psychiatric medications, which has increased greatly over time (Rosenthal, Berndt, Donohue, Frank, & Epstein, 2002).

There is both observational and experimental evidence on the effects of DTCA, much of it focused on physician prescribing patterns. Exploiting the temporal variation in DTCA spending, Donohue and Berndt (2004) show that patients diagnosed with depression during periods of high DTCA spending had 32% greater odds of initiating medication use relative to those diagnosed during periods of low spending. This difference could reflect the behavior of either physicians or patients, but there is good evidence that patient requests have effects on prescribing patterns. In a randomized control trial using prepared actors posing as patients, Kravitz et al. (2005) explore the effects of requests for direct-to-consumer advertised antidepressants and find complex and countervailing effects. They find improvements in the quality of services for depression: 90% of patients making a request for specific brand-name antidepressants receive minimally adequate acceptable care, compared with 56% making no such request. Yet, patients' specific requests are not always honored: only 53% of patients requesting a specific medication receive a prescription for an antidepressant and only 27% receive the specific medication they request. In addition, medication requests increase condition-inappropriate prescribing: requests increase the likelihood of prescribing antidepressants for those presenting with adjustment disorders, an indication for which there is no data.

For sociologists, a key question is whether DTCA is leading to more medicalization (see Chap. 4), hastened either by growing consumer demand for inappropriate services or by physician overprescribing. From these studies, the net effect of DTCA on medicalization is uncertain: DTCA may be beneficial when a condition is serious and the treatment effective, providing a safeguard against undertreatment, but it may be harmful when the condition is insignificant and the treatment ineffective—encouraging unnecessary treatment. In either case, the physician remains a crucial intermediary, both benefiting when a patient presents information that helps the physician recognize a disorder and being able to prevent treatment when the physician deems it unnecessary. In the case of depression, a powerful barrier to high-quality treatment is simply the failure of physicians to recognize depression in their patients (Wells, Sturm, Sherbourne, & Meredith, 1996), so the benefits of DTCA are not inconsiderable and the risks are in principle manageable. From the patient standpoint, however, DTCA more clearly pushes toward medicalization. Studies show that DTCA often focuses on conditions that may not be recognized by consumers rather than the conditions virtually everyone recognizes as treatable (Bell, Kravitz, & Wilkes, 2000).

Indeed, this recognition factor has become a crucial feature of pharmaceutical advertisements. Along these lines, Arney and Rafalovich (2007) explore the logic of antidepressant advertisements, providing insights into advertisements' power to persuade. According to Arney and Rafalovich's interpretation, advertisements invite the viewer to explore personal experiences with distress as part of a larger narrative, arguing that such experiences are common and that a specific treatment is effective, thereby encouraging social acceptability for both the diagnosis and treatment. Advertisements proceed slowly and by implication: they begin by stating a particular premise using ordinary language and first or second person ("you" experience these emotions), followed by a general premise using more specific medical parlance (these emotions are symptomatic of a disorder), from which the viewer is meant to infer that the symptoms they experience are serious and that they too have the disorder.

Advertisements work on another level as well. Although the public believes pharmaceutical advertisements improve their understanding of disease and treatment (Murray, Lo, Pollack, Donelan, & Lee, 2004), the value of the information they impart is unclear. Content analyses of television advertisements for prescription drugs reveal they rarely describe a condition's cause, risk factors, or prevalence (Frosch, Krueger, Hornik, Cronholm, & Barg, 2007). According to one study, no advertisements mention lifestyle changes as an alternative to medication (Frosch et al., 2007) and few acknowledge variation in product effectiveness (Kaphingst, DeJong, Rudd, & Daltroy, 2004). Moreover, the commercial dimensions of advertisements are, if anything, increasing: analyses of print advertisements, for example, find that the educational content of advertisements declined between 1992 and 2002, while the promotional content increased (Curry, Jarosch, & Pacholok, 2005). Advertisements impart some information, to be sure, but they are usually directed toward a specific behavior. The spread of DTCA could eventually have even more subtle implications, regarding, for example, idioms of distress expressed by the public. Horwitz (2010) argues that the emphasis placed on any one psychiatric disorder depends on the relative amount of attention other disorders receive and, further, that the balance between disorders may shift based on commercial interests. Although the signature disorder of recent memory has been depression, the emphasis may shift to anxiety in the near future, affecting the terms individuals use to express their distress and the symptoms they present to clinicians. Hypotheses of this sort, while subtle, lend themselves to the same sort of investigations discussed earlier with respect to studies of the meaning of a "nervous breakdown" or what the public describes as "mental illness."

The Persistence of Perceived Dangerousness

Of course, not all media is commercial in nature. A long-standing research tradition explores how the media perpetuates the image of people with mental illness as dangerous (Wahl, 1992). References to mental illness are common on television, with one study reporting that nearly a third of prime-time network programs contain at least one character with mental illness (Diefenbach, 1997). These portrayals are rarely positive. Most newspaper stories about former psychiatric patients emphasize violence (Shain & Phillips, 1991), and evidence suggests that identifying perpetrators of violence as mentally ill increases prejudice (Angermeyer & Matschinger, 1995). Even when not portrayed as violent, those with mental illness are rarely portrayed as successful. Signorielle (1989), for example, highlights how the media portrays people with mental illness as less likely to be employed outside the home and, when they are, portrays them as failures. Certainly, some of these depictions reflect the real disadvantages of those who suffer from mental illness—those with mental illness do, in fact, have higher levels of unemployment—but negative depictions extend to those who might provide assistance as well. Gabbard and Gabbard (1992) review portrayals of psychiatrists in popular cinema, revealing a relatively limited set of negative types, from the "eccentric buffoon" to the "repressive agent of society."

Beyond these negative portrayals of patients and providers, the challenge of stigma reduction is underscored by experimental evidence on stigma's cognitive dimensions. In a study of the potential effects of corrective information, Wahl and Lefkowits (1989) find that a trailer explaining the nonviolent nature of mental illness is insufficient to mitigate the negative effects of a subsequent film depicting a homicidal criminal with mental illness. In general, well-learned stereotypes are difficult to disconfirm, even in the face of contrary evidence, as individuals are likely to recall and construe information in a stereotype-consistent fashion (Fyock & Stangor, 1994). This is no less the case for mental illness: even a semester long course on mental illness has only a marginal effect on attitudes and fear (Holmes, Corrigan, Williams, Canar, & Kubiak, 1999). Although some studies are able to experimentally induce lower levels of perceived violence for schizophrenia, they do so only by anchoring information about violence among those with schizophrenia against information about violence among those with substance abuse disorders, meaning study participants might have simply shifted their negative attitudes from one disorder to another while retaining a negative impression of mental illness overall (Penn, Kommana, Mansfield, & Link, 1999).

Perhaps the most effective means of alleviating stigma is personal contact, a result driven by the normalizing effects of meeting a member of a putative out-group. In at least one study, subjects who had contact with someone with mental illness experienced greater changes in attitudes than subjects exposed to simple educational interventions (Corrigan et al., 2002). Demonstrations of this sort are promising, but the challenges of scaling-up are formidable. Many naturally occurring experiences with mental illness are unlikely to promote tolerance in and of themselves and, given the ubiquity of negative portrayals in the media, positive personal encounters can easily be interpreted as atypical (e.g., “he’s not like other mentally ill persons”) (Corrigan & Penn, 1999).

The stigma of mental illness is difficult to overcome in part because negative beliefs about dangerousness contain a grain of truth: even advocates acknowledge that those with certain mental illnesses are, in fact, more dangerous than the average person (Steadman, 1981). Link, Monahan, Stueve, and Cullen (1999a) find that over a quarter of those with a psychotic disorder were involved in fights, relative to 8% of those with no disorder. Likewise, Swanson (1994) finds rates of violence about five times higher among those with psychiatric disorders relative to those without. Although the media may overstate the degree of dangerousness—often by a sensational degree (Wahl, 1995)—those with severe mental illness are more likely to commit violent offenses and the public relies heavily on assessments of dangerousness to guide their reactions. For example, Corrigan and colleagues (2002) report a near-perfect correlation between perceived dangerousness and fear.

Still, it is important to appreciate the context surrounding these elevated rates, something the public may have a difficult time doing when faced with the decision of whether or not to avoid someone. In this context, social distance may simply reflect the public being unwilling to put themselves at risk, but, if so, the association of mental illness with dangerousness is still a distortion of the true risk and mental illness itself is perhaps not the best indicator upon which to base a decision (see Corrigan & Cooper, 2004; Link, Monahan, et al., 1999a): people with mental illness are more dangerous only during certain phases of the disorder; the added risk posed by mental illness is no greater than that posed by, for example, a man relative to a woman or a young person relative to an older person; and severe mental illness is much too rare to account for even a small fraction of the total violence in the USA. Unfortunately, these sorts of comparisons are difficult to convey to the public. It is simply much easier to persuade the public that there is a biological or genetic component to mental illness than it is to demonstrate that the average mentally ill person poses no real risk to their safety or that personal risk assessments might best be directed toward other characteristics.

Conclusions

It is perhaps tempting to infer that Americans’ beliefs about mental illness are an inconsistent mix of beliefs, facts, and prejudices, and that any trends, such as they are, are not moving in an obviously positive or even coherent direction. The public may increasingly endorse a biomedical model, for example, but they continue to fear those with mental illness, perhaps more than they have in the past. The public may recognize that those with mental illness are not responsible for their condition, but they continue to use derogatory terms for those they identify as ill. The public may support mental health treatment, but many people who would benefit from treatment still do not receive it and many who do receive treatment have no obvious need for it.

Appreciating this complexity requires a better understanding of the meaning of public beliefs, and many of the most common frameworks for understanding beliefs are probably inadequate to the task. Progress in the field will be improved by interpreting the public's beliefs on their own terms. For example, there has been a great deal of concern over mental health "literacy" and, in this light, there has been some enthusiasm over the public's appreciation of a biomedical approach. Many would like to see public beliefs progress in this vein until they approximate the ideal of mental illness as a "disease like any other." But it has also become clear that the public's appreciation of the facts of mental illness has not led to an appreciable decline in the stigma of mental illness. Even for the most controversial aspects of mental illness, the public appears measured and receptive, suggesting literacy is not the only issue: the public recognizes the importance of genetic influences, for example, but does not endorse genetic determinism. Furthermore, the public's lingering skepticism of certain treatments is not unreasonable or even inconsistent with the science of mental illness: the public sees value in psychiatric medications, for example, but it has concerns about their over-application and, to a more limited degree, their side effects. Although some advocates find it "somewhat distressing" that nearly half of the public report that they would stop taking psychiatric medications when their symptoms abate (Martin et al., 2005, p. 7), this is not inconsistent with how the public consumes medications for other physical health problems. Furthermore, defining mental illness as an "illness" may encourage formal treatment, but this recognition has other effects that are countervailing to improvement: persons with severe mental illness who deny that their problem is a mental illness, for example, report a higher quality of life (Mechanic, McAlpine, Rosenfield, & Davis, 1994). In short, public beliefs may be more complex than scholars are able to appreciate using some current frameworks.

Perhaps recognizing these inadequacies, Luchins (2004) argues for a transformation of public conceptions of *health*, wherein advocates should emphasize the social and psychological dimensions of physical health rather than move mental health closer to a physical health standard. There is much to recommend this suggestion and, if it is perhaps too ambitious to be practical, it has at least one important implication that researchers should take to heart: aligning beliefs about mental health with beliefs about physical health will not, of necessity, reduce stigma or improve treatment. There is already evidence that the public sees mental health in much the same way as it sees physical health, and commercial interests will likely propel this alignment further, but there is less evidence that stigma has declined, and many social and psychological forces are conspiring to maintain it. What makes mental illness unique is a lingering concern about dangerousness, and efforts to educate the public on this score have proven more difficult than efforts to encourage a disease model. Sociology is well-positioned to advance knowledge on this front, as in addition to a long-standing literature on public beliefs about mental illness, from which this chapter has drawn, the discipline has a well-developed literature on the social dimensions of dangerousness among those with mental illness.

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Chapter 6
The Sociological Study of Mental Illness: A Critique and Synthesis of Four Perspectives

Allan V. Horwitz

Abbreviations

ADHD	Attention deficit hyperactivity disorder
DSM	Diagnostic and Statistical Manual of Mental Disorders
HD	Harmful dysfunction
WHO	World Health Organization

Laypeople as well as mental health professionals typically assume that the nature, causes, and cures of mental illness are aspects of distressed individuals. Mental illness, as a cultural category, is rooted in personalities or brains. These individualistic conceptions of mental illness are entrenched in both common sense and the mental health professions that define, study, and treat mental illness. Sociologists who study mental health and illness thus confront deeply rooted and socially legitimated a-sociological models.

This chapter outlines four sociological styles of thinking about mental disorders. Each reacts in a distinct way to the dominant individualistic model of mental illness. The most common style accepts the prevailing definitions of mental illness and searches for the social causes of these conditions. A second style, more common in anthropology and history than in sociology, examines how individual symptoms are cultural products of particular sociohistorical contexts. Both of these approaches address the social causes of symptoms but make different assumptions about whether psychological conditions emerge independently of cultural contexts or are integral aspects of these contexts. Two other sociological orientations do not address how symptoms arise in individuals but instead focus on how social factors affect responses to mental disorder. One of these approaches uses traditional measures of mental illness as a base and studies the variation in the reaction to these symptoms. The other examines how social definitions of mental disorders are constructed and employed.

A.V. Horwitz (✉)
Department of Sociology, Institute for Health, Health Care Policy, and Aging Research,
Rutgers University, 112 Paterson St, New Brunswick, NJ 08901, USA
e-mail: ahorwitz@sas.rutgers.edu

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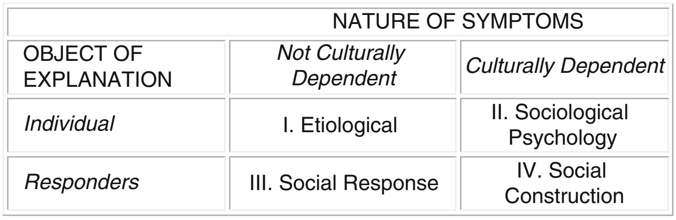

	NATURE OF SYMPTOMS	
OBJECT OF EXPLANATION	*Not Culturally Dependent*	*Culturally Dependent*
Individual	I. Etiological	II. Sociological Psychology
Responders	III. Social Response	IV. Social Construction

Fig. 6.1 Sociological explanations of mental disorder

Figure 6.1 uses two dimensions to present an oversimplified classification of these sociological explanations. The first is whether studies seek to explain, on the one hand, how symptoms emerge in individuals or, on the other hand, the social response to symptomatic persons. Both the etiological (I) and sociological psychology (II) approaches study how particular individuals develop mental disorders. In contrast, the social response (III) and social constructionist (IV) schools explain the ways in which social groups define and respond to individuals who display symptoms. The second basis of classification is whether mental symptoms are viewed as properties of individuals or as cultural products. Etiological (I) and social response (III) studies either see symptoms as emerging independently of culture or take the nature of symptoms for granted, respectively. In contrast, the major goal of both sociological psychology (II) and social constructionist (IV) explanations is to understand how culture produces expressions and definitions of psychological conditions.

The remainder of this chapter discusses the nature, strengths, and weaknesses of these four styles of sociological explanation of mental disorder. Although these four approaches encompass the dominant sociological modes of studying mental disorder, this classification does not capture the great heterogeneity within each style or the often fuzzy boundaries between them. There is no single sociological style of explaining mental illness; instead, a variety of explanations illuminate a phenomenon that is not usually considered to be within the social domain at all.

Etiological Studies

The dominant tradition in the sociological study of mental health examines how social factors influence variation in rates of mental disorder and distress (e.g., Aneshensel, 1992; Pearlin, 1989; Thoits, 2010). The etiological style explains the same outcome as other mental health disciplines—symptomatology in individuals. These studies use standardized measures that can be applied across different cultural contexts to assess psychological conditions. In this sense, the etiological study of mental illness is comparable to the study of physical illness. Both mental and physical illnesses are clusters of symptoms whose nature is independent of the cultural milieu in which they arise. This assumption is implicit, rather than explicit; indeed, many investigators who study etiology might reject it. Nevertheless, their research uses measures that do not vary across cultural contexts and do not take into account the historical and social aspects of symptoms.

The distinctly sociological aspect of etiological research does not lie in its conception of mental disorder but in its focus on how mental symptoms arise from individuals' positions in the social structure (Mirowsky & Ross, 2003). Durkheim's *Suicide* (1897/1951), which studied variation in suicide rates among different groups, was the first systematic sociological study of this type. The initial American study was Faris and Dunham's (1939) research on disparities across Chicago's neighborhoods in treated rates of schizophrenia and manic-depression. Studies in this tradition do not search for the reasons particular individuals develop mental illnesses but instead seek to explain differing rates of mental disorder across different social locations (e.g., cities, regions, nations), groups (e.g., social class, gender, age), or roles (e.g., parent, spouse, employee), as exemplified by Chaps. 9, 10, 11, 12, 13, and 14. To ensure comparability across settings they must use standardized and reliable measures that vary minimally from application to application. Idiosyncratic aspects of personal experience or social context are—in theory, if not always in practice—controlled for and, ideally, eliminated.

One strand of etiological research focuses on the study of variations in rates of particular diagnostic categories such as major depression, anxiety disorder, substance abuse/dependence, or personality disorder in community populations (e.g., Kessler, Chiu, Demler, Merikangas, & Walters, 2005). Another strand uses global symptoms of distress rather than particular psychiatric disorders as the object of explanation. This tradition assumes that mental disorders are not distinct clusters of symptoms but instead that mental health and illness vary continuously from mild to severe conditions (e.g., Mirowsky & Ross, 1989; Radloff, 1977).

Etiological studies have made major contributions to understanding the various ways that the social environment affects mental health. One way is through stressful life events that people encounter such as the death of an intimate, marital separation or divorce, or losing a job (Holmes & Rahe, 1967; Thoits, 2010). Extremely severe stressors such as natural disasters, wartime combat, or violent crime victimization are especially powerful sources of adverse mental health outcomes (Dohrenwend, 2000). Not only short-term stressors but also long-lasting sources of strain negatively influence mental health. Chronic stressors, which include long-term poverty, unemployment, marital strain, living in crime-ridden and deteriorating neighborhoods, and single parenthood, have strong relationships with elevated levels of distress (Ross, 2000; Turner, Wheaton, & Lloyd, 1995; Wheaton & Montazer, 2010).

Structural disparities in wealth, power, knowledge, and influence that produce inequalities among different social groups are also a fundamental cause of psychological distress (Link & Phelan, 1995). One of the strongest and most consistent relationships in the sociology of mental health is that wealthier, more powerful, and higher status people have better mental health and less mental illness than those with fewer resources. Poverty, which typically involves not just economic deprivation but also physically harmful environments, unhealthy lifestyles, and unstable interpersonal relationships, has an especially potent relationship with poor mental health (Eaton, Muntaner, & Sapag, 2010; McLeod & Nonnemaker, 1999). When these socioeconomic disparities arise early in life, they often have persistent effects that are associated with poor mental health in later stages of the life course (George, 2007). Racial differences in mental health seem to be an exception to the general rule that higher social status is related to good mental health. Paradoxically, although blacks are generally of lower socioeconomic status than whites, they do not report higher rates of mental disorder or distress (Williams, Costa, & Leavell, 2010).

Aspects of social roles such as role inequality, conflict, overload, and strain also have strong relationships to mental health (Pearlin, 1989). In particular, social roles marked by lower power also entail more distress. For example, because married women are more likely than their spouses to occupy relatively powerless roles as well as to suffer more role overload and strain in most groups, they are also more likely to report more psychological distress (Gove & Tudor, 1973; Rosenfield & Smith, 2010). When, however, men and women have relatively egalitarian marriages or share comparable roles, as among single people, gender differences in distress are minimal (Mirowsky & Ross, 2003). At the other extreme, when men hold subordinate roles to women, rates of distress among men can exceed those of women (Rosenfield, 1992).

Social factors not only exacerbate mental health problems but also can protect people from developing mental disorders and distress by providing social support during stressful periods and integration into the broader society (Turner & Brown, 2010). For example, a large literature indicates that married people have less distress than unmarried persons (e.g., Durkheim 1897/1951; Mirowsky & Ross, 2003). Marriage leads to better mental health both through spouses' supportive ties with each other and through integrating them into community institutions. Likewise, people who have more frequent contacts with family, friends, and neighbors as well as those involved with church, civic, and recreational groups report less distress (Lin, Ye, & Ensel, 1999; Thoits & Hewitt, 2001). Community characteristics also are associated with social integration and, thus, with mental health. After taking into account individual characteristics, residents of communities marked by strong cohesion, two-parent families, low crime rates, and cleanliness have better mental health than those who live in areas that lack these qualities (Aneshensel & Sucoff, 1996; Ross, 2000).

The great strength of etiological research has been to show how properties of social environments and systems that cannot be reduced to personalities or brains are associated with the development of distress and disorder. These studies have had powerful influences on recent genetic studies, which now assume that genes are less likely to have independent direct effects than to interact with qualities of the social environment to produce mental illness (e.g., Caspi et al., 2003). However, the particular ways in which genes and aspects of stressors act together to produce mental illness have yet to be determined (e.g., Risch et al., 2009).

Several weaknesses also are apparent in etiological models. One is their failure to establish valid standards of mental illness (Wakefield, 1992). The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; American Psychiatric Association, 2000, pp. xxi–xxii) defines mental disorders as patterns of thought and behavior associated with distress and functional impairment that result from dysfunction in the individual rather than from expectable responses to events or from deviant behavior. Yet etiological studies make no attempt to separate mental disorders that are individual dysfunctions from conditions that emerge as reactions to stressors. Nor do they justify why some diagnoses such as alcohol and drug abuse or personality disorders indicate individual dysfunctions rather than patterns of deviant behavior. Etiological studies show social variation in symptoms but not why these symptoms indicate mental illness.

A related problem of etiological studies is their tendency to overestimate rates of mental disorder in community populations (Wakefield & Schmitz, 2010). In contrast to clinical studies, which deal with people who have sought professional help because they have self-defined problematic conditions, studies of untreated populations cannot assume that symptoms represent mental illness rather than understandable, ordinary, and transitory reactions to life experiences. Because they do not separate symptoms that are individual dysfunctions from those that are expectable responses to stressors or deviant behaviors, etiological studies are prone to making errors of considering non-disordered people as having disorders. The lack of valid criteria of mental illness may account for findings that a quarter of the population has a mental illness in any given year and more than half over their lifetimes (e.g., Kessler et al., 2005). Until etiological studies develop and use a valid concept of mental disorder, they likely will continue to provide inflated estimates of disorder.

Etiological studies also face the problem of whether reports of the same symptoms mean the same thing among different types of people. If members of different groups display disorders in unlike ways, comparing rates of the same symptoms will not provide good estimates of group differences in overall mental illness. For example, etiological studies show that women report more depression than men while men are more likely to report problematic use of alcohol. Comparisons of only depression or only alcohol problems between women and men will inaccurately represent gender differences in reactions to stressors (Aneshensel, Rutter, & Lachenbruch, 1991). Different rates of the same disorder among groups could represent many things, including different styles of expressing distress, of exposure to stress, or of coping with stress. This problem points to the need for developing valid measures that are sensitive to possible variations in the way diverse groups develop and express distress.

Etiological studies have made many contributions in showing the social variation in the emergence of mental disorders. A direct confrontation with some fundamental conceptual issues that such studies currently ignore would maximize their ability to illuminate important aspects of the sociology of mental health and illness.

Sociological Psychology Studies

The etiological model has dominated studies in the sociology of mental disorder. As a result, the field has viewed mental illness, at least implicitly, as consisting of culture-free symptoms measurable through standardized scales. In etiological approaches, social and cultural factors affect rates of psychiatric disorders but not the basic nature of these disorders themselves. The sociological psychology model makes fundamentally different assumptions. Although rarely used in recent sociological studies, this model has flourished in anthropological and historical studies of psychiatric conditions. Its basic principle is that cultural contexts fundamentally shape the types of mental symptoms that individuals experience and display. These symptoms develop from culturally specific patterns of socialization, norms of appropriate emotional display, and general cultural schemas, rather than from culture-free disease processes.

Sociological psychology views mental disorders as products of particular times and places. Major aspects of central psychiatric illnesses found in contemporary US society, such as attention deficit hyperactivity disorder (ADHD), autism, or personality disorder, could not arise in different sociohistorical eras (e.g., Hacking, 1995). Conversely, disorders such as hysteria that develop in fundamentally different cultural contexts could not emerge here. Thus, the etiological and sociological psychology models differ not only in their basic assumptions about the nature of mental illness, but also in their fundamental goals: The first explains social variation in universal symptoms of mental disorder; the second explains the social and cultural origins of the kinds of mental disorders that emerge in particular contexts.

There are several predecessors of current studies of sociological psychology. One is the neo-Freudian movement led by Erich Fromm (1941), Karen Horney (1937), and Henry Stack Sullivan (1953). The neo-Freudians criticized traditional psychiatric thought, psychoanalysis in particular, for ignoring the social shaping of psychiatric symptoms. For them, individual psychology was social psychology: social and cultural institutions determine character structures, symptoms, and neuroses. Fromm (1941, p. 231) captures this aspect of neo-Freudian thought: “The essential nucleus of the character structure of most members of a group… has developed as the result of the basic experiences and mode of life common to that group.” For example, from this perspective, the oedipal complex stems from the types of family relationships found in patriarchal societies and the anal character structure emerges from the values of rationality, retention, and order that capitalist societies emphasize. Likewise, the contradictions of capitalist society may be responsible for many of the typical neurotic conflicts of contemporary women, such as masochistic character traits (Horney, 1937). As social structures and cultural values change, modal personalities and psychopathological styles that typify an era will also change.

The culture and personality school in anthropology, which emerged concurrently with the neo-Freudian movement, is another precursor of sociological psychology (Harris, 1968). This tradition emphasized how socialization, customs, and social organization—rather than universal psychic mechanisms—shape normal and abnormal thoughts, feelings, and behaviors (Dubreuil & Wittkower, 1976). Anthropologists viewed Freudian and other Western psychiatric theories as culture-bound manifestations of Western thought that were not inherently superior to the assumptions other cultures make about mental illness. In their view, the nature and symptoms of personality problems in non-Western societies were unlike those emphasized by Western psychiatry (Kardiner, 1939). A considerable amount of cross-cultural research in this vein associated culturally specific institutions of child rearing with the development of particular personality types (Whiting & Child, 1953). This research crossed over to sociology in such major works of the 1950s as Riesman, Glazer, and Denney’s *The Lonely Crowd* (1951) and Whyte’s *The Organization Man* (1956), which located major forms of character structure in dominant forms of social organization.

Although it is no longer fashionable, the culture and personality school is an intellectual precursor of an active “new” anthropology of mental illness. Contemporary anthropological studies assume that culture shapes mental illnesses by providing the symbolic expressions of meaning that organize all thought and action (Kleinman, 1988). This approach emphasizes how the most fundamental aspects of selves, personal experiences, and symptoms of disorder are culturally produced and determined as ongoing accomplishments of everyday experiences rather than childhood products of socialization (Littlewood, 1990). For example, taken-for-granted notions in Western psychiatry that experience is rooted in separate, individual selves do not hold in cultures that experience and interpret symptoms as physiological or as disturbances in interpersonal relationships (Hopper, 1991).

Cultural forces shape not only relatively superficial aspects of psychiatric symptoms, such as the content of delusions, but also define essential aspects of mental illnesses. For example, the Chinese use physiological expressions to display the same underlying distress that Westerners manifest through psychogenic idioms (Kleinman, 1986). It might be technically possible to translate diagnostic categories and symptom scales of depression into other languages but the data obtained from such cross-cultural comparisons of Western psychiatric entities may be no more valid than epidemiological surveys of “soul loss” would be among middle class North Americans (Hopper, 1992). The same diagnosis of “depression” cannot capture the radical difference between symptoms experienced as guilt-ridden despair and those processed as lower back pain. Cultural differences in the experience and manifestation of symptoms are so profound that the two forms of expression cannot be encompassed within the same diagnostic category. From this perspective, a valid understanding of how individuals experience psychiatric symptoms can only arise within the framework of the relevant cultural context (e.g., Guarnaccia, 1993).

Studies of the cultural production of mental disorders have flourished among historians as well as anthropologists. Writing with the advantage of hindsight, historians can document how disorders that seemed natural and universal to observers during a prior era retrospectively become anachronistic and culture-bound entities. Edward Shorter (1992, 1994) has developed a general model of psychiatric disorder in historical context. He assumes that universal biological and psychological factors present in all cultures produce very general predispositions to express psychosomatic, depressive, and anxious symptoms. But the mind must interpret the distressing sensations that emerge from the brain, so that people can answer questions about the nature, causes, and course of symptoms. Individuals do not make these interpretations idiosyncratically, but through culturally learned and rewarded patterns that provide recognizable interpretations of experience. Culturally appropriate styles of symptom formation and the dominant fashions of the medical and psychiatric professions mold vague and incoherent feelings of suffering into specific symptom patterns. Although diffuse biological or psychological vulnerabilities provide underlying predispositions, the actual, manifest disorders reflect the symptom pool available in the particular cultural context. The result is that very general predispositions to distress become culturally recognizable patterns of hysteria, neurasthenia, chronic fatigue syndrome, anorexia, multiple personality disorder, and so forth.

Hysteria—once the paradigmatic psychiatric disorder—provides a good illustration of this process. A number of studies demonstrate how the symptoms of hysteria manifested the particular cultural, professional, and scientific assumptions of the time (see especially Micale, 1995; Scull, 2009). Some of these assumptions stemmed from the repressive sexual practices in late-nineteenth-century Western societies, some from the diagnostic practices psychiatry used in this period, others from the culturally produced and rewarded models of appropriate symptom formation, and still others from the presence of a charismatic medical leader, John-Martin Charcot. When the social factors that gave rise to the particular symptom display found in hysteria changed, the characteristics of this disorder disappeared and mutated into other disorders such as neurasthenia, chronic fatigue syndrome, and other psychosomatic disorders (Shorter, 1992). A corollary of the historical approach is that disorders that seem natural and universal at the present time might come to be viewed as culture-bound products of a particular time and place. For example, anorexia might represent a culture-bound syndrome that develops where food supplies are abundant, thinness is a valued cultural norm, and outward appearance takes precedence over inner character (Brumberg, 1989).

The emphasis of current anthropological and historical studies on how social, cultural, and professional factors shape the kinds of symptoms that individuals experience would seemingly be very congenial to sociological explanations of mental disorders. Yet, such studies are rare in the sociological literature (e.g., Scott, 2007). The unfortunate result is that sociologists have ceded to anthropologists, historians, and others the study of the cultural shaping and internalization of such contemporary experiences as eating disorders (Brumberg, 1989), chronic fatigue syndrome (Shorter, 1994), multiple personality disorder (Hacking., 1995), or repressed memory of sexual abuse (Ofshe & Watters, 1994).

The strength of sociological psychology studies is their focus on how social factors influence the nature of psychiatric symptoms themselves. Unless sociologists believe that mental symptoms mirror culture-free disease processes, there is no reason why the social shaping of the forms of psychological outcomes should be any less powerful than the social shaping of rates of disorders. The most common symptoms of distress—anxiety, depression, and the like—are very amorphous and amenable to channeling into a variety of particular manifestations. Showing how cultural and social factors shape incoherent predispositions to distress into concrete psychiatric syndromes ought to be, but has not been, a high priority of sociological research. Such studies might, for example, be able to explain the puzzling finding mentioned above of why blacks report better mental health than whites despite their more disadvantaged status.

Another strong point of sociological psychology studies lies in their potential to show how different symptoms might reflect the same underlying disorder: for example, women who now display multiple personality disorders might have developed hysteria in the late nineteenth century. Conversely, behaviors with surface similarity might reflect different types of phenomena: Starvation behavior of fourteenth-century Italian nuns, for example, may reflect a religious mentality far removed from the self-starvation of modern adolescent girls (cf. Bell, 1985; Brumberg, 1989). Studies of how underlying cultural and social dynamics shape particular symptom formations can lead to more valid comparative studies of psychiatric disorders.

Sociological psychology models also have the potential to understand how "appropriate" symptom pools develop and are used in particular sociohistorical contexts (Shorter, 1992). Both general cultural currents and professional fashions shape the manifestations of symptoms. Sufferers are not passive recipients of professional labels but actively, albeit unknowingly, select culturally appropriate ways of expressing distress. How the experience of sufferers interacts with popular symptom interpretations among mental health professionals will be a fruitful topic of study.

Studies of the cultural nature of psychiatric disorders also face difficult problems. One is how to develop standards to compare symptoms across cultures. Claims that the Chinese manifest depression physiologically whereas Westerners display depression psychologically (Kleinman, 1986) or that anorexia at the end of the twentieth century is analogous to hysteria at the end of the nineteenth century (Shorter, 1994) are impossible to verify in the absence of standards that are themselves not culturally specific but that underlie different manifestations of the same underlying condition. The absence of culture-free grounds for comparison across cultures renders all disorders idiosyncratic, which precludes the development of a more general theory of how cultures produce styles of disorder.

In addition, sociological psychology studies have not yet established what particular aspects of social and cultural arrangements lead to various styles of pathology. No general theory explains how factors such as family structures, cultural goals, identity categories, and changing professional models of illness lead styles of psychiatric disorder to emerge, flourish, and disappear. For example, it is not clear whether culture primarily shapes expressions of mental disorder through socialization styles that create enduring personality predispositions or through contemporaneous currents of thought and action that channel distress in culturally appropriate ways. The best sociological explanations will not just assert that culture in general shapes the nature of symptoms but will explain how certain styles of psychiatric expression emerge from particular social contexts.

Social Response Studies

The etiological and sociological psychology models both examine individual conditions. Etiological models explain why some types of people, but not others, develop symptoms of mental illness; sociological psychology models explain how individuals express distress in culturally patterned ways. In contrast, social response models do not study why symptoms emerge but, instead, the responses that people make to symptoms. The kinds of questions social response models ask shift the object of explanation from those who develop symptoms to those who respond to symptoms. These include: When do responders label behavior as mental illness rather than some other type of behavior? How are social characteristics related to variations in labeling mental illness? How do social factors affect the treatment of people after they have been labeled mentally ill?

No grand theoretical tradition underlies social response studies. Instead, this style emerged from empirical studies in the 1950s and 1960s that examined how factors such as family structures (Clausen & Yarrow, 1955), social class (Hollingshead & Redlich, 1958), and culture (Kadushin, 1969) influence responses to mental symptoms. Mechanic's (1968) concept of "illness behavior" provided the first general distinction between these studies and traditional studies of the causes of mental illness. Studies of illness behavior do not explain how symptoms of illness develop in the first place but how, given the presence of symptoms, sufferers themselves and others around them define, classify, and respond to their experiences of illness. These responses include definitions of what sort of condition people have, decisions regarding what to do about the condition, and the consequences of these decisions for the course of the illness.

Studies in the social response tradition indicate that most people who are identified as mentally ill in community surveys either seek no formal treatment or seek help from non-psychiatric professionals or alternative healing sources (Wang et al., 2005). They also find much social variation among the kinds of people who do enter professional treatment (Pescosolido & Boyer, 2010; Thoits, 2005). For example, people of higher socioeconomic status are more likely than those of lower status to attribute personal difficulties to mental symptoms and to seek help from mental health professionals (Olfson & Pincus, 1994a). Because this pattern reverses findings from etiological studies that show rates of mental illness vary inversely with socioeconomic status, social class disparities in rates of treatment are especially sharp.

Findings also show that women are more likely than men to make psychological interpretations of problems and view mental health professionals as appropriate remedial agents (Horwitz, 1987). Conversely, elderly people are far more apt than middle-aged or younger people to make physical interpretations of problems and approach general medical, rather than mental health, professionals for help (Pescosolido & Boyer, 2010). Cultural factors also influence the response to possible mental symptoms. Ethnic minority families, for example, often undertake more informal caretaking, suffer fewer burdens from providing care, and rely less on professionals than white families (Horwitz & Reinhard, 1995; Jenkins, 1988; Lefley, 2010). Minority groups, especially blacks, are also likely to have more negative attitudes toward the use of psychoactive medication than whites (Schnittker, 2003). Overall, those entering and, especially, those remaining in mental health treatment are more likely to be women, middle-aged, highly educated, upper income, and white (Olfson & Pincus, 1994b). "Unmet need" for services—defined as identified psychiatric conditions where people with diagnoses have not sought professional help—is especially acute among ethnic minorities, people with little education, and the elderly (Pescosolido & Boyer, 2010).

Social response studies also indicate that nearly half of people entering treatment do not have a specific psychiatric disorder (Wang et al., 2005). Help-seeking research thus points not only to underuse by people who may benefit from mental health services but also to possible overuse by those with little apparent need of these services. It also shows that the willingness to seek help for mental health problems has grown substantially in recent years. For example, the percentage of the population receiving therapy for depression grew by 76% between the early 1980s and early 2000s (Wang et al., 2006).

Rising rates of mental health treatment are one indicator of a growth in the medicalization of the response to psychological problems (see Chap. 4). Medicalization refers to the definition and/or treatment of some condition as a medical problem. In recent decades, a variety of conditions including attention deficit hyperactivity disorder, anorexia, posttraumatic stress syndrome, premenstrual syndrome, social anxiety disorder, and mild depression have come to be seen as psychiatric disorders (Conrad, 2007; Horwitz, 2002). Factors including biotechnology (which includes the pharmaceutical industry), managed care, and consumer self-assessments all serve as "engines of medicalization" (Conrad, 2005). While medicalization can be bidirectional, there is strong evidence for an overwhelming trend toward medicalization rather than demedicalization (despite contrary cases such as masturbation and homosexuality); thus, most critical attention is given to the "overmedicalization" of human problems.

The social response model also has generated some strong comparative research. The World Health Organization (WHO) studies of schizophrenia show similarities in rates and types of certain symptoms across cultures as well as substantial cross-cultural divergences in the course of symptoms over time (Sartorius et al., 1986). In particular, the outcomes of people with schizophrenia are better in less developed than in more developed countries, where schizophrenia has a more chronic course. The various ways that different cultures respond to people with schizophrenia seem responsible for this finding. Compared to more economically developed societies, less developed ones have lower expectations for performance and place less stigma on the mentally disordered (Hopper, 1992; Waxler, 1974).

Social response studies thus demonstrate how the nature of psychiatric symptoms only partly determines the definition, classification, and reaction to psychiatric conditions. They thus contribute to understanding which sociological factors impede or enhance the optimal provision of mental health services (Mechanic, 2007). Because this orientation complements, rather than challenges, the prevailing psychiatric paradigm of mental disorder, these studies are often conducted in interdisciplinary teams of sociologists and other mental health researchers.

Despite their useful contributions to the study of reactions to mental illness, no major theory has emerged that links particular aspects of society and culture to varying responses to mental illness (see, however, Freidson, 1970; Pescosolido, 1992). Another issue regarding response studies is their typical assumption that professional mental health treatment is beneficial. They take for granted that untreated symptoms indicate "unmet need" for services instead of, for example, successful lay response to disorder. Sociological research rarely asks about the *costs* as well as benefits of professional treatment and the *benefits* as well as the costs of lay treatment. How definitions and responses of community members keep people out of, as well as propel them into, professional treatment is virtually unstudied, as are the consequences of both types of response on the course of symptoms. Response studies could also pay more attention to how group, neighborhood, and societal processes, as well as social characteristics of individuals, affect responses to mental disorder.

Social Constructionist Studies

A final style of sociological explanation asserts that abnormality and normality are not aspects of individual behavior at all but are cultural definitions applied to certain types of behavior. Unlike the first two sociological styles of explanation, the objects of study are not disordered individuals, but how cultural categories of mental illness arise, are applied, and change. Yet, unlike social response studies that either bracket the issue of the nature of mental illness or use notions of "real" mental illness as the basis for explaining variations in social reaction, social constructionist studies directly challenge the view that psychiatric symptoms are properties of individuals. Hence, they are often not compatible with traditional views but present different ways of looking at mental disorder.

The central assumption of most constructionist explanations is that the essence of mental disorders resides in the cultural rules that define what is normal and abnormal (e.g., Foucault, 1965; Hacking, 1999; Scheff, 1966). Their concern is to address how these rules arise and change from one era to another and who has the power to enforce definitions of normality and pathology. The objects of explanation are cultural definitions and rules, not the individuals who manifest the behaviors to which the rules are applied.

The historical origins of the social constructionist view of mental illness are found in Durkheim's *The Rules of Sociological Method* (1895/1966). In this work (unlike in *Suicide),* Durkheim views all sorts of deviant behavior as violations of social rules. Deviance (and by implication, mental illness) has no reality apart from the cultural rules that define its existence. What is considered to be deviant is not dependent on individual behavior, but on the value systems collectivities use to define and apply rules of appropriate and inappropriate behaviors. The "same" behavior manifested in different conditions can be defined in multiple ways depending on the system of classification the particular group employs. Durkheim moved the object of analysis in studies of deviance from individual behavior to cultural definitions of deviance.

Ruth Benedict's (1934) *Anthropology and the Abnormal* was the first application of Durkheim's approach to the study of mental illness. Benedict questioned the universality of Western definitions of normal and abnormal behavior. She asserted that other cultures often consider as normal the same sorts of behaviors—such as paranoia, seizures, and trances—that Western psychiatry defined as abnormal. The Shasta Indians in California or the native people of Siberia, for example, do not view seizures as dreaded illnesses but as signs of special connections to a supernatural power that singles out people for authority and leadership. Or, the Dobuans of Melanesia regard a constant fear of poisoning as normal rather than paranoiac behavior. Conversely, behaviors such as megalomania that are normalized and even rewarded in our culture would be considered abnormal in other cultures. For Benedict and the anthropologists who followed her, "all our local conventions of moral behavior and of immoral are without absolute validity" (1934, p. 79). Normality resides in culturally approved conventions, not in universal standards of appropriate functioning.

The hugely popular writing of the French philosopher Michel Foucault (e.g., 1965, 1973) extended the Durkheimian vision into the history of mental illness in the West. Like Benedict, Foucault viewed madness as an aspect of cultural definitions rather than symptoms in individuals. What makes the mentally ill mad is not anything they do but how their cultures categorize their behaviors. These categories are not constant but change according to the dominant modes of thinking in each time period. For Foucault, mental illness did not exist until the seventeenth century, when the madman replaced the leper as the signifier of threat and disorder in Europe. He asserted that before then madness was linked with wisdom and insight and since then with alien forces that must be controlled by reason or by chains.

Thomas Scheff's *Being Mentally Ill* (1966) brought the social constructionist viewpoint on mental illness into American sociology. Following his definition of deviance as a consequence of the application of rules and sanctions rather than anything the individual does, he defines psychiatric symptoms as "labeled violations of social norms" rather than as intrapsychic disturbances of individuals (Scheff, 1966, p. 25). Scheff renamed psychiatric symptoms as "residual rule-breaking," which refers to norm-violating behavior that lacks an explicit cultural label. "Residual rules" is a category observers use to explain rule-violating behavior that they cannot explain through other culturally recognizable categories. The concept of "residual rule-breaking" refers to the responses made to presumably symptomatic individuals, not to the symptoms themselves. Yet, it differs from the concept of "illness behavior" used in social response studies because, for Scheff, psychiatric symptoms *are* violations of residual rules. It is only possible to recognize symptoms through the cultural categories that classify what sort of phenomenon they are. Scheff's view challenges, rather than compliments, traditional studies of mental illness.

One would expect the concept of residual-rule breaking would be used in studies of how observers interpret and classify rule-breaking behavior and the conditions under which they apply labels of mental illness, or other labels, to behaviors. However, Scheff, and those who followed him (e.g., Rosenhan, 1973; Scheff, 1974; Wenger & Fletcher, 1969), instead studied whether labels of mental illness were correctly or incorrectly applied to individuals, a question that presupposes the validity of a traditional psychiatric notion of mental illness that provides a standard for when labels have been correctly applied. In practice, residual-rule breaking came to be synonymous with the traditional concept of mental illness. The most influential strand of subsequent labeling studies ignores the notion of residual rule breaking entirely and uses labels of mental illness as a factor that exacerbates or alleviates mental symptoms (Link & Phelan, 2010). Labeling becomes an aspect of social responses that explains the course of mental illness, an endeavor far removed from constructionist concerns with the nature of the rules that define what mental illness is.

The best empirical studies of social construction examine how particular categories of disorder such as homosexuality (Bayer, 1987), premenstrual syndrome (Figert, 1996), or posttraumatic stress disorder (Scott, 1990) either succeed or fail to gain recognition as “official” categories of mental illness. Other studies in this vein indicate how mental health professionals legitimize their authority to define and manage mental illness (Kirk & Kutchins, 1992; Lane, 2007). Horwitz (2002) shows how the transformation of the psychodynamic model in the DSM-II to the diagnostic model in the DSM-III did not result from any advances in scientific knowledge. Instead, the many diagnoses in the DSM-III emerged from social dynamics, including psychiatry’s need to have specific illnesses that secured its status as a legitimate medical specialty, distinguished itself from its professional competitors, gained reimbursement for its services, and allowed it to have measurable and reliable objects of explanation.

The greatest advantage of constructionist views of mental illness lies in their sociological conceptualization of the nature of mental symptoms, which does not rely on psychology or biology. Social constructionist studies demonstrate that taken-for-granted categorizations do not simply reproduce symptoms, but are socially contingent systems that develop and change with social circumstances (Berger & Luckmann, 1966). Biological psychiatry, for example, which defines mental illness as a brain disease, legitimizes a particular view of social reality that has great credence in contemporary Western societies. Yet, attributing symptoms to elevated levels of serotonin has no more inherent validity as a cultural explanation than attributing them to unconscious forces or to demonic possession. Views that symptoms are produced by brain disorders become legitimate because of the credence such views have in a particular culture, not from the actual locus of these symptoms in brains. The explanation and functioning of social systems of classification are questions that are independent of the explanation of the types of symptoms individuals develop.

The constructionist perspective also entails a number of weaknesses. One is its inability to deal with any inherent constraints that biology creates in the manifestations of mental illness. Not everything about mental illness is socially constructed, because some aspects of psychiatric disorders would create problems, regardless of how they are defined (Murphy, 1976). There may be especially limited variation in the construction of symptoms that result from brain dysfunctions. Constructionist studies have yet to develop a language to deal with the impact of, say, massive alcohol consumption, psychotropic drugs, elevated levels of serotonin, or schizophrenia, apart from their social definitions.

Another problem of constructionist models stems from their view that mental disorder is whatever is considered as such in a particular social context. Despite this assumption, constructionists typically present their work as a critique of traditional psychiatric views. Yet, their concept of mental disorder provides no logical or scientific grounds for claiming that any view of mental illness is better, or worse, than any other view. A constructionist has no criteria to criticize, for example, the labeling practices of nineteenth century English psychiatrists who claimed that adolescents who masturbated were mentally disordered or their American counterparts who diagnosed runaway slaves with mental disorders. The constructionist view has no extra-cultural grounds to state why labels are correct or incorrect and, therefore, it cannot judge the adequacy of any classification of mental symptoms.

Constructionist studies also face the problem of how to conduct comparative work in the absence of criteria that can compare mental disorders across different contexts. While it is true that categories from one culture should not be imperialistically imposed on another culture, it is equally true that cross-cultural understandings of mental illness must rely on some underlying notion of what is constant across cultures. For example, the claim that some cultures express depression through physiological symptoms and others through psychological symptoms depends on some basic understanding of what depression is that transcends its symptomatic expression (Horwitz & Wakefield, 2007). Whenever the rules used to classify mental disorder are considered to be exclusive products of a particular setting, comparisons across settings become a conceptual impossibility.

Constructionist studies also suffer from the coercive model of psychiatry that they embrace (Micale, 1995). They tend to equate psychiatric practice with exploitative social control without therapeutic benefit. Similarly, constructionist views tend to see patients as passive victims of coercive psychiatric practices. Yet, patients often actively participate and shape their treatment, both because they initiate the vast majority of psychiatric help seeking and because mental health professionals rely on patients' descriptions of their symptoms. Indeed, patients often desire more treatment than professionals are willing to give them. Borges and Waitzkin (1995), for example, find that help seekers are commonly disappointed when their physicians fail to prescribe desired psychotropic drugs.

A final weakness of constructionist studies is that their view of mental illness as a cultural label can ignore the genuine suffering of people with psychiatric disorders. The constructionist literature sometimes makes it appear as if individuals' problems would disappear if they were not labeled as mentally ill. This ignores the deep pain that can inhere in unlabeled, as well as labeled, symptoms. The political extension of the constructionist view that labeling is responsible for symptoms can also extend to political advocacy that attacks governmental support for the mentally ill (e.g., Breggin, 1991; Szasz, 1974).

The social constructionist view has led to multiple insights about the nature of mental illness that illuminate how conceptions of mental illness emerge and what their consequences are. Like Durkheim, their insights speak to the operation of society and culture, not to the functioning of individual personalities or brains. The major shortcoming of constructionist studies is that—lacking a conception of what is natural—they cannot compare, evaluate, and critique the adequacy or inadequacy of various concepts of mental illness.

Horwitz and Wakefield attempt to correct this shortcoming by providing a universal base around which social constructions of mental illness develop. In *The Loss of Sadness* (2007), they use an evolutionarily grounded concept of mental disorder, the harmful dysfunction (HD) approach, which provides the grounds for analyzing variation in social evaluations of depressive symptoms. They assume that the natural biological functioning of psychological mechanisms, as well as social values, must be incorporated into adequate explanations of mental disorders. Just as the heart is designed to pump blood, the lungs to breath, or the kidneys to process waste, evolution designed psychological processes of cognition, motivation, emotion, and the like to operate in certain ways: sadness to respond to loss, fear to danger, anger to inequity, and so forth. When these emotions emerge and are maintained in appropriate contexts they are natural, not disordered. Only psychological conditions that are caused by dysfunctions—failures of psychological mechanisms to perform the functions that evolution designed them to serve—are mental disorders. Dysfunctions, which can lie in either the hardware of the brain or the software of the mind, exist when psychological processes either arise in contexts they are not designed for (e.g., fear in the absence of danger or sadness without loss) or fail to emerge in contexts when they ought to arise (serious danger or loss).

The harmful component of the HD analysis stipulates that only dysfunctions that are also socially disvalued, and therefore harmful, are mental disorders (Wakefield, 1992). The HD analysis, however, differs from the constructionist view because negative social evaluations are never sufficient conditions for the presence of disorders. Many conditions, whether ignorance, ugliness, lack of willpower, or criminality, are also socially disapproved and impairing, but are not disordered because they do not result from psychological dysfunctions. An adequate concept of mental disorder thus requires a factual component that distinguishes disorders that stem from psychological dysfunctions from other types of harmful conditions.

Horwitz and Wakefield (2007) use the HD conception to distinguish normal sadness from depressive disorders. Findings from a variety of studies indicate that sadness naturally arises in situations that involve losses of valued close attachments, social statuses, and meaning systems. In addition, non-human primates show a clear resemblance to humans in observable features of expression, behavior, and brain functioning after experiences of loss. Loss responses thus appear to be an inherited aspect of the human genome. Moreover, human tendencies to become sad in response to loss appear very early in life before infants have learned culturally appropriate ways of expressing sadness. Further, cross-cultural and historical studies show distinct continuities in the expression of loss across widely different cultural contexts, presumably because they stem from the evolution of humans as a species. The biological roots of normal sadness, however, in no way preclude important social influences in the particular types of situations that trigger loss responses, the sorts of symptoms that arise in response to loss, and the norms regarding the appropriate expression of sadness. While cultural and individual meanings play essential roles in shaping the final expression of emotions, what they shape is biologically embedded.

The HD view also provides the grounds for critiquing mental health practices. The failure to perform an evolutionarily designed function is a necessary condition that sets limits on the legitimate use of the concept of mental disorder. A condition that is not a dysfunction is not a disorder. Yet, the current DSM IV definition of major depression conflates normal sadness that arises after loss and that naturally dissipates over time with true depressive disorders that are not proportionately grounded in social contexts (Horwitz & Wakefield, 2007). This definition not only medicalizes normal emotions but hampers the search for the causes, prognoses, and treatments of true disorders that are psychological dysfunctions.

The HD concept distinguishes clear poles of disordered and non-disordered conditions but at the same time is compatible with vague, fuzzy, and ambiguous boundaries between disordered and non-disordered states. Cultural values and social interests, not nature, set the borders between definitions of normality and pathology that are found in any particular time and place. The HD perspective accepts the underlying reality of natural mental disorders while recognizing that cultural has profound influences on the expressions, definitions, and responses to mental illness. Nature and culture do not provide opposing explanations but can be complementary parts of a single conception of mental disorder.

A Synthesis of Perspectives

There is no single style of sociological explanation of mental illness. Even the four general styles presented here represent a great simplification of how sociologists study mental disorder. A central issue is whether these varying styles of explanation are distinct ways of studying mental illness, or whether they can be synthesized. The possible integration of styles depends on the nature of the questions that each seeks to answer. Whenever two different styles address the same question, it makes sense to ask whether the basic assumptions that underlie each can be reconciled. However, when styles address different questions, they may in some cases be complementary but in other cases irreconcilable, so that attempts to integrate them are bound to fail.

Traditional etiological research must be grounded in standardized measures that can be applied across various groups. Although it requires the use of comparable measures, it can benefit from culturally sensitive research that might reveal how “the same” can actually mean different things in different settings. Adding a cultural dimension to etiological research would enhance its ability to ensure that standardized measures in fact measure the same thing for different people and in different settings. Likewise, greater sensitivity to the fact that members of different groups might manifest distress in different ways could indicate that symptoms of presumably different states might actually measure the same underlying condition. Attention to issues of cultural specificity can help etiological research attain its central goal of comparing rates of mental disorder across different groups.

Conversely, research in sociological psychology can benefit from understanding which aspects of mental disorder are comparable, as well as which are different, across settings. Indeed, cross-cultural comparisons of different types of psychiatric symptoms are impossible in the absence of some criteria that identify how different styles of symptom presentation are variants of the same general condition. A central question for sociological psychology studies should be the cultural variation in the presentation of universal types of human distress. The cultural basis of particular types of psychiatric disorders does not preclude the development of standardized measures of disorder that can also be applied in other settings. Indeed, if research shows that different symptoms represent the same underlying syndrome in different groups, the sociological psychology model would make a basic contribution to traditional etiological work.

Social response models are highly compatible with both etiological and sociological psychology studies. The study of illness behavior begins with the questions of how people interpret, define, and respond to symptoms, which are complementary to explanations of how these symptoms arose in the first place. Studies that begin with the presence of conditions identified in etiological studies and then examine the social variation in the response to them are stronger than studies of social response alone, because they provide a point of comparison—the presence of psychological distress—that would otherwise be absent.

Constructionist views are more difficult to integrate with other styles of explanations. For most constructionists, mental symptoms *are* cultural categories with no reality outside of their cultural definitions. When this is the case, constructivist and etiological explanations do not explain the same phenomena and, although each can and should attend to the findings of the other, these orientations cannot fruitfully be synthesized. For example, suppose that schizophrenia is eventually shown to stem from some brain dysfunction. This would not invalidate a constructionist conception, because the resulting changes, if any, in social conceptions of schizophrenia would become part of the cultural understanding of the disorder. Schizophrenia as a brain disorder that is invariant across societies is a distinct entity from the cultural conception of schizophrenia as a brain disorder, which can only arise and have consequences in particular cultures. The debates between proponents of the etiological and constructionist styles of explanation can never be resolved fruitfully unless both sides agree that they are engaged in different types of research enterprises. Similarly, although response and constructionist explanations do not conflict with each other, each has a different goal. Constructionists critique what social response studies take for granted—the definition of mental disorder; conversely, response studies coexist with definitions of mental disorder that constructionists reject. The two types of studies do not compete, but they have different research ends.

The Horwitz and Wakefield (2007) approach provides an alternative to the view that the constructionist and etiological approaches are mutually exclusive. They use the HD concept of mental disorder to see how various cultures and interest groups construct different definitions, interpretations, and responses around this presumably universal base. This allows them to compare the reaction to mental illness across different settings as well as to critique criteria used to define mental illnesses. The extent to which this approach, which does not neatly fit any of the traditional sociological models of mental illness, will become widely adopted is an open question.

Constructivist explanations are more readily integrated with sociological psychology studies. Indeed, one of the central flaws of constructivist research—ignoring the experiential aspect of mental disorder—can be overcome by viewing disorders as culturally specific but experientially real. In addition, the synthesis of these two perspectives introduces needed lay perspectives into a constructionist model that has been too exclusively focused on the behavior of mental health professionals (see, however, Thoits, 1985). A synthesis of these orientations could show that many people considered mentally ill are not passive victims of professional labelers but actively use culturally constructed conceptions of psychiatric disorder to attain valued personal and social goals. Likewise, sociological psychology studies can benefit from paying attention to the constructionist emphasis on how various types of cultural labels arise, as well as how individuals come to internalize them.

Conclusion

Sociologists have made, and will continue to make, major contributions to the study of mental health and illness. Some of these contributions complement the findings of biological and psychological research, others contradict these findings, and still others provide a distinctively sociological perspective on mental illness. None of the styles of explanation considered here is inherently superior to the others, and, if used well, all provide distinctive insights about the nature of mental health and illness. Optimal insight will come, however, when users of any style do not accept the common sense view of the non-sociological nature of mental disorders, but critically analyze the phenomena they seek to understand. Not only the causes but also the very nature of psychiatric symptoms have social and cultural aspects that biological and psychological approaches ignore. Some fundamental aspects of psychological disorders may turn out not to be psychological at all.

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Part II
Methodology

Chapter 7
Issues in Mental Health Assessment

Galen E. Switzer, Mary Amanda Dew, and Evelyn J. Bromet

Abbreviations

DSM-III	Diagnostic and Statistical Manual of Mental Disorders version III
DSM-IV-TR	Diagnostic and Statistical Manual of Mental Disorders version IV
ICD-10	International Classification of Diseases ICD-10
NSA	Neuropsychiatric Screen Adjunct
NIMH	National Institute of Mental Health
DIS	Diagnostic Interview Schedule
ECA	Epidemiologic Catchment Area
SCID	Structured Clinical Interview for DSM-IV
WHO-CIDI	World Health Organization-Composite International Diagnostic Interview
MINI	Mini International Neuropsychiatric Interview
PROMIS	Patient Reported Outcomes Measurement Information System
NIH	National Institutes of Health
IRT	Item Response Theory
CAT	Computerized Adaptive Testing
MASS	Mood and Anxiety Spectrum Scales
CATs	Computerized Adaptive Tests

G.E. Switzer (✉)
Departments of Medicine, Psychiatry, and Clinical and Translational Science,
University of Pittsburgh School of Medicine and Medical Center, Iroquois Building
Suite 502, 3600 Forbes Ave, Pittsburgh, PA, 15213, USA

Center for Health Equity Research and Promotion, VA Pittsburgh
Healthcare System, Pittsburgh, PA, USA
e-mail: switzerge@upmc.edu

M.A. Dew
Departments of Psychiatry, Psychology, Epidemiology, and Biostatistics,
University of Pittsburgh School of Medicine and Medical Center, Pittsburgh, PA, USA

E.J. Bromet
Department of Psychiatry, Stony Brook University, Stony Brook, NY, USA

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CIDI	Composite International Diagnostic Interview
GHQ	General Health Questionnaire
HSCL	Hopkins Symptom Checklist
CES-D	Center for Epidemiologic Studies Depression Scale
SCL-90	Symptom Check List
BDI	Beck Depression Inventory
CIS	Clinical Interview Schedule
HAQ	Health Assessment Questionnaire
PTSD	Posttraumatic stress disorder

> Biosocial and sociocultural factors leave imprints on mental health which are discernible when viewed from the panoramic perspectives provided by a large population. (Srole, Langner, Michael, Opler, & Rennie, 1962, p. 31)

Deviations from "normal" emotional functioning have been recognized and documented for as long as written accounts of history have existed. Parables concerning mental disorder appear in the written works of all major religions, and statutes concerning the mentally ill were a part of early Roman law (Eaton, 1980). Depending on the particular historical period in which they lived, those whose behavior did not conform to accepted norms were labeled variously as possessed, holy, mad, or insane. In the late nineteenth and early twentieth centuries, as mental disorders increasingly came under the purview of medical science, the previous broad categories of mental disorder (e.g., raving, melancholic, lunatic, idiot; Jarvis, 1971) began to be subdivided into more specific "diagnostic" categories. This categorization process, or nosology, has continued to the present day and is currently embodied in its most specific form as the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, version IV, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000), and the International Classification of Diseases (ICD-10; World Health Organization, n.d.), which describe the symptoms and diagnostic criteria of more than 250 psychiatric disorders (Kendler, 2009). New versions of these classification systems are planned for 2013 and 2015, respectively. In this chapter, we describe the historical roots, current practical issues, and future directions of the assessment of mental health in community-based populations. Our focus on macro, community-level assessment stems, in part, from the fact that sociologists have generated much of the literature and instrument development for population-based mental health assessment. In general, we focus on instruments designed for, and studies conducted with, adults.

Although in modern times the process of evaluating and diagnosing mental disorders in clinical/treatment settings has been primarily the work of psychiatrists, cross-fertilization has led to increased interest in mental health and disorder in several other disciplines. Figure 7.1 depicts four major parent disciplines concerned with mental health issues in terms of the domains on which they draw in conceptualizing the study of mental health and disorder.

Psychiatry and psychology traditionally have focused relatively more heavily on internal states, whereas epidemiology and sociology have focused on characteristics external to the individual in examining the causes of mental health issues. Psychiatry, especially, tends to emphasize biological factors in the etiology of and solutions to mental disorders. In contrast, psychology places relatively more emphasis on cognitive and affective processes. Sociology and epidemiology both focus to a greater degree on external factors, although sociology tends to give greater weight to societal-level structures and processes, whereas epidemiology, more than any of the other disciplines, emphasizes physical environmental factors in mental disorder. Each discipline contributes a unique perspective and emphasizes slightly different, but overlapping, sets of variables as predictors and outcomes of mental disorders.

Where a discipline theoretically locates the "causes" of mental disorders is a critical determinant of how mental health will be assessed. Psychiatrists and psychologists typically assess mental health individually with clinical interviews, neurological exams, and behavioral observation, whereas epide-

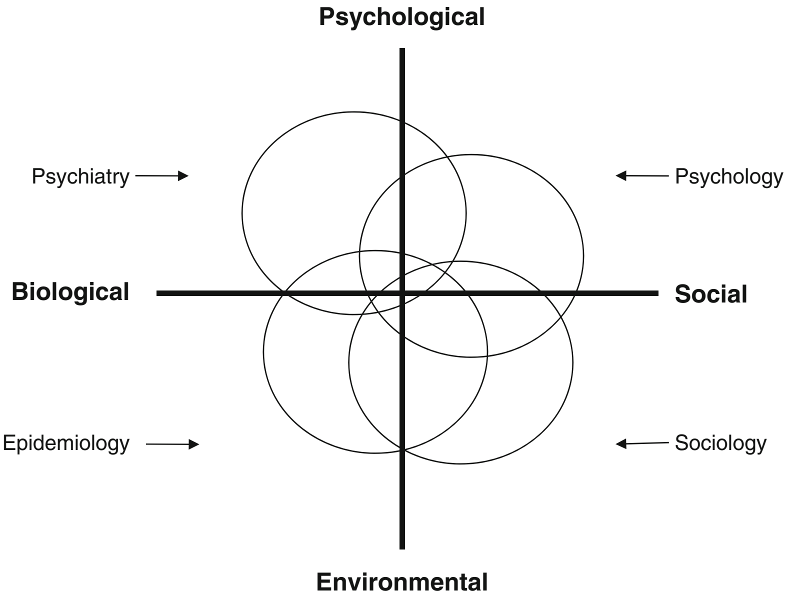

Fig. 7.1 Major disciplines concerned with mental health issues

miologists and sociologists are more likely to conduct population-based studies using community surveys, interviews, and secondary data sources. Nevertheless, across the disciplines, there is some consensus that mental health and disorder involve the interaction of unique personal characteristics with societal and environmental factors. This multifactorial perspective has produced several hybrid areas of study, including psychiatric sociology, social psychiatry, and psychiatric epidemiology. Each of these hybrids has focused on applying and evaluating the theories of its parent discipline to mental health issues. Among these hybrids, the psychiatric subdisciplines within sociology and epidemiology stand out as fields that seek to combine elements from all four domains (see Fig. 7.1). Consequently, the history of these areas will be adopted as the organizing perspective from which to view the development of community mental health assessment research in the past 150 years.

Brief History of Community Mental Health Assessment

Although this chapter focuses primarily on relatively recent developments in assessment instruments and techniques, we begin with a brief discussion of the evolution of community mental health evaluation. Dohrenwend and Dohrenwend (1982) identified several distinct periods of instrumentation and methodological developments that culminated in what they refer to as "third-generation" studies. During the past 10 years, there have been additional developments, particularly in the application of item response theory to computer-adaptive testing and a shift toward merging formerly distinct diagnostic instruments—designed to provide a discrete mental health diagnosis—and dimensional measures—designed to provide information about an individual's relative symptom level rather than a discrete diagnosis—which has ushered in a "fourth generation" of instruments. Each of the four generations of studies and instrument types has distinctive characteristics, which is summarized in Table 7.1.

Table 7.1 Characteristics of four generations of epidemiological research

Generation	Timespan	Method	Assessor	Primary goal	Limitations
First generation	1850–1950	Key informant Agency records Direct interview	Clinician	General disorder type	Validity, reliability
Second generation	1950–1980	Direct interview	Clinician or lay interviewer	Impairment	Validity
Third generation	1980–present	Direct interview Self-report survey Computer assisted	Clinician, lay interviewer, or self	Diagnosis or impairment	Validity
Fourth generation	2000–present	Computer adaptive IRT-based models	Self	Diagnosis or impairment	Validity

Source*:* Adapted from Dohrenwend and Dohrenwend (1982)

Conducted prior to World War II, the first set of community mental health studies attempted to assess broad patterns of mental disorder in the community by gathering information from informants, medical records, and, occasionally, from direct interviews (e.g., Jarvis, 1971). One of the first systematic efforts to assess treated prevalence of mental disorder in the community was conducted by Faris and Dunham (1939). These sociologists reviewed all medical records of Illinois state mental hospitals from 1922 through 1931 and drew inferences about the rates of diagnosed general mental disorder, and of schizophrenia specifically, in the adult population living in and around Chicago. Their expectation was supported—that a variety of sociological factors would result in higher rates of general disorder and schizophrenia in more densely populated, less affluent, inner-city areas. This application of sociological and epidemiological methodology to the assessment of mental disorder in the community was a departure from the traditional individualized clinical methods which tended to emphasize the unique aspects of each individual's personal history as distinct from the commonalities that exist across groups of similar persons or similar exposure to environmental conditions.

The primary limitation of such first-generation community mental health studies was the fact that prevalence estimates were based on treated (rather than general population) samples; rates of individuals seeking mental health treatment were used directly to estimate rates of disorder in the population. It is now well established that only a fraction of those with mental disorders ever seek treatment, meaning that these initial community studies almost certainly underestimated "true" prevalence rates (Dohrenwend & Dohrenwend, 1982). In addition, the lack of standardized guidelines for diagnosing disorders at that time led to problems with comparability among these studies (Faris & Dunham, 1939).

The involvement of the USA in World War II ushered in the second generation of assessment studies. In the 1940s, the Neuropsychiatric Screen Adjunct (NSA) was developed by the US Army to eliminate from the armed forces those individuals who could not serve effectively as soldiers (Star, 1950; Stouffer et al., 1950). The NSA found much higher prevalence rates of psychiatric impairment than expected based on pre-World War II studies. The necessity of evaluating large numbers of individuals for military service, coupled with the strikingly high observed rates of impairment, provided the impetus for the further development and refinement of instruments for use in community settings in the postwar period.

Two classic studies from this second generation—the Midtown Manhattan Study in New York (Srole et al., 1962), and the Stirling County Study in Nova Scotia (Leighton, Harding, Macklin, Macmillan, & Leighton, 1963)—were designed and conducted by sociologist Leo Srole and psychiatrist Alexander Leighton, respectively. Both studies drew on and expanded the Selective Service NSA items as a basis for rating individuals along 5- or 6-point continua of psychiatric impairment ranging from completely well to severely impaired. Both studies used relatively sophisticated techniques—including solicitation of a diverse set of expert opinions, pilot testing items, and assessment agreement between interview items and psychiatric ratings—to improve their instruments. In addition, these studies used state-of-the-art probabilistic sampling methods to select several hundred respondents who were representative of their respective communities. Advantages of these second-generation studies over previous efforts to assess population-based mental health included the use of community samples and direct interviewing, methods that had not previously been feasible. These new methods were made possible by the fact that these new instruments could be administered by nonclinician lay interviewers rather than psychiatrists, making them substantially less costly. Finally, there was growing evidence that instruments developed during this second phase of epidemiological investigation were considerably more reliable than their predecessors (Dohrenwend, 1995).

However, second-generation efforts did evoke some of the same validity concerns as first-generation studies. First, instruments used in these studies did not adequately assess the full range of clinical diagnostic categories, including impairment resulting from behavioral disorders or substance abuse. Second, and perhaps more important, there was ample evidence that psychiatric impairment, as defined by instruments used in the community, was not comparable to disorder as defined by psychiatrist clinicians; impairment was measured on a continuous scale quite different from discrete diagnostic categories. Given that diagnosis of disorder was not the central purpose, however, it is clear that many of these instruments did provide relatively stable dimensional assessments of areas such as general distress and depression (Link & Dohrenwend, 1980). Finally, additional validity concerns arose during this period as researchers and psychiatrists noticed large differences in the rates of psychiatric disorders between countries. The most striking example involved reported rates of manic-depressive psychosis in Britain that were 20 times those found in the USA (Kramer, 1961), which led to a large multisite study in the two nations (Cooper et al., 1972). This collaborative study—in which the Present State Examination (PSE) was chosen as the standard instrument—revealed that the cross-national differences had been produced by differences in instrumentation and methods of diagnosis, findings that led to further refinement and standardization of community diagnostic instruments.

In a reflexive process, the demand for reliable instruments for epidemiological and clinical-based research spurred the psychiatric community to undertake several major revisions in its core diagnostic manual. Increasing detail and specificity of the DSM, in turn, led to the development of a third generation of instruments based on the more specific diagnostic categories. In response to the high cost of having clinicians administer these instruments in the community, the National Institute of Mental Health (NIMH) developed a fully structured interview that could be administered by lay interviewers. The Diagnostic Interview Schedule (DIS; Robins et al., 1988), based on the DSM-III, was designed for use in the Epidemiologic Catchment Area (ECA) studies conducted at five sites in major US cities and has now been translated into multiple other languages (Regier & Robins, 1991) and tailored for use in special populations including children (Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000). In the past two decades, the number and variety of psychiatric assessment instruments designed specifically for use in the community has proliferated. Currently, a variety of fully structured and semistructured diagnostic instruments are available for community-based research, including most prominently the Structured Clinical Interview for DSM-IV (SCID), the World Health Organization-Composite International Diagnostic Interview (WHO-CIDI), and the Mini International Neuropsychiatric Interview (MINI).

Advances in statistical techniques in the measurement of mental health and a re-evaluation of the paradigm that had previously strictly divided instruments into diagnostic or dimensional categories has led to the emergence of a fourth generation of instruments. The application of newer statistical techniques to the measurement of mental health is reflected in the development of the Patient Reported Outcomes Measurement Information System (PROMIS) item banks. The move toward integration of diagnostic and dimensional instruments is reflected in the development of the DSM-5. These mental health measurement innovations are discussed in the following paragraphs.

In 2004, a group of US-based scientists was funded under the National Institutes of Health (NIH) Roadmap for Medical Research Initiatives to apply item response theory (IRT) techniques to advance the assessment of patient-reported outcomes. Most measures of mental health developed in the previous 50 years were based on classical test theory and entailed administering a set number of identical items to all respondents and calculating a total score. The new initiative used IRT applied in the context of computerized adaptive testing (CAT) to (a) tailor a set of items administered to a particular respondent, (b) reduce the number of overall items necessary to identify a respondent's specific impairment level, and (c) to do this without a loss in precision of measurement (Cella, Gershon, Lai, & Choi, 2007; Cella et al., 2010). Although a full description of IRT methods is beyond the scope of this chapter, the basic tenets of the theory are that (a) an individual's responses to an individual item reflects his or her position on a single, continuous, latent variable (e.g., depression), and (b) the probability that the individual will give a certain response (e.g., one that indicates that he or she is depressed) can be determined based on the individual's position on the latent variable (Hays, Morales, & Reise, 2000; Massof, 2011; Thomas, 2010). In practice, this means that a very small number of items administered sequentially and purposefully is necessary to determine an individual's precise degree of psychological distress such as anxiety or depression. When paired with a computer algorithm's ability to select items based on previous responses and flexibility in administering different item sets to different respondents, IRT methods can be optimally applied to mental health assessment. Using CAT techniques, an individual is presented with a series of items specifically selected based on his/her previous responses. For example, if an individual's initial response indicated low levels of depression, the algorithm would select only items that would help to specify exactly where in the low-moderate range the person was located (i.e., few of very high depression would be presented). Thus, rather than being presented with many items that provide no additional information, an individual is presented with the fewest items that can accurately pinpoint his or her position in the latent construct. In an example of the potential power of IRT methods in reducing participant burden, Gibbons and colleagues examined the 626-item Mood and Anxiety Spectrum Scales (MASS) using IRT and CAT methods. They showed that a 95% reduction in the number of MASS items administered is achievable with virtually no loss of information (Gibbons et al., 2008).

The goal of PROMIS was to use IRT methods to create a set of item banks for patient outcomes that could be used in CAT or standard paper-and-pencil format. The PROMIS group used literature reviews and other standard item development techniques to gather, refine, or develop items in six domains including physical function, pain, fatigue, emotional distress, social health, and sleep/wake disturbance—additional domains of satisfaction with participation in social roles and cognitive function have been more recently developed. The emotional distress domain is further subdivided into depression, anxiety, anger, and substance misuse domains. In general, investigators can choose between two types of PROMIS instruments: computerized adaptive tests (CATs) or set predetermined short forms. Regardless of which form is selected, the results can be converted into a common metric normed for the US general population (Ader, 2007; Cella et al., 2007; Liu et al., 2010). The developers of PROMIS and other investigators affiliated with this group have conducted extensive psychometric testing of the items in the PROMIS database and evaluation of items in all domains is ongoing.

Although the overwhelming majority of mental health assessment instruments fall into the two major categories around which this chapter is organized—diagnostic and dimensional—recent re-evaluation of the nature and definition of mental health disorders has led to an attempt to integrate these two forms of assessment in the forthcoming DSM-5—planned for release in 2013 (www.dsm5.org; Möller, 2008). At issue is whether the distinction between normal distress and disorder is qualitative (i.e., dichotomous) or quantitative (i.e., continuous). The DSM series has long been based on the argument that mental health is characterized by qualitative differences that can be converted to categories or diagnoses—although the DSM-III and the DSM-IV explicitly state that no definition of a mental disorder adequately specifies precise boundaries between normality and abnormality (Stein et al., 2010). In contrast, revised definitions of "mental disorder" proposed for the DSM-5 acknowledge the dimensional or continuous aspects of mental health (First & Wakefield, 2010; Stein et al., 2010). In addition, the DSM-5 will incorporate dimensionality into the manual by presenting a standardized method for assessing severity for all diagnoses, with an emphasis on simplicity and clinical utility (www.dsm5.org). The developers of the DSM-5 indicate that:

> Some dimensional assessments may be useful before a formal diagnostic evaluation is conducted, such as assessing for depression in primary care, identifying features like suicidal ideation, or rating personality traits; some may be useful for refining the diagnosis; others maybe specific measures useful once a diagnosis is established, such as severity ratings of the condition that could be used to establish a baseline measure of severity and then track its change over time. (www.dsm5.org)

Field trials of the DSM-5 are currently underway, and available item banks from PROMIS that correspond to the DSM-5 diagnoses—for example, depressed mood, anxiety, and sleep problems—are being tested for use in defining the severity component of each diagnosis. The DSM-5 developers note that a full range of dimensional assessments is currently being considered for inclusion (www.dsm5.org).

Review and Summary of Major Assessment Techniques

Although the DSM-5 will include both diagnostic and dimensional components, the majority of mental health measures used in community settings fall into only one or the other of these two categories. Dimensional instruments—also called screening instruments or symptom inventories and designed for use by lay interviewers in research contexts—were designed to provide information about an individual's relative symptom level rather than a discrete diagnosis. These instruments can be fully structured (no deviations in how questions are asked) for lay interviews, semistructured (with probes as needed to gather maximum information) for clinician interviews, or self-administered questionnaires.

In contrast, diagnostic instruments—also called schedules or examinations—are based very closely on the specific symptoms described by the DSM-IV and the ICD-10 (ICD-11 is planned for release in 2015; WHO, n.d.) used to make diagnostic judgments in the clinic. Although the DSM-5 will include dimensional assessments, diagnosis of mental disorders will remain the primary focus. One of the central goals in the development of diagnostic instruments was to allow nonclinicians to conduct fully or semistructured interviews that provide the equivalent of psychiatric *diagnoses.* Although there are many differences between diagnostic and dimensional instruments, perhaps the central distinction is that diagnostic instruments categorize individuals into dichotomous outcomes (e.g., meets criteria for major depression or not), whereas dimensional instruments place individuals along a continuum of symptom severity (e.g., more or less depressed). For a thorough review of diagnostic and dimensional instruments used to assess mood disorders, see Dew, Switzer, Myaskovsky, DiMartini, and Tovt-Korshynska (2005).

The debate over the relative advantages and disadvantages of diagnostic versus dimensional approaches continues both at academic and policy levels (Brown & Barlow, 2005; Widiger & Samuel, 2005), although there is substantial evidence that the field may be moving toward a middle ground that integrates the two approaches (Läge, Egli, Riedel, Strauss, & Möller, 2011). Proponents of the diagnostic approach have historically argued that discrete categorization of mental illness is necessary from the practical standpoint of determining who is eligible for insurance and/or social service assistance. In addition, they asserted that diagnostic typology, founded on consistent decision rules, would produce more precise assessment of mental status than would dimensional systems (Dew et al., 2005; First & Wakefield, 2010; Regier et al., 1984). Moreover, they have argued that mental illness is more than a matter of degree of severity along a continuous dimension; conditions such as schizophrenia and major depression are qualitatively distinct from normal human functioning (Linscott & van Os, 2010).

In contrast, critics of the diagnostic approach argue that this approach is undermined by (a) failure to identify a single laboratory marker specific to a DSM-defined syndrome, (b) the high rates of overlap among disorders, (c) the fact that many psychotropic medications are equally efficacious for several DSM categories—arguing against distinct diseases, and (d) failure to identify a single neurobiological phenotypic marker or gene useful in diagnosing a major psychiatric disorder (Craddock & Owen, 2010; Möller, 2008). They contend that discrete measurement of nondiscrete psychological phenomena (1) disregards useful information about the degree and characteristics of psychological distress; (2) confounds information on symptoms, causes, and consequences of distress; (3) provides assessments that are relatively insensitive to changes in mental status (Löwe et al., 2008). Tables 7.2 and 7.3 list psychiatric assessment instruments that have been widely used in community studies. Instruments are divided into two tables corresponding to whether they provide a diagnostic (dichotomous; Table 7.2) or dimensional (continuous; Table 7.3) assessment of mental disorder.

Diagnostic Instruments

All the diagnostic or categorical instruments listed in Table 7.2 are based on the DSM or ICD and assess lifetime and/or current psychiatric status for a broad set of disorders. Most were developed originally for use in clinical research as opposed to epidemiological field studies—with a few exceptions, most notably the DIS and the Composite International Diagnostic Interview [CIDI])—because they were generated for use in a clinical setting, where the ultimate goal was to treat psychiatric disorders. These instruments generally assign only one primary diagnosis using a hierarchical system—in other words, only one diagnosis is assigned according to a rank order and dual or multiple diagnoses are not usually assigned. One of the drawbacks of using these instruments (e.g., Structured Clinical Interview for DSM-IV [SCID] and PSE) in a hierarchical format is that, although assigning a single primary diagnosis may be useful for guiding treatment decisions in clinic settings, the high degree of comorbidity in psychiatric disorders may make it less desirable for assessing the prevalence of psychiatric disorders in the population. Additionally, diagnostic instruments can be fairly lengthy, because they cover a broad range of areas and may lead to respondent fatigue.

Traditionally, diagnostic instruments used in the community have demonstrated moderate reliability and relatively low validity (Karterud, Øien, & Pedersen, 2010). Dew et al. (2005) provide an overview of reliability and validity issues for diagnostic instruments, particularly in the context of the assessment of mood disorders in community settings (e.g., SCID). They conclude that many of these diagnostic instruments offer adequate test-retest and interrater reliability but only moderate-to-low levels of validity evidence. (For thorough descriptions of theoretical and practical issues in measure validity and reliability, see McDowell, 2006; Nunnally & Bernstein, 1994). One of the difficulties in establishing reliability for diagnostic instruments is that the criteria for reliability are relatively strict. To be deemed reliable, a diagnostic instrument must identify the same individuals as cases and as noncases in a second administration of the schedule as in the initial administration. This dichotomous, or “hard,” approach to reliability is generally more stringent than the correlation coefficient used to establish reliability of a dimensional scale.

Validity concerns about diagnostic instruments are currently even more pressing than reliability concerns (Robins, 2002). For example, there is evidence that diagnoses assigned in community assessments may differ significantly from the number and type of diagnoses assigned to the same samples through clinical interviews (Costa et al., 2007; Gum, King-Kallimanis, & Kohn, 2009). However, there is some controversy over whether clinical interviews should serve as the gold standard by which to assess the

Table 7.2 Frequently used diagnostic schedules

Diagnostic schedule	Source	Format: fully vs. semi-structured interview vs. self-administered questionnaire	Domains assessed	Administration format
WHO CIDI Composite International Diagnostic Interview	Kessler and Unstun (2004)	Full	Axis 1[a]	Lay interview
CIDI-SF Composite International Diagnostic Interview- Short Form	Gigantesco and Morosini (2008)	Full	Axis 1	Questionnaire
DIGS Diagnostic Interview for Genetic Studies	Nurnberger et al. (1994)	Full	Axis I	Clinician interview
DIS (III, IIIA, IIIR, IV) Diagnostic Interview Schedule	Robins, Helzer, Croughan, and Ratcliff (1981)	Full	Axis I	Lay interview
DIPD-R Diagnostic Interview for Personality Disorders	Zanarini, Frankenberg, Chauncey, and Gunderson (1987)	Full	Axis II	Lay interview
MINI Mini-International Neuropsychiatric Interview	Sheehan et al. (1998)	Full	Axis I	Lay interview
PAF Personality Assessment Form	Shea, Glass, Pilkonis, Watkins, and Docherty (1987)	Semi and rating scale	Axis II	Clinician or lay interview
PDE/IPDE Personality Disorder Examination	Loranger (1988), WHO (1992a)	Full	Axis II	Lay interview
PDQ/PDQ-R/PDQ-4 Personality Diagnostic Questionnaire, 4th ed.	Hyler (1994)	Self-report	Axis II	Questionnaire
PRIME-MD	Spitzer et al. (1994)	Self-report	Depression, generalized anxiety disorder, somatoform disorders, eating disorders, alcohol abuse	Questionnaire

(continued)

Table 7.2 (continued)

Diagnostic schedule	Source	Format: fully vs. semi-structured interview vs. self-administered questionnaire	Domains assessed	Administration format
PSE Present State Examination	Wing (1961), Wing, Cooper, and Sartorius (1974)	Full	Axis I	Lay interview
SCAN Structured Clinical Assessment for Neuropsychiatric Disorders	Wing et al. (1990)	Semi	Axis I	Clinician or lay interview
SCID/SCID-II Structured Clinical Interview for DSM-IV	Spitzer et al. (1992)	Semi	Axis I Axis II	Clinician interview
SIDP/SIDP-R Structured Interview for DSM-IV Personality Disorders	Pfohl, Stangl, and Zimmerman (1982), Pfohl, Blum, Zimmerman, and Stangl (1989)	Semi	Axis II	Lay interview

[a] Axis 1 includes the following clinical disorders: dementia-related, organic, substance-related, schizophrenia, mood, anxiety, somatoform, factitious, dissociative, sexual/gender, eating, sleep, impulse-control, and adjustment. Axis 2 includes the following personality disorders: paranoid, schizoid, schizotypal, antisocial, borderline, histrionic, narcissistic, avoidant, dependent, obsessive-compulsive, and mental retardation

Table 7.3 Frequently used dimensional scales

Dimensional scales	Source	Format
Anxiety		
BAI Beck Anxiety Inventory	Beck and Steer (1990)	Self-administered
GAD-7 Generalized Anxiety Disorder 7-item	Spitzer, Kroenke, Williams, and Löwe (2006)	Self-administered
HADS Hospital Anxiety and Depression Scale	Zigmond and Snaith (1983)	Self-administered
MAI Manifest Anxiety Scale	Taylor (1953)	Self-administered
PCL PTSD Checklist	Weathers, Litz, Herman, Huska, and Keane (1993) and Blanchard, Jones-Alexander, Buckley, and Forneris (1996)	Self-administered
PHQ-PD Patient Health Questionnaire for Panic Disorder	Spitzer et al. (1994), Wittkampf, Baas, van Weert, Lucassen, and Schene (2011)	Self-administered
STAI State-Trait Anxiety Inventory	Spielberger (1984)	Self-administered
Depression		
BDI Beck Depression Inventory	Beck, Ward, Mendelson, Mock, and Erbaugh (1961)	Self-administered
CES-D Center for Epidemiologic Studies Depression Scale	Radloff (1977)	Self-administered
HDRS/HDI Hamilton Depression Rating Scale/Inventory	Hamilton (1960), Reynolds and Koback (1995)	Self-administered
MADRS Montgomery-Asberg Depression Rating Scale	Montgomery and Asberg (1979)	Self-administered
PHQ-9 Patient Health Questionnaire 9-Item depression module	Kroenke, Spitzer, and Williams (2001)	Self-administered
Personality		
MCMI-III Millon Clinical Multiaxial Inventory	Millon (1983)	Self-administered
MMPI Minnesota Multiphasic Personality Inventory	Dahlstrom, Welsh, and Dahlstrom (1972)	Self-administered
MPI Maudsley Personality Inventory	Eysenk (1947)	Self-administered
MPQ Multidimensional Personality Questionnaire	Tellegen and Waller (1982)	Self-administered
NEO NEO-Personality Inventory	Costa and McCrae (1985)	Self-administered
Social adjustment		
SAS Social Adjustment Scale	Weissman and Bothwell (1976)	Self-administered
K-SAS Katz Social Adjustment Scale	Katz and Lyerly (1963)	Self-administered
Multiple domains		
GHQ General Health Questionnaire	Goldberg (1972)	Self-administered

(continued)

Table 7.3 (continued)

Dimensional scales	Source	Format
HSCL/SCL-90/BSI		Self-administered
Hopkins Symptom Checklist	Parloff, Kelman, and Frank (1954)	
Symptom Checklist	Derogatis, Lipman, Rickels, Uhlenhuth, and Covi (1974)	
Brief Symptom Inventory	Derogatis and Cleary (1977)	
K-6	Kessler et al. (2002)	Self-administered
Kessler 6-Item Psychological Distress Scale		
POMS	McNair, Lorr, and Droppleman (1992)	Self-administered
Profile of Mood States		

Most measures listed as self-administered can also be administered in a fully structured interview format.

validity of community-based instruments (Knappe, Runge, Beesdo, Jacobi, & Wittchen, 2008). In the ECA studies, prevalence rates assigned by psychiatrists, as well as those assigned by the DIS, varied significantly across the metropolitan administration sites (Eaton, Neufield, Chen, & Cai, 2000; Robins, 1985), suggesting that neither assessment technique provides completely reliable and valid estimates of prevalence. Furthermore, the considerable variance in clinician-assigned diagnoses for individuals exhibiting similar symptoms and mental health histories raises additional questions about using clinician diagnoses as the gold standard for validating community-based instruments of mental health assessment (Dew et al., 2005; Eaton et al., 2000; Mirowsky & Ross, 2002; Murphy, 2002).

In response to some of the weaknesses in older, more time-intensive, community-based diagnostic instruments, a newer set of brief psychiatric instruments has been developed (e.g., CIDI-SF, MINI, PRIME-MD). These instruments were generally developed for use in primary care settings and, as such, were designed to be brief, easily understood, and to provide sufficient information to allow primary care physicians to make provisional mental health diagnoses. These instruments have proven to be reasonably reliable (Bakker, Terluin, van Marwijk, van Mechelen, & Stalman, 2009; Gigantesco & Morosini, 2008) and valid when compared to the SCID (de Azevedo Marques & Zuardi, 2008; Sheehan et al., 1998), and may be particularly useful as screening tools (Spitzer, Williams, Kroenke, Hornyak, & McMurray, 2000).

Dimensional Instruments

Although dimensional instruments have been developed to assess a wide variety of impairment types, we focus here on five categories of impairment that are most frequently assessed: anxiety, depression, personality, social adjustment, and multiple distress domains. Anxiety, depression, and social adjustment (the ability to function effectively in social contexts) are generally considered to be state-like or episodic in nature. Anxiety and depression are embodied in several of the primary Axis I disorders recognized by the DSM-IV and also are the most frequently assessed subcomponents on multiple distress instruments. In contrast, personality is typically regarded as an enduring trait and is the central component of the DSM-IV Axis II disorders. Measures in these five domains typically contain a series of items asking respondents to rate the presence-absence, frequency, and/or intensity of psychiatric symptoms during a timeframe of the past 1–2 weeks.

Dimensional instruments, such as those listed in Table 7.3, differ from diagnostic instruments in several important ways. First, many of these instruments assess only one or two areas of symptomatology rather than a broad range of disorders, as found in most diagnostic instruments. Second, rather than defining “caseness” as a dichotomy, these instruments provide an overall score for the area of distress, based on a sum or average of the individual items in the instrument. Subscale scores for particular types of symptoms may also be computed. Symptoms are presumed to reflect quantitative departures from normal functioning. Most published dimensional instruments do, however, provide cutpoints or threshold levels that differentiate between “cases” and “noncases,” where “caseness” is typically defined as a high, clinically significant level of symptomatology, or as showing a high likelihood of meeting psychiatric diagnostic criteria in a formal clinical assessment. These cutpoints, however, may have very low convergence with diagnoses based on clinical interviews and ratings and may vary by the specific population under consideration (McDowell, 2006). In addition, in establishing a cutpoint, it is important to establish whether sensitivity (identification of true cases) and specificity (exclusion of noncases) are equally important. For example, instruments used for depression screening in primary care settings may need to maximize sensitivity at the expense of specificity in order to ensure that all individuals at risk for major depressive disorder are identified for further evaluation even though noncases may be identified as potentially at risk as well. Properties of the instrument are also reflected in positive predictive values (proportion of individuals with a positive test result that are correctly diagnosed) and negative predictive values (proportion of individuals with a negative test result that are correctly diagnosed). Finally, most dimensional instruments measure only current distress—as opposed to past episodes or lifetime rates—limiting the amount and type of information they provide.

Like diagnostic instruments, dimensional instruments have suffered from criticisms concerning reliability and validity. Although the internal consistency of established scales is relatively high, test-retest reliability has been less consistent. Variability in test-retest reliability may in part reflect the fact that some instruments (e.g., General Health Questionnaire [GHQ]) conceptualize and assess symptomatology or distress as acute (atypical, time-discrete symptoms), whereas others (e.g., Hopkins Symptom Checklist [HSCL]) focus on more chronic aspects of the symptomatology (typical and enduring symptoms). As might be expected, instruments assessing chronic symptomatology tend to have higher test-retest coefficients than those assessing episodic or acute symptoms in part because the phenomenon being assessed is inherently more stable over time.

Link and Dohrenwend (1980) found that early versions of dimensional instruments demonstrated very low correspondence with diagnosable disorder, thus raising serious questions about the validity of such instruments as measures of psychiatric disorders. Even more recently developed instruments (e.g., Center for Epidemiologic Studies Depression Scale [CES-D]) may exhibit this weakness, particularly for subgroups of the general population (Callahan & Wolinsky, 1994). However, positive evidence concerning validity has been found for some dimensional scales (e.g., Hopkins Symptom Check List [HSCL], Symptom Check List [SCL-90]), which have relatively stable underlying factor structures that seem to correspond to specific clinical syndromes (Morgan, Wiederman, & Magnus, 1998). However, the high correlations among virtually all dimensional instruments (even when they were designed to assess different domains of psychiatric impairment) raise serious questions about the legitimacy of interpreting the measures as assessing different constructs. Instead, these instruments may all be measuring a more general factor such as nonspecific distress or demoralization (Läge et al., 2011).

As noted in previous sections, the newest developments in the context of dimensional measures are the application of IRT and CAT methods—that is, the PROMIS initiative—to mental health assessment. Comprehensive efforts are currently underway to further develop and psychometrically evaluate PROMIS item banks (Riley et al., 2010), and several investigations have already utilized these item banks to assess multiple domains of mental health in community settings. It seems likely that PROMIS instruments will continue to grow in popularity. Reliability and validity of these IRT-based instruments—

which entail somewhat different psychometric issues than do older instruments based on classical test theory—is discussed in the following section.

Practical Issues in Assessment

We have grouped several practical assessment issues into three broad categories—sampling, instrument selection, and instrument administration—that we discuss here in detail.

Sampling Considerations

Because multiple chapters and texts have been written on sampling considerations in community-based research (e.g., Henry, 1990; Salant & Dillman, 1994), only the most critical issues are mentioned here. The ultimate usefulness of a study assessing prevalence or incidence of mental disorder in the community is contingent on the generalizability of the findings. It is therefore critical to assemble a representative study sample. In sociological and epidemiological studies of mental disorder, samples are typically drawn from the community at large. However, in some circumstances, they may be drawn from new admissions or existing patients at hospitals and clinics. Sources of potential bias in these samples include selection effects, nonresponse, and attrition (Dillman, 2007; Goldstein & Simpson, 1995; Zahner, Chung-Cheng, & Fleming, 1995).

For community samples, selection effects are most likely to occur when a probability sample (one in which every person has an equal or known probability of being selected) is *not* obtained. Certain characteristics of individuals with psychiatric disorders may make them under- or overrepresented on lists from which community samples are often selected. For example, those with moderate-to-severe impairment may be less likely to be living independently, have established credit, have their own telephone, have a record of military service, or be registered voters. Conversely, they may be more likely to have had contact with the social service and criminal justice systems, and to have required medical assistance. Techniques for minimizing sampling bias include establishing (1) well-delineated sampling frames, (2) clear definitions of inclusion-exclusion criteria, and (3) explicit procedures for selection (Henry, 1990).

Among patients admitted to hospitals or clinics, important selection effects have already occurred prior to the researcher's attempts to draw a sample. First, the level of symptom severity in a treated population is likely to be higher than that in the community. This is true despite the fact that many people with diagnosable disorders never seek treatment (Burke & Regier, 1994; Mojtabai et al., 2010). In addition to differences in symptom severity, comorbidity of mental and somatic disorders may further increase the probability that "cases" will be admitted to a hospital setting, known as Berkson's Bias (Berkson, 1946). Finally, important patient demographic characteristics (ethnicity, income, education) are known to be associated with access to health care—African Americans, for example, are less likely to receive services for most types of mental disorder than are European Americans (Gary, 2005; Padgett, Patrick, Burns, & Schlesinger, 1994; U.S. Department of Health and Human Services, 2001). These same demographic and social characteristics are also associated with type of treatment setting; those with higher socioeconomic status (SES) are more likely to be treated in private as opposed to public facilities. All these factors underscore the importance of basing prevalence rates on general rather than treated populations.

A second potential threat to obtaining a representative sample comes from differential rates of survey/interview completion—also called nonresponse bias (Dillman, 2007). In community samples, for example, individuals with some forms of mental disorder may be more likely to refuse to participate in interviews. Furthermore, severe symptom levels may prevent individuals with disorders from responding reliably in interviews or completing self-administered instruments. Efforts to minimize this form of bias should include special efforts to (1) secure participation from individuals who may be at most risk of having disorders, (2) ensure that study instruments can be completed even by individuals with low functioning levels, and (3) gather "objective" information from secondary sources (e.g., interviews with informants, collection of data from billing records, insurance files, and/or medical records). Additionally, statistical techniques that adjust for characteristics of nonresponders have been used successfully in large epidemiological studies such as the National Comorbidity Survey (Kessler et al., 2005).

A similar type of potential bias exists for longitudinal studies in the form of study attrition due to morbidity or mortality. The debilitating effects of mental disorders may make individuals with such disorders—both in community and institutional settings—more likely to drop out of a study due to increased mortality or psychiatric morbidity. Although few proactive options are available for completely eliminating attrition-related bias, it is important to gather and utilize baseline and secondary source information about those individuals lost to follow-up to assess and statistically account for demographic, psychosocial, and psychiatric differences.

Instrument Selection

There are several important issues to consider in selecting an instrument for research. Of key importance is whether the instrument provides reliable and valid assessments of the particular construct(s) of interest. Although identifying potential instruments may be relatively simple, determining whether the instruments have been proven reliable and valid may be more difficult, especially given the profusion of choices currently available (see Rush, First, & Blacker, 2007; Sajatovic & Ramirez, 2003 for an extensive list of measures).

Most basic sociology, psychology, and epidemiology texts describe methods for evaluating the psychometric properties of instruments, including the critical factors for determining whether the instrument is reliable and valid, so only a brief overview is presented here. In establishing reliability, it is important to evaluate (1) whether the items that comprise the measure are internally consistent (i.e., measure a single underlying construct), (2) whether an instrument provides similar symptom estimates or diagnoses for a person across reasonably short time spans and in different formats (e.g., clinician interview, lay interview, self-report). The most commonly used method of establishing the internal consistency of a measure is Cronbach's alpha (Cronbach, 1951), which provides a score ranging from 0.00 to 1.00, indicating the degree of "interrelatedness" among items included in the analysis; higher scores indicate better internal consistency. The test-retest method—in which the same instrument is administered to the same individuals on separate occasions—is often used to determine whether impairment or diagnosis is consistently assessed across time. Some reliability assessment issues (e.g., internal consistency) that are concerns for measures developed using classical test theory are not as relevant for newer instruments developed using IRT techniques. If, for example, a group of respondents receives different numbers of items of different content based on a CAT-administered depression measure, traditional measures of internal consistency are not easily applied. However, the question of whether repeated assessments provide similar estimates of depression for a given individual across time is still important and continues to be evaluated for PROMIS item banks. Early results for the reliability of these banks are very strong (Cella et al., 2010; Reeve et al., 2007).

Although there are several types of validity that can be evaluated, perhaps the two most relevant types are criterion and construct validity (McDowell, 2006). Evidence of criterion validity can be established by assessing the degree of correspondence between scores obtained with the instrument (e.g., a diagnosis of major depression) and some observable phenomenon (e.g., eating and sleeping disturbances), or between scores on two or more instruments intended to measure the same condition (e.g., Beck Depression Inventory [BDI] and CES-D). Construct validity can be established by showing that hypothesized relationships between scores on the measure and specific predictors or outcomes are empirically supported and/or that the measure does not correlate as highly with variables hypothesized to represent different constructs (Nunnally & Bernstein, 1994). Construct validity can therefore be established only in the context of a model or a set of well-defined theoretical relationships among variables. For example, a researcher assessing dysthymia using a newly created measure could generate a set of hypotheses about psychosocial factors that should be associated with dysthymia. If these predicted relationships are empirically established, the researcher has evidence that the underlying construct of dysthymia is indeed being assessed. Issues of validity are particularly important for the newer dimensional instruments based on IRT and CAT methods. Key concerns include whether (a) the items in a particular item bank are truly "graded"—that is, form a Guttman-like scale[1]; (b) the respondents' scores are associated with other important observable outcomes (e.g., health services utilization), or other established measures of similar constructs (e.g., depression); (c) items function similarly across subgroups of the population (e.g., by age, gender, ethnicity). To date, items banks have demonstrated strong gradations among items (items that did not show a consistently graded effect were eliminated), reasonable associations with other measures of similar constructs, and only moderate differences in functioning across population subgroups (Cella et al., 2010; Hays et al., 2000; Reeve et al., 2007; Thomas, 2010).

A second important issue is to determine whether a diagnostic instrument, dimensional instrument, or some combination of the two techniques should be used. A primary consideration should be the overall goal of the project in terms of how the data will be used. For example, if the goal is to describe differences between cases and noncases, or to isolate risk factors for a particular disorder, a diagnostic instrument would be appropriate. If the goal is to assess the general degree of impairment, or to describe the comorbidity and intensity of psychiatric dysfunction, a dimensional instrument would be more suitable. Characteristics of the population under examination should also be considered. The prevalence and incidence of many psychiatric disorders in the general population are low (Kessler et al., 2005). Thus, studies using strict diagnostic criteria to define cases of a disorder may have difficulty generating enough cases to examine in relation to other variables. In addition, a combined, or multimethods, approach might draw on the relative strengths of diagnostic and dimensional instruments and maximize the quality of information gathered (First & Wakefield, 2010; Stein et al., 2010; Üstün & Tien, 1995). An example would be the use of both types of instruments in a sequential process first to screen and then diagnose individuals who meet initial criteria. An example would be using the PHQ-9 to screen for depression as part of a primary care physician's office intake procedures, followed by administration of the PRIME MD to diagnose depression among those who score above a certain threshold on the PHQ-9 screen. The forthcoming DSM-5 and IDC-11 both propose combined use of dimensional and diagnostic instruments in this manner.

A third issue to consider is the appropriateness of the instrument for the study population. Most psychiatric instruments are based on middle class, Western European/North American assumptions about mental health and illness. For example, many of the classic symptoms of schizophrenia (delusions, hallucinations, disorganized speech) are part of the religious ceremonies or daily spiritual experiences of many cultural groups (Eaton, 1980). Conversely, it appears that some mental disorders—for example, *ataques de nervios* among Puerto Ricans and *koro* among Singaporeans—are recognized only among

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[1] Items are arranged hierarchically in Guttman scales such that agreement with a more extreme item (e.g., "I am sad all the time") automatically implies that the respondent would have agreed with all less extreme items (e.g., "I sometimes feel unhappy.") This type of hierarchical order among items measuring a particular construct (e.g., depression) is critically important for IRT-based scale construction.

non-European cultures (Crozier, 2011; Guarnaccia, Good, & Kleinman, 1990; Keough, Timpano, & Schmidt, 2009). Culture-bound assumptions pervade both the DSM and epidemiological instruments based on the DSM categories. Consequently, it is important to determine whether the instrument has been used successfully with particular cultural/ethnic groups included in the sample. Other demographic, medical status, and psychosocial characteristics (e.g., age, education, language skills, motivation for participating in the study) of the population are also important to consider in this regard. For example, there is concern that some instruments (e.g., the Beck Depression Inventory [BDI]) may not be appropriate for less-educated populations due to the relatively complex response options which require choosing among different statements such as “I do not feel I am worthless”; “I don’t consider myself as worthwhile and useful as I used to”; “I feel more worthless as compared to other people”; “I feel utterly worthless.” Other instruments—for example, those that include a relatively high proportion of somatic symptom items—may be inappropriate for physically ill groups in whom such symptoms may reflect medical status rather than emotional distress (Dew, 1998).

Instrument Administration

Depending on the study instrument, researchers may have several choices about how to gather information from respondents. An initial consideration should be the feasibility of using a particular instrument with the population of interest. Feasibility issues include the burden to potential respondents and the financial cost per subject of gathering the information. Community respondents may be reluctant to complete a lengthy interview or survey, because of both the time involved and perceptions that they will be asked to give confidential or sensitive information. Treated populations may have had more experience with the types of questions asked in mental health instruments, but, depending on the nature or severity of their illnesses may also have more difficulty in completing certain types of assessments such as self-administered questionnaires. Some reluctance to participate may be addressed with careful explanation of the study procedures and how the data will be used, assurances of anonymity, and with monetary or other types of incentives offered to participants. Incentives will not only increase participation rates but will also substantially increase the cost per participant of gathering data (Dew, 1993; Dillman, 2007; Switzer, Wisniewski, Belle, Dew, & Schultz, 1999).

Another important cost consideration in determining feasibility is the cost of the assessment modality and of the services of the person who will administer the assessment. Clinician interviewers are most costly, followed by trained lay interviewers (training periods for lay interviewers may range from a few days to a few weeks), research-assistant-administered questionnaires/interviews, and self-administered questionnaires or computer-based assessments. If it is necessary to use interviewers with some clinical experience to gather the data, it may be most feasible to employ individuals with master’s level psychology, social work, or other social/behavioral science backgrounds.

In terms of the format of data gathering, in-person interviews are generally the most costly mode of assessment, followed by telephone interviews and self-administered, paper-and-pencil or computer-based questionnaires. Although self-report forms have been developed for most of the dimensional instruments (e.g., BDI, GHQ), and all of the PROMIS dimensional instruments are available in computer adaptive modes, these administration methods are limited by the respondent’s ability to read and understand questions, and are also less amenable to moving respondents through complicated question sequences. Telephone interviews may provide a middle ground in terms of cost and quality of information gathered. They also have been shown to yield highly reliable mental health data if the interviewers are carefully trained and supervised (Dillman, 2007; McDowell, 2006). The use of computers to aid in recording responses to both interviews and self-administered questionnaires has also become more prevalent. Self-administered computerized versions of several instruments (e.g., DIS, PSE, BDI, Clinical Interview Schedule [CIS], Health Assessment Questionnaire [HAQ]) have been developed and evaluated and seem to provide a reliable, valid, and highly efficient means of assessing disorder/impairment (Dignon, 1996; Erdman et al., 1992; Kobak, Reynolds, & Greist, 1993; Lewis, 1994; Steer, Rissmiller, Ranieri, & Beck, 1994; Thomicroft, 1992; for a review, see Kobak, Greist, Jefferson, & Katzelnick, 1996). However, it is important to recognize the possibility that respondents' access to and ability to use a computer may vary.

Although each method of administration has its own sources of bias, a potential source of bias common to all forms of assessment is the motivation of the respondent for participating in the assessment. Individuals whose psychiatric status is linked to social and monetary benefits (e.g., social services, housing, public assistance) may be motivated to over-report symptomatology to ensure that these benefits are not withdrawn. Conversely, individuals who believe they might be stigmatized by family, friends, and work or educational colleagues may be motivated to underreport symptoms.

Even when they are motivated to report symptoms accurately, respondents may have difficulty recalling and accurately reporting information. Recall bias may especially threaten the validity of instruments assessing lifetime prevalence of psychiatric disorders; respondents may simply not remember the range of symptoms or duration of episodes that occurred many years in the past (Patten et al., 2011). If this bias is assumed to be distributed randomly across population groups, it will contribute to overall measurement error and decrease the statistical power to detect differences among groups. If the bias is systematic (e.g., treated groups may be more attuned to current and past symptoms than nontreated groups), then artificial associations may be produced with risk factors or with outcomes. Because of the serious threat that this form of bias poses to the validity of instruments attempting to document psychiatric history, several techniques, such as the Life Chart Interview have been developed to improve the accuracy of autobiographical recall (Batelaan et al., 2010; Eaton et al., 2008).

Another source of bias may be the order or format in which questions are asked. For example, an instrument that places general questions about daily functioning after a specific set of symptom-related questions may produce artificially low functioning estimates because the impairment has been made salient by the symptom questions. Additionally, extensive research on survey and interview techniques indicates that item wording, structure, and response categories all affect how participants respond to particular items (DeVellis, 2003; Dillman, 2007; Schwarz, Hippler, Deutsch, & Strack, 1985). When instruments are administered in an interview rather than a self-report format, there is the additional potential for interviewer bias (Davis, Couper, Janz, Caldwell, & Resnicow, 2010; Dew, 1993; Dillman, 2007). Interviewer effects are most dangerous when interviewers are not blinded to the study hypotheses but can also occur anytime interviewers selectively probe for additional information on particular items or with particular participants, or give nonverbal expressions of approval or disapproval toward participants.

Finally, even if all these sources of potential bias are eliminated, there is still the possibility that the measure itself will provide biased estimates of disorder or symptom severity scores because of misclassification or measurement error. As with other forms of error, random misclassification reduces statistical power. If misclassification is systematic, however, examination of group differences may produce misleading conclusions. For example, if, despite experiencing similar depression levels, Group A (e.g., women) finds it easier to endorse (or acquiesce to) certain symptoms (e.g., crying when feeling down) than Group B (e.g., men), the instrument will have produced artificial group differences based on differential item functioning. This is a concern with all instruments, but the equivalency of item functioning across population subgroups is especially important for the PROMIS item banks where a greatly reduced set of items is being used to assess mental health domains (Teresi et al., 2009). This is because the differential functioning of a single item across two groups (e.g., men and women, elderly and young) can have more dramatic effects on the estimation of mental health status because fewer items are used to produce the estimate (Cella et al., 2007).

To avoid biases that might occur as a result of item wording and format, as well as biases introduced by the interviewer, it is critical to pilot-test instruments for readability and flow, and to observe and evaluate interviewers. In conjunction with pilot testing and administration of the measure for "real" data collection purposes, it is important to establish and update question-by-question instructions for interviewers, to conduct ongoing interviewer training and/or refreshers, and periodically to have interviewers observe and critique each other.

Although several steps can be taken to reduce biases that come from the interviewer or respondent, it is more difficult to address biases inherent in the instrument itself. Simply identifying misclassification bias may not be possible in the context of a single research project unless several measures of the same disorder are included and compared. Item and factor analysis within sample subgroups, and group comparisons using multiple measures of the same construct, or multiple sources of data may be the primary means of combating misclassification.

Controversies in Mental Health Assessment

As opposed to the practical issues covered in the previous section, this section focuses on the more philosophical issues in mental health assessment. The tension between reliability and validity and the context within which mental health issues are studied are discussed.

Maximizing Reliability at the Expense of Validity?

For measures developed using classical test theory methods, a measure's ability to perform consistently (reliability), and to measure the targeted underlying construct (validity), are both highly desirable and necessary elements of the assessment process. First, reliability is a necessary but not sufficient condition for establishing validity (i.e., an unreliable measure can never be valid). Second, validity is neither a necessary nor a sufficient condition for establishing reliability (i.e., a measure's reliability is independent of its validity).

The history of the DSM, and of community-based instruments founded on the DSM definitions (e.g., CIDI, DIS, MINI), is one of increasing specificity in nomenclature in diagnostic criteria. The increasing specificity and detail of these measures and continued refinement of items and assessment techniques has led to great improvements in the reliability of clinical research and community mental health assessment. However, this improvement should not be interpreted as an indication that the measures are simultaneously becoming increasingly valid. Although it is true that community assessment techniques must produce consistent results if they are to be claimed as valid, it is also true that a measure may be 100% reliable and 0% valid.

Thus, while community-based measures developed using classical test theory have become increasingly reliable, there are enduring questions about their validity (Eaton et al., 2000; Knappe et al., 2008). These questions stem in part from the lack of correspondence between diagnoses assigned to patients by community assessments and those assigned by expert clinicians; the severity of this problem varies according to the type of disorder being diagnosed. Although it is not clear if either assessment technique should be used as the "gold standard," the lack of agreement between the two assessment modalities raises serious validity concerns. Because the DSM and community-based diagnostic instruments based on it rely on conservative criteria for diagnosis—typically, observable behavioral criteria—community-based measures may tend to underestimate the prevalence of some disorders. There are additional concerns about the reliability of disorder diagnoses across time—recent evidence suggests that there may be significant misclassification of patients when the longer-term stability of diagnoses is examined (Bromet et al., 2011). Some of these concerns may be alleviated with the introduction of the DSM-5, which incorporates dimensional instruments developed using modern test development and administration methods including item response theory and computer adaptive testing. Although consistency of response over time and the association of an IRT-based measure with other important outcomes continue to be important, the known characteristics of each item may reduce other psychometric concerns. For example, the internal consistency among a set of items is no longer a concern when using IRT and CAT methods because items are not being averaged or summed to form a composite score and, in theory, a person's response to a particular item is a direct reflection of their position on the underlying construct (e.g., depression), reducing concerns about the link between the observed response to the item and the underlying concept of depression (construct validity).

Assessment Context

A final critical aspect of mental health measurement is the broader context within which such measures are created. A society's beliefs about the causes of mental disorders and their likely solutions will be reflected in the instruments used to assess mental health. More broadly, the particular social arrangements—including the distributions of power, status, and resources—will all influence the creation, selection, and administration of instruments (Alarcón et al., 2009).

Numerous examples of the influence of social and political context on the definition and assessment of mental disorders can be found simply by charting the flow of diagnostic categories into and out of the DSM. The creation and addition of posttraumatic stress disorder (PTSD) to the DSM was a direct result of concerted post-Vietnam War lobbying efforts by American military veterans. The elimination of homosexuality as a diagnostic category was a result of lobbying by gay and lesbian organizations, changes in prevailing societal attitudes, and the greater willingness on the part of the medical community to acknowledge the lack of empirical evidence that homosexuality reflects psychopathology. The fact that posttraumatic symptoms and homosexuality have been a consistent part of human experience while their status as mental disorders has changed is evidence of the subjective and transmutable nature of psychiatric categorization. These same societal forces have, at various times, defined broad population groups (e.g., women, ethnic minorities) as being "by nature" more vulnerable to psychiatric disorders. The emphasis on genetic or organic factors as a source of mental disorders has demonstrated the power of such explanations for some disorders (e.g., Alzheimer's disease), and their failure for others (e.g., major depression). The increased specificity of biologic and genetic explanations—by helping to define both what biology can and cannot explain—has actually fostered the growth of sociological and epidemiological explanations for and investigations of mental health issues. The disciplines of mental health currently find themselves in a social context that encourages interdisciplinary efforts to assess and weigh the importance of physical, psychological, social, and environmental factors as precursors of mental disorder.

Future Directions

Finally, there are at least three growing movements in mental health assessment that are worth noting: interdisciplinary collaboration, multimethods approaches, and increasing sensitivity to cultural context. First, as mentioned earlier, this is a time of increasing interdisciplinary collaboration that has the potential to produce more complex and multivariate examinations of the predictors and outcomes of psychiatric disorders. Sociologists have already contributed valuable insights to the study of mental health issues. Sociology offers a unique and valuable perspective to this process, including its focus on macro-level historical, political, and economic forces on the definition and assessment of mental disorder that might otherwise be absent. Sociological models of mental health should continue to expand to incorporate biological variables in order to achieve a fully integrated perspective of the interactions between personal characteristics and broader societal forces. There is increasing evidence that these biological models—particularly those based on neuropsychiatry—will be increasingly important as our ability to more minutely examine brain function improves (Ciurli, Formisano, Bivona, Cantagallo, & Angelelli, 2011; Vaishnavi, Rao, & Fann, 2009).

Second, there is increasing application of multimethods and/or multisource approaches to the assessment of community mental health and disorder (Dowrick et al., 2009; Linscott & van Os, 2010). The current efforts by the developers of the DSM-5 to use dimensional and diagnostic instruments symbiotically to overcome the weaknesses of each are one example of such a multimethods approach to the evaluation of mental health status. One possible application of this approach would be the sequential use of instruments—screening using a relatively inexpensive dimensional self-report instrument (e.g., the PERI or PROMIS-based items), and further evaluation of subsamples with severe symptomatology using a diagnostic instrument (e.g., the SCID). In this manner, the ability of dimensional instruments to provide reliable estimates of general disorder in the population could be combined with the ability of diagnostic instruments to provide finer-grained estimations of disorder near the diagnostic cutpoint. There are also a variety of newer diary-type assessments that allow for the examination of mental health sequentially and longitudinally that address some of the problems with single-point assessments (Merz & Roesch, 2011; Yanos, West, & Smith, 2010). In addition to the use of more than one type of instrument, the use of multiple sources of data (e.g., medical records or informants) improves ascertainment of the mental disorder (Dowrick et al.).

Finally, there is increasing attention to the fact that culture plays a critical role both in the development of individuals and in the way that psychological distress may be manifested differently across cultures (Alarcón et al., 2009; Fearnley, 2007; U.S. Department of Health and Human Services, 2001). The DSM-IV currently contains a "Glossary of Culture-Bound Syndromes," described as clusters of symptoms much more common in some cultures than others. We have already described *ataque de nervios* that occurs primarily in Latino patients (Guarnaccia et al., 1990). A culture-bound syndrome from Japan is *taijin kyofusho*, described as an intense fear that one's body or bodily functions give offense to others (U.S. Department of Health and Human Services, 2001). There may also be differences in the way that individuals from different cultures communicate symptoms. For example, words such as "depressed" and "anxious" are absent from the languages of some American Indians and Alaska Natives (Manson, Shore, & Bloom, 1985). The DSM-5 will provide increased focus on the issues of culture in shaping how symptoms are presented, expressed, and communicated in the context of mental disorders. Similarly, the developers of PROMIS are engaged in evaluating the psychometric properties of PROMIS item banks across multiple population subgroups. In these attempts to ensure that instruments designed to assess mental health function equivalently across cultures, the role of sociologists who understand cultural variations may be especially critical.

In summary, there has been dramatic progress in our ability to assess community mental health and disorder during the past 150 years. Technical advances, such as the development of improved sampling methods, more reliable instruments, and more powerful analytical tools have been accompanied by the emergence of an increasingly complex interdisciplinary paradigm to explain mental disorder. Sociologists and epidemiologists, as relative newcomers to the field of mental health assessment, have provided valuable insights not only about how to conduct broad-based community studies but also about the critical effects of environmental and social forces on mental health. The future seems to hold continued interdisciplinary collaboration, further development of instruments combining the strengths of diagnostic and dimensional instruments and/or use of multimethods techniques, increasing application of computer technology to mental health assessment, and increasing focus on the cultural context of mental health.

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Chapter 8

Analyzing Associations Between Mental Health and Social Circumstances

John Mirowsky

Abbreviations

EXP	Exponent
LN	Natural logarithm
SQRT	Square root
VIF	Variance Inflation Factor

Statistical Explanation and Vanishing Association

Comparison is a fundamental procedure of sociological research. If sociologists hear someone say, “Workers are anxious,” they immediately begin to wonder, “Compared to whom? The unemployed? Housewives? Retirees? Which workers are we talking about? Under what circumstances? Are we comparing workers to others in general? To others from similar backgrounds? To others like themselves? In what ways?”

Quantitative sociological research begins by demonstrating the existence of an association or correlation between two variables in a defined population. That association takes the form of a distinct difference between groups or across social strata in the amount of a measured attribute. The researcher may begin by showing, for example, that adults who as children experienced parental divorce feel depressed more often than those whose parents stayed together, or that young adults feel anxious and angry more often than middle aged or older adults, or that the frequency of malaise drops more rapidly in early adulthood for men than for women. The researcher first demonstrates that an association really exists and is not a ghost of random juxtaposition or a mirage of biased measurement. Convinced of that, the researcher then tries to explain statistically why the association exists.

Explaining an association means demonstrating the conditions under which it no longer exists. If an association vanishes under specific conditions, then it is the presence (or absence) of those conditions that accounts for the association. The sociologist’s game, then, has two goals: show an association

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J. Mirowsky (✉)
Department of Sociology, Population Research Center, The University of Texas
at Austin, 1 University Station A1700, Austin, TX 78712-0118, USA
e-mail: mirowsky@prc.utexas.edu

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exists, then find the conditions under which it vanishes (Cole, 1972; Davis, 1985; Susser, 1973). This paper describes strategies for achieving the second goal—strategies for explaining the association of mental or emotional well-being with aspects of circumstance, identity, belief, or personal history.

Data analysts have two basic methods for demonstrating the conditions under which an association vanishes (Wheaton, 1985), called progressive adjustment and interaction modeling. Progressive adjustment looks for mediators of the association. A mediator is something that results from one of the two associated variables and causes the other, forming a bridge between them. For example, young adults are more anxious than older adults. Economic problems increase anxiety, and young adults have more frequent difficulty paying bills and buying necessities. As a result, economic problems mediate some of the relationship between age and anxiety.

A moderator regulates the size and direction of the association between two variables. For example, young children in the home increase the depression of women if the father avoids child care, but not if he helps her with the care and support. As a result, the father's child care and support moderates the association among women between having young children and feeling depressed. Moderators can be external or internal. External moderators apply to everyone whereas internal moderators only apply to people in a specific situation. For example, the effect of marriage on depression depends on a person's level of education and on the quality of the marriage. Education acts as an external moderator, because everyone has some level of education whether married or not. The quality of the marriage acts as an internal moderator, because the quality of the relationship applies only to those who are married.

The rest of this chapter describes and illustrates both progressive adjustment to identify the mediators of an association and interaction modeling to find the external and internal moderators of an association. It ends with a description of structural amplification, in which a mediator also moderates the association.

Progressive Adjustment

Progressive adjustment constitutes the single most valuable procedure for explaining associations. The technique is to sociological research what anatomical dissection is to biological research. Progressive adjustment peels away the layered components of an association. Contemporary researchers use sophisticated statistical regression programs for progressive adjustment. However, the procedure predates modern statistical techniques (Cole, 1972; Susser, 1973). The idea behind it is simple: show that an association between two variables exists, propose a hypothetical mediator of the association, and show that statistically holding the mediator constant reduces or eliminates the observed association.

Theoretical Groundwork: Specifying the Association, Explanation, and Model

Progressive adjustment begins by stating a theoretical explanation for an observed or hypothesized association. Suppose, for example, a researcher has demonstrated that US adults whose parents separated or divorced in their childhood feel depressed more frequently than others. What explains this association? The analysis begins by stating a theoretical explanation that describes a sequence of events or circumstances that might link the hypothetical cause to its hypothetical consequence. What effect of that parental breakup years ago may have had lasting depressing consequences? Low educational attainment seems like a possibility. We know that the frequency of depression increases in segments of the population with progressively lower levels of education. Many of education's consequences protect and reward the spirit: employment, prestige, prosperity, security, refinement, proficiency. We know that parental breakup reduces the average educational attainment of children. Emotional turmoil disrupts studies. Economic abandonment, in whole or in part, depletes the household's educational resources. Perhaps lower educational attainment and its consequences explain the higher frequency of depression among persons exposed to a childhood parental divorce.

After stating a theoretical explanation, the analyst looks for measurable variables that will allow a corresponding statistical explanation. Figure 8.1 illustrates a hypothetical model corresponding to the argument that low educational attainment and its consequences for employment and economic well-being explains why depression is greater among adults who experienced childhood parental divorce. Two bold arrows running from cause to mediators to consequence illustrate the hypothetical causal links. The measures of the hypothetical mediators include the person's total years of education, a history of being unemployed, current unemployment, current inability to work, a history of not having the money to pay bills or buy household necessities, and recent trouble paying bills or buying necessities. These measures represent the ideas expressed in the theoretical explanation.

Thin arrows in Fig. 8.1 illustrate an alternative hypothesis of spurious (misleading) association between childhood parental divorce and adult depression. A precursor is a characteristic or condition that existed before the hypothetical cause came to be. A precursor may have produced both the hypothetical cause and its hypothetical consequence, creating a "spurious" association between them, as in the following hypothetical example. Suppose that parental divorce years ago and elevated depression today both result from a common cause. Perhaps that antecedent of the divorce, and not the divorce itself, causes subsequent depression. Something might have strained the parents' relationship, or weakened its resistance to other social stresses. For example, parents with low or disadvantaged social status may divorce more often than other parents, and also may give their children fewer of the advantages needed to find success, security, and happiness later in life. If so, then the parents' low or disadvantaged status might produce both their divorce and their child's later adult depression, accounting for the apparent association between them.

After stating a theoretical explanation and finding corresponding measures the analyst proceeds to the statistical explanation. The idea behind statistical explanation is simple. If a mediator explains an association, then holding that mediator constant reduces or eliminates the association. In the example, if education alone mediates the whole association between adulthood depression and childhood parental divorce, then holding education constant will eliminate the association. The statistical analysis compares persons who attained the same level of education but had different childhood experiences. If there is no difference in their frequency of depression, then lower education explains the greater depression of adults whose parents divorced in childhood.

The variants of such matched comparison go by several names. Researchers speak of the association "adjusting for education," "holding education constant," or "net of education." Contemporary researchers rarely would actually match sets of individuals with the same education but different childhood experiences. Today most sociologists use some form of multiple regression to achieve the statistical equivalent of matching. Multiple regression gives the researcher far more flexibility in testing a variety of possible explanations simultaneously and efficiently. Imagine the difficulty of having to match each person from a divorced childhood home to someone else of the same age, education, sex, race, income, and employment status from an intact childhood home.

The practical difficulties of matching grow geometrically with the number of variables considered. Multiple regression uses the variation and covariation within a sample to achieve the same end. The analytic goal remains the same: estimate the association, and then statistically adjust for variables representing hypothetical explanations. The association "vanishes" if the adjusted estimate becomes statistically insignificantly different from zero (the value indicative of no association in regression analysis). In other words, the adjusted association vanishes when average levels of the outcome (e.g., depression) no longer differ significantly across levels of the hypothetical cause under investigation (e.g., parental divorce). When that occurs, the adjusted variables are said to statistically explain the association under study (e.g., between parental divorce and adulthood depression).

Social scientists typically need to consider many possibilities at once when trying to explain an association. The critical link might lie hidden in a long sequence of antecedents and consequences that then

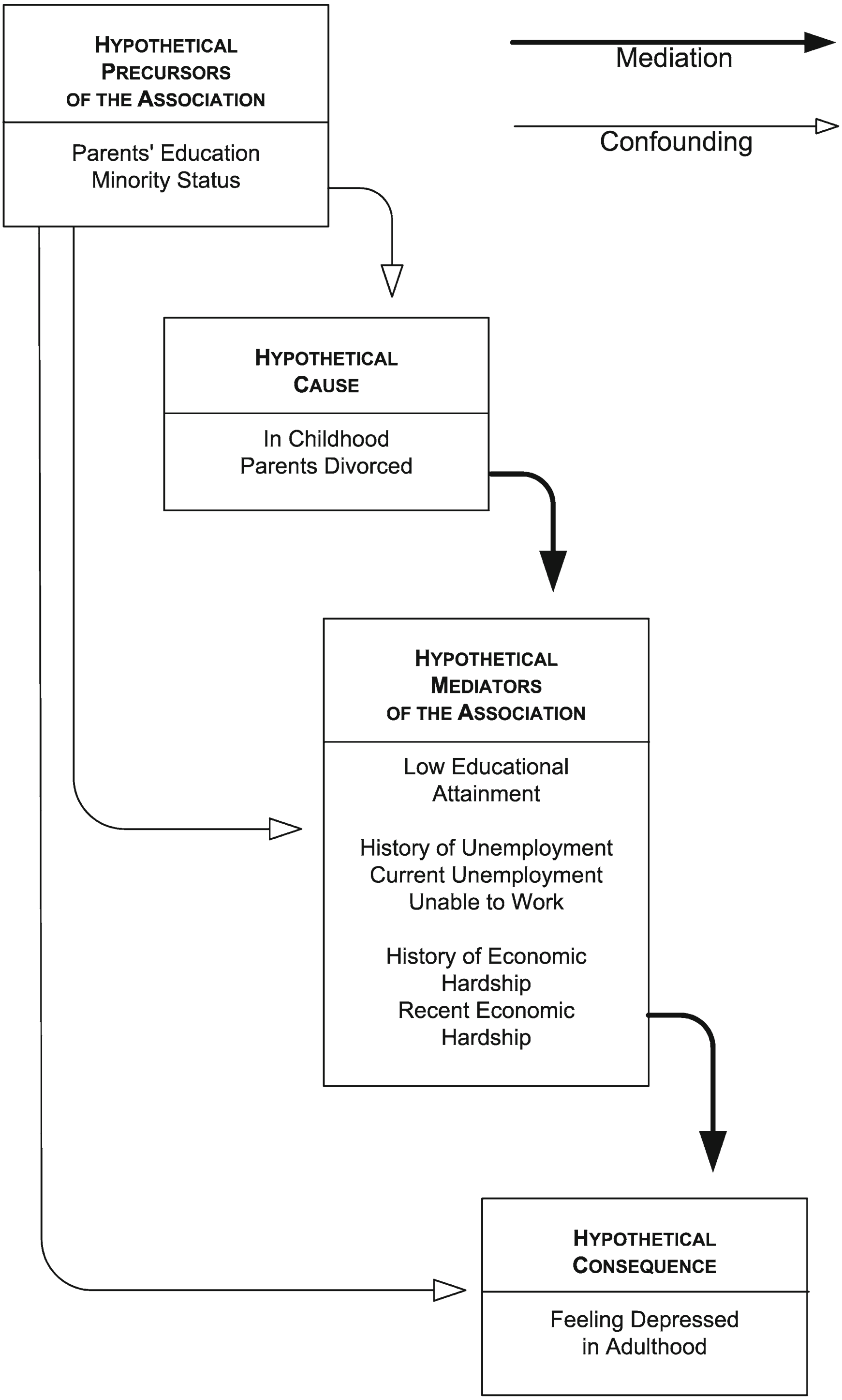


Fig. 8.1 Hypothetical model explaining the correlation between the divorce of one's parents in childhood and feeling depressed in adulthood

generated subsequent conditions with their own consequences. More commonly, the initial event might have several consequences, each generating trains of consequences. For example, the explanation of the original association may lie in the whole web of events and circumstances. To explain an association, the analyst progressively adjusts for variables that represent the steps in a hypothetical sequence linking exposure to outcome (Cole, 1972; Davis, 1985; Susser, 1973). An example illustrates the procedure.

Step 1: Estimating the Total Association

After stating the hypothetical explanation, the first step of a progressive adjustment estimates the total association between the cause and the consequence. Table 8.1 shows a progressive adjustment of the association between adult depression and parental divorce in one's childhood. Model 1 estimates the total association. In this study, depression is measured by asking seven questions such as, "How many days in the past week have you felt sad? How many days did you feel unable to get going?" The depression index takes the arithmetic mean of the seven responses. Thus, it measures the average number of days per symptom during the past week. The variable in Table 8.1 labeled, "Parents divorced" takes a score of 1 for persons who say that in their childhood their parents either divorced or separated (hereafter referred to as divorced). It takes a score of 0 for others.

A *bivariate regression* describes the total association between two variables. Equation 8.1 represents the bivariate regression of depression (D) on parental divorce (PDiv). Regression intercepts such as b_0 represent the average level of the outcome predicted for persons with scores of 0 on all the independent variables. Thus, in Eq. 8.1, b_0 represents the average frequency of depression among people whose parents did not divorce (predicted when $P\text{Div}=0$). In Model 1 of Table 8.1, the estimated intercept indicates that adults whose parents did not divorce report an average weekly frequency of 0.889 days per symptom (because $0.889+0.236\times 0=0.889$).

$$\hat{D} = b_0 + b_1 \text{Div} \tag{8.1}$$

Unstandardized regression coefficients measure the difference in the predicted outcome given a unit increase in the independent variable. Thus, b_1 in Eq. 8.1 describes the average difference in depression between those whose parents divorced and those whose parents did not (The regression coefficient associated with an independent variable is called a slope—in this case, the slope of depression with respect to parental divorce). The estimate in row 1 of Table 8.1 indicates that adults whose parents divorced ($P\text{Div}=1$) report an average of 0.236 more days per symptom than the reference group, for a total of 1.125 (because $0.889+0.236\times 1=1.125$). The statistical significance test indicates that there is less than one chance in a 1,000 that a random sample would show a difference this large if it was drawn from a population with no difference in depression between the two groups.

Some arithmetic suggests that the difference may be substantively significant as well. The adults who say their parents divorced report about 26.5% greater frequency of the symptoms than others (because $(0.236/0.889)\times 100=26.5$). Put another way, they would have the symptoms of depression 21.0% less often if they had them at the same frequency as others (because $(0.236/1.125)\times 100=21.0$).

Step 2: Adjusting for Precursors

The second step of progressive adjustment controls for precursors of the observed association, which may act as confounders producing spurious association. A *multiple regression* describes the association holding constant one or more other variables. Equation 8.2 represents the multiple regression

Table 8.1 *Progressive adjustment*: Differences in depression[a] between persons who experienced parental divorce or separation in childhood and others, adjusting progressively for socioeconomic origins and consequences of the breakup[b]

Row	Independent	Model 1	Model 2	Model 3a	Model 3b	Model 3c
1	Parents divorced (/no)	0.236*** (3.398)	0.244*** (3.496)	0.170* (2.455)	0.149* (2.274)	0.066 (1.039)
2	Minority (/other)		0.156* (2.262)	0.157* (2.318)	0.050 (.774)	–0.025 (–.405)
3	Mother's education – 12[c]		–0.012 (–1.152)	0.003 (0.277)	0.007 (0.661)	0.003 (0.297)
4	Father's education – 12[c]		–0.021* (–2.278)	–0.008 (–0.832)	–0.007 (–0.811)	–0.009 (–1.036)
5	Person's education – 12[c]			–0.090*** (–8.768)	–0.069*** (–7.055)	–0.047*** (–4.871)
6	Unable to work				1.921*** (13.907)	1.657*** (12.283)
7	History of long[d] unemployment				0.557*** (8.202)	0.374*** (5.570)
8	Current unemployment				0.569*** (3.802)	0.392** (2.702)
9	Economic hardship ever[e]					0.105* (12.017)
10	Recent economic hardship[e]					0.470*** (12.017)
11	Intercept	0.889***	0.837***	0.995***	0.827***	0.611***

*$p<0.050$; **$p<0.010$; ***$p<0.001$; one-tailed t-test

[a] Depression is the weekly number of days per symptom, for seven symptoms

[b] Unstandardized coefficients with t-values in parentheses below. Data are from a 1995 US survey of 2,539 adults ages 18 through 95 (National Institute on Aging, 1R01-AG12393; John Mirowsky P.I., Catherine E. Ross Co-P.I.)

[c] Education is scored as the person's actual years of formal education minus 12 years

[d] Any period of 6 months or more during adulthood

[e] Ever contrasts people with at least one period in adulthood of difficulty paying bills or buying food, etc., with those who have not. Recent ranges from 0 = no difficulties in the past 12 months, to 1 = not very often, 2 = fairly often, and 3 = very often

controlling for mother's education (−12), father's education (−12), and minority status (scored 1 for persons who say they are Black, Hispanic, Native American, or Asian and 0 for others). Subtracting a constant from all values of a variable is called "centering." Education centered on 12 measures the number of years short of or beyond a 12th-grade education. Centering makes the intercept of a regression equation more interpretable, because it represents the predicted outcome when all of the independent variables are scored zero (Aiken & West, 1991). In Eq. 8.2, b_0 represents the predicted average frequency of depression among non-minorities whose parents both had 12 years of education and did not divorce. In Model 2 of Table 8.1, that prediction is a mean of 0.837 days per week for the seven symptoms of depression.

$$\hat{D} = b_0 + b_1 P\text{Div} + b_2 M + b_3 (E_M - 12) + b_4 (E_F - 12) \tag{8.2}$$

In Eq. 8.2, the regression coefficient b_1 now estimates the average difference in depression between married people and others who are similar in terms of minority status and parental education. Model 2 of Table 8.1 adjusts the association between parental divorce and adult depression for these three measures of childhood family status. The estimated coefficients for the family status variables indicate that members of minority groups feel depressed more often than others and that persons whose parents had higher levels of education feel depressed less often (Readers should not make too much of the fact that father's education appears more important than mother's, because they correlate highly. In some samples the mother's education appears more important).

The association between parental breakup and depression, measured by b_1, does not vanish with adjustment for the three measures of childhood family status. In fact, the adjustment produces no appreciable change in the estimated association or its statistical significance. The coefficient in row 1 remains essentially unchanged in Model 2 compared to Model 1. The increase from 0.244 to 0.236 is a difference of only 0.008. That tiny difference lies well within the range of random noise in the estimate, as indicated by its "standard error," which is the standard deviation of the estimate across a large number of re-samples from the same population. A coefficient's standard error equals its value divided by its t-value, which is $0.236/3.398 = 0.096$ for the unadjusted estimate and $0.244/3.496 = 0.070$ for the adjusted one. Thus, the difference in the estimate made by the adjustment is only about a tenth of a standard error of either estimate. Model 2 shows no support for the hypothesis that the association between depression and parental divorce is spurious due to childhood family status. Comparing Model 2 with Model 1 implies that if we matched on minority status and parental education, the difference in depression associated with parental divorce would remain essentially unchanged.

Step 3: Adjusting for Mediators

The third step of progressive adjustment controls for hypothetical mediators of the association. A mediator joins the cause to its consequence. It represents a link in the causal chain. Multiple regression as a statistical procedure does not distinguish mediators from confounders, but interpretation of results must distinguish between them. Analysts sometimes fail to make the distinction, leading to serious misinterpretation. When held constant by adjustment, both confounders and mediators reduce the association between a hypothetical cause and its apparent consequence. The distinction between confounders and mediators follows from their relationships to the hypothetical cause, as illustrated in Fig. 8.1. A confounder precedes both the hypothetical cause and the apparent consequence. When an association vanishes with adjustment for a precursor, the association is spurious: the consequence does not result from the hypothetical cause. In contrast, a mediator follows from the hypothetical cause but precedes the apparent consequence. When an association vanishes with adjustment for a mediator, the mechanism of the effect is revealed: the consequence results from the cause operating through the mediator. Analyses first adjust for hypothetical confounders, to estimate the *remaining* non-spurious association. Then they adjust for hypothetical mediators, to estimate the fraction of the non-spurious association that is explained by the mediators.

Typically, the adjustment for hypothetical mediators proceeds in stages. Each step adds adjustment for a block of several variables. Sometimes the blocks represent alternative hypothetical mechanisms. Other times they represent sequential developmental steps, with one step leading to another. Analyses can blend these approaches, as in the model represented in Fig. 8.1 and estimated in Table 8.1. The model hypothesizes that disrupted schooling, periods of unemployment, and periods of difficulty meeting household needs all mediate the association between childhood parental divorce and adulthood depression. The blocks of hypothetical mediators might act as alternative mechanisms, with each creating a separate part of the association. Alternatively, the blocks might act as a single causal chain.

The progressive adjustment in Table 8.1 (Models 3a–3c) tests the argument that divorce of parents in one's childhood increases depression in adulthood by disrupting education, thereby undermining employment and creating economic hardship, which makes people feel depressed. The results seem partly consistent with the account. Adding adjustment for the person's own educational attainment (Model 3a) reduces the non-spurious association (Model 2) by 30.3% $(([0.244-0.170]/.0244)\times 100=30.3)$. In other words, if those whose parents divorced achieved the same level of education as others, the difference in depression between these two groups would be about 30.3% smaller than the observed difference (net of background status). That reduction seems sizable, but most of the association (69.7%) remains unexplained and statistically significant. That is, the adjusted coefficient continues to differ significantly from 0.

Model 3b adds adjustment for being unable to work because of a disability, having been unemployed during adulthood, and being currently unemployed. This further reduces the association, making it about 38.9% smaller than in Model 2. (Interestingly, this adjustment essentially eliminates the association between minority status and depression, in that it becomes nonsignificant.) Model 3c adds adjustment for past or recent financial difficulties, which reduces the association even more, making it 73.0% smaller than in Model 2. The remaining difference of 0.066 days per symptom per week is only about 7.9% higher than the rate among persons raised in intact families $((0.066/0.837)\times 100=0.079$, where 0.837 is the intercept of Model 2). The t-test for statistical significance indicates a probability of 0.294 that a sample drawn from a population with no (0) difference would show a 0.066 difference purely by chance. This $p=0.294$ is considerably greater than the conventional $p\le 0.050$ required for statistical significance. Disrupted education and a history of unemployment and economic hardship appear to explain the association between divorce of parents in one's childhood and depression in adulthood, that is, the association is entirely mediated by these variables.

Step 4: Revising the Explanation and Model

The final step in a progressive adjustment revises the theoretical explanation so it conforms to the statistical results, and states alternative or supplemental explanations for future research. As in the example, a single mediator rarely explains all of the association between the hypothetical cause and consequence. Adjusting for differences in education explains some of parental divorce's apparent effect on depression, but not most of it. The progressive adjustment in Table 8.1 tested the viability of an explanation focused on education and its consequences for employment and economic well-being. Disrupted education does seem to play a part, but the results suggest some other connections too. The results in Table 8.1 imply that parental divorce leads to unemployment and economic hardship, and thus to depression, partly but not entirely because of lower education because controlling just for education did not fully explain the association. What else might connect parental divorce to unemployment, economic hardship, and depression?

Demonstrating the viability of one statistical explanation does not necessarily rule out the viability of another. An alternative explanation of the depression associated with parental divorce might focus on interpersonal rather than economic consequences. Parental divorce might leave some children fearful about relationships with other people and unable to form supportive ones as adults. Indeed, analysis not shown here (Ross & Mirowsky, 1999) *indicates* that, compared to persons from intact families, adults whose parents divorced have had more marriages, are less happy with their present marriages, think of divorce more often, and are more mistrusting of others in general. Adjusting for those variables also eliminates most of the association between the parental breakup and depression. Apparently, childhood parental divorce has two major effects, economic and interpersonal, perhaps with interwoven consequences that raise the frequency of adulthood symptoms of depression.

Each progressive adjustment analysis ends with a reconsideration of the theoretical explanation, which typically begins a new cycle of analysis. In explaining the relationship of parental divorce to adulthood depression, the next step might be to integrate the economic and interpersonal explanations. Perhaps interpersonal doubts increase the risk of depressing adulthood unemployment and economic hardship, by hampering the ability to maintain stable and mutually supportive work and family relationships. A new analytic cycle could elaborate the progressive adjustment by showing how the two explanations intertwine.

Interaction Modeling

Interaction models specify moderators that regulate the size of an association. By definition, a moderator enlarges, diminishes, or reverses the association between two other variables (Wheaton, 1985). The search for moderators constitutes a second form of statistical explanation that is distinct from the search for mediators, *in* the sense that a moderator determines the size and direction (positive or negative) of an association between two variables, the state of the moderator explains their association.

The distinction between mediators (discussed in the previous section) and moderators (discussed in this section) can seem elusive at first. Analysts need to make the distinction because mediators and moderators embody different types of theoretical explanation with different statistical representations. A mediator results from the hypothetical cause and produces its consequence, thus forming the link between them. Mediators are necessarily correlated with the hypothetical cause and consequence. In contrast, a moderator changes the relationship between the hypothetical cause and consequence. A moderator could be completely uncorrelated with the hypothetical cause and consequence, yet determine the magnitude or direction of its effect on the hypothetical consequence. Some moderators are necessary for an effect to occur, as when a precipitating stress is necessary to turn a predisposition into a disorder. Some moderators buffer potentially damaging circumstances or events, as when a supportive marriage lessens or absorbs the shock of a stressful event such as the death of a parent. Some moderators aggravate the impact of stresses, irritations, or threats, as when children in the household magnify the distress associated with unemployment.

Moderators can be external or internal to the effect being modified. External moderators are attributes that describe everyone in all categories of exposure, whereas internal moderators only describe the members of one category. The distinction can be difficult to grasp when stated in abstract terms, but a concrete example makes it clear. The effect on depression of being married rather than unmarried may depend on a person's number of previous marriages and on the quality of the current marriage. Whether married or not, everyone has some number of previous marriages. The number may be zero or one or two or three or more. The important thing is that everyone, whether currently married or not, has some number of previous marriages. The number of previous marriages may alter the effect of current marital status on depression, making the number of previous marriages an external moderator of the association between marital status and depression. Perhaps persons who have multiple previous marriages benefit less emotionally from being married than those who are in first marriages. In contrast, only married people can be unhappy with the marriage and thinking of divorce. Unmarried people cannot be described and compared in terms of marital quality. If unhappiness with the marriage and thoughts of divorce cancel the otherwise beneficial effect of marriage on depression, then they act as internal moderators of that association.

Most discussions of interaction modeling focus on external moderators, but modeling the internal moderators can be useful too. Both types of interactions describe the conditions that strengthen, weaken, eliminate, or invert an association. The rest of this section illustrates the models that describe external and internal moderators.

External Moderators

The key to understanding interaction models lies in thinking of regression coefficients as if they were variables, in the usual sense of the term. In the absence of significant interaction, the same regression coefficient applies to everyone. In other words, the independent variable has a similar effect on the dependent variable for everyone. In the presence of significant interaction, however, the effect (measured by the coefficient) depends on the moderator. Most data analysts learn to think of regression coefficients as constants, but the coefficients portray associations that may change, depending on circumstances. The product-term interaction model (where the interaction consists of one variable multiplied by another variable), described below, represents the most prevalent model from a family of alternative operationalizations of moderators that includes latent growth curves, hierarchical linear models, and nonlinear regressions. Product-term interaction models provide the simplest way to describe regression coefficients that vary across segments of the population (Aiken & West, 1991).

Multiple and Conditional Regression

To understand product-term interaction models, one needs to compare conditional regression equations with multiple regression equations. Consider, for example, the effect of marriage on depression, which might depend on the number of previous marriages. In the equations below, D represents the frequency of feeling depressed, P represents the number of previous marriages, and M represents the state of currently being married (scored one) or not (scored zero). Equation *8.3* represents the multiple regression with no product-term interaction.

$$\hat{D} = b_0 + b_1 P + b_2 M \tag{8.3}$$

Model 2 of Table 8.2 shows the multiple regression estimates for Eq. 8.3. Unmarried people with no previous marriages average about 1.135 days per symptom. By comparison, currently married people average about 0.449 fewer days per symptom than unmarried people with the same number of previous marriages. Among those with no previous marriages, the model predicts that the married have 39.6% fewer days per symptom than the unmarried ($[-0.449/(1.135+0.151\times0)]\times100=-39.6$).

In Model 2 of Table 8.2, each previous marriage adds an average of about 0.151 days per week to a person's frequency of each symptom. As the number of previous marriages goes up, in this model, the difference in days per symptom remains constant between the married and the unmarried (−0.449). However, the percentage difference goes down because the unmarried are predicted to have more symptom days. For example, among those with two previous marriages the model implies that the currently married have 31.2% fewer days per symptom ($[-0.449/(1.135+.151\times2)]\times100=-31.2$) than the unmarried. On a percentage basis, this difference is smaller than the 39.6% fewer days estimated above for persons with no (0) previous marriages.

Table 8.2 Modeling external interactions: Regressions showing differences in depression[a] between adults who currently are married and those who are not, depending on the number of previous marriages[b]

		D = Depression index			SQRT(D)	LN(D + 0.071)
b_i	Independent variable	Model 1	Model 2	Model 3	Model 4	Model 5
b_1	Previous marriages (0–3)		0.151^{***} (3.351)	0.085 (1.170)	0.002 (.058)	–0.045 (–.557)
b_2	Married currently (/no)	-0.437^{***} (–8.537)	-0.449^{***} (–6.634)	-0.474^{***}(–8.491)	-0.278^{***}(–10.076)	-0.623^{***}(–10.348)
b_3	Married × previous marriages			0.106 (1.141)	0.098^{*} (2.140)	0.256^{**} (2.571)
b_0	Intercept	1.167^{***}	1.135^{***}	1.149^{***}	0.845^{***}	-0.673^{***}
R^2		0.027	0.032	0.032	0.041	0.042

*$p < 0.050$; **$p < 0.010$; ***$p < 0.001$; one-tailed t-test

[a] Depression is measured with an index of seven symptoms. Scores represent the average weekly number of days per symptom. SQRT(D) is the square root of the depression score, LN(D + 0.071) is the natural log of the depression score (plus a small value to eliminate zeros (see text))

[b] Unstandardized coefficients with t-values in parentheses below

Is this realistic? Does the difference between married and unmarried remain constant as the number of previous marriages goes up? Perhaps not. Maybe it gets larger, because a current marriage reduces the sense of failure or loss from the previous marriages. Maybe it gets smaller, as the currently unmarried become more comfortable with being unmarried while the currently married become less committed. To find out, we need to model the change in the marriage coefficient at different numbers of previous marriages.

Accomplishing this entails a *conditional regression*, which describes how the association depends on the value of a moderator. Equation 8.4 represents the conditional regression of depression on marriage, showing how it depends on the number of previous marriages. In Eq. 8.4, both the intercept and the slope (the conditional coefficient of M) are variables that depend on the number of previous marriages. In the equation, $b_0 + b_1 P$ represents the conditional intercept: the predicted frequency of depression among unmarried people with P previous marriages. Likewise, $b_2 + b_3 P$ represents the conditional slope: the predicted difference in depression between married people and others who also have P previous marriages.

$$\hat{D} = (b_0 + b_1 P) + (b_2 + b_3 P)M \tag{8.4}$$

Equation 8.4 is called a conditional or "simple" (Aiken & West, 1991) regression equation. It shows how each distinct value of P implies a different value of the intercept and slope that describe the relationship between depression and marriage.

External Product Terms

Standard multiple regression programs cannot directly estimate conditional regression coefficients such as $(b_2 + b_3 P)$ in Eq. 8.4. Instead, product terms provide the easiest and most common way to model the effects of moderators. Multiplying through Eq. 8.4 and collecting terms produces Eq. 8.5, which shows how product terms solve the estimation problem. Multiplying the conditional coefficient $(b_2 + b_3 P)$ by M gives the result $b_2 M + b_3 (P \times M)$. Calculating the product term $P \times M$ and adding it to the regression equation as an independent variable allows estimation of the conditional slope.

$$\hat{D} = b_0 + b_1 P + b_2 M + b_3 (P \times M) \qquad 8.5$$

In Eq. 8.5, the product term's coefficient b_3 represents the effect of the moderator (P) on the association between the other two variables (D and M). The t-test for the product term's coefficient b_3 tests the null hypothesis that there is no interaction—that the effect of marriage on depression does not increase or decrease as the number of previous marriages increases, for example.

Adding a product term to a regression model changes the meaning of the coefficients associated with the component variables. In the multiple regression of Eq. 8.3, the coefficient b_2 represents the effect of marriage holding previous marriages constant. This can be viewed as the average effect of marriage for any given number of previous marriages. In contrast, the coefficient b_2 in the product-term models of Eqs. 8.4 and 8.5 represents the effect of marriage on depression *among persons with zero previous marriages* ($P = 0$). The t-test for b_2 in Model 3 of Table 8.2 tests the null hypothesis that there is no significant difference in depression between married and unmarried people with no previous marriages ($P = 0$). Likewise the t-test for b_1 in Model 3 tests the null hypothesis that there is no significant effect of previous marriage among persons who are currently unmarried ($M = 0$). Data analysts must remember that adding the product term changes the meaning of the "lower order" coefficients (i.e., the components of the interaction). The coefficient of a lower order term represents the effect of that factor when the other factor in the product term equals zero.

Model 3 of Table 8.2 provides the conditional regression estimates. Unmarried people average about $1.149 + 0.085\,P$ days per symptom. Married people differ from them by an average of $-0.474 + 0.106\,P$ days per symptom, so the emotional *advantage* of marriage gets smaller as the number of previous marriages increases. Each previous marriage adds an average of about 0.085 days a week to an unmarried person's frequency of a symptom, and adds an average of 0.106 days to a married person's frequency.

Statistical Significance and Multicollinearity

Oddly, neither the effect of P on the intercept (0.085) nor its effect on the slope (0.106) is statistically significant, even though P has a significant average effect in Model 2. Why? Two technical problems combine to undermine the power of the significance tests. The first problem is called "multicollinearity." Every product-term variable (such as $P \times M$) correlates highly with the two variables multiplied together to produce it (P and M). In this example, a linear regression of $P \times M$ on P and M shows that 65.4% of the product term's variance is common with its two factors. This common variance makes it difficult to distinguish the effects of the product term from those of its components.

A regression coefficient's *t*-test is simply the coefficient divided by its standard error. The common variance among regressors inflates their standard errors. That in turn attenuates their *t*-values. For the product term $P \times M$, the variance inflation factor (VIF) is $1/(1-0.654)=2.890$. This means that the common variance inflates the standard error by SQRT(2.890) = 1.7. That makes the *t*-value only 58.8% of what it would be in the absence of common variance (because $(1/1.7)\times 100=58.8$). Similarly, the VIFs for P and M are 2.636 and 1.189, respectively, making their *t*-values 61.6% and 91.7% of what they would be in the absence of common variance. Normally, a VIF would have to be greater than 5 to be a concern, and greater than 10 to be a serious problem. In this example, however, the VIF of 2.890 is sufficient to undermine the interaction test because of a separate problem common to models predicting symptom scores, described next.

Statistical Significance and Skewed Outcome Distributions

Symptom indices often have one feature that reduces the efficiency of regression estimates: highly skewed distributions. Most people most often have few symptoms. Indices that count symptoms typically produce scores that cluster near the minimum value of zero. This is called a positive skew, because the mean score is higher than the median. For the depression scale in this study, the mean is 0.919 weekly days per symptom but the median is only 0.429 days. In other words, half of the individuals have more than half of the symptoms, and the average person has less than the mean number of symptoms. This concentration of symptoms reflects the *concept* of distress as the unpleasant side of an emotional spectrum ranging from unpleasant to pleasant. Symptom indices generally are made sensitive to unpleasant-side variations but insensitive to pleasant-side ones, resulting in skewed distributions. While this makes sense in a way if the concern is negative affective states, it can cause problems when the index appears as the dependent variable in a regression analysis.

The more skewed the dependent variable, the less efficient the regression estimates (Hamilton, 1992). Inefficient estimates have high standard errors that attenuate the *t*-values, thereby reducing the power of significance tests. Skewed-dependent variables decrease efficiency because they create a correlation between the predictors and the variance of the prediction error, called heteroscedasticity. Transformations that reduce the skewness of the distribution reduce the correlation between the error variance and the predictors and thus improve efficiency.

Several transformations can reduce the positive skew in symptom counts (Hamilton, 1992). The two most common transformations take the square root or the log. Taking the log produces a model that is easier to interpret than taking the square root. However, the log of zero is undefined, whereas the square-root of zero is zero. (Punch zero into your scientific calculator and hit the "ln" key. It will say you have made an error.) Often many persons report no symptoms. In the data for the examples, 777 persons reported no symptoms of depression. It is necessary to assign a non-zero value to persons who reported having no symptoms before taking the log. The lowest observed non-zero score comes from having one of the seven symptoms in the index on 1 day of the week, for a score of 1/7 = 0.143. Half that frequency, or one symptom 1 day every other week, would be a score of 0.5/7 = –0.071. Adding that value to the index score gives everyone a non-zero value, without changing anyone's score an appreciable degree.

In this instance, the square-root and log transformations both reduce skewness, but the log transformation does it better. The skewness statistics for the untransformed index is 2.106, which has a highly significant *t*-value of 43.875. (Zero skewness with a zero *t*-value is the ideal.) The square-root transformation decreases skewness considerably to 0.710, although the *t*-value remains substantial at 14.792. The log transformation essentially eliminates skewness, reducing it to 0.072 with a nonsignificant *t*-value of 1.500.

Both transformations improve the regression fit and interaction test, as shown in Models 4 and 5 of Table 8.2. The explained variance (R^2) and the *t*-value of the product-term increase compared to the untransformed Model 3. In both models, the negative b_2 coefficient means that, among persons with no previous marriage, currently married persons have lower transformed depression scores. The positive product-term coefficient b_3 means that this emotional advantage of current marriage decreases as the number of previous marriages increases.

External Critical Points

When an interaction exists, the association may vanish when the moderator takes a particular value. Data analysts call that value the critical point. It divides the conditions under which the association is negative from the ones under which it is positive. In the example, the emotional benefits of marriage get smaller as the number of previous marriages increases. At some point the benefits of marriage may disappear altogether. The data analysts can use the results from the product-term model to find the critical number of previous marriages P_c. By definition, when $P = P_c$ the conditional regression coefficient equals 0:

$$b_2 + b_3 P_c = 0 \tag{8.6}$$

Solving for P_c tells us the number of previous marriages at which the emotional benefits of marriage disappear:

$$P_c = -\frac{b_2}{b_3} \tag{8.7}$$

The square-root and log models (4 and 5, respectively) yield somewhat different estimates of the cross-over point. For the square-root model it is –0.278/0.098 = 2.8, or approximately 3 previous marriages. For the logged model it is 0.623/0.256 = 2.4, which is closer to 2 previous marriages. Given the larger *t*-values in the logged model, it probably yields a more accurate estimate of the cross-over point. Generally speaking, the models imply that the difference in depression between married and unmarried vanishes with somewhere between 2 and 3 previous marriages.

Cautions About Interactions and Critical Points

Reading the model by working out its implications provides insight. However, the analyst must remember several things. First, an estimated critical point such as P_c may lie in a region where data are sparse. In the data used for the regressions of Table 8.2, only 12 people have had more than three previous marriages, that is, half of 1% of the sample. Only 42 people, or 1.6%, have had three previous marriages. Indeed 60.9% have had no previous marriages and 29.5% have had only one, for a total of 90.4%.

Second, some aspects of the model represent untested assumptions. The product-term model implies that the association may switch from negative to positive at some point. In the example above, the estimated effect of current marriage on depression becomes positive (i.e., undesirable) given three or more previous marriages. Is this really true? An alternative form of the model might imply that the association approaches zero but never changes sign. Such an alternative might fit the data as well as the product-term model, or better. Given the low prevalence of three or more previous marriages, though, statistically distinguishing between the two models might require larger samples.

Finally, the regression coefficients used in the calculations are estimates with some degree of inaccuracy. If a cross-over point really exists, its true value might be higher or lower than the estimate. The transformations to reduce skew shrink the standard errors of b_2 and b_3, narrowing the uncertainty about the cross-over point.

Mean Logs, Geometric Means, and Medians

Transformation of the dependent variable changes more than just the efficiency of estimates. It changes the form of the model and the central tendency that it predicts. By design, a regression model describes the mean value of the dependent variable expected, given specific values of the predictors. A predicted symptom count carries intuitive meaning that the predicted square-root or logged count does not. In Model 3 of Table 8.2, people who are not married and never have been average 1.149 days per symptom (the intercept value). In Model 4, they average 0.845 square-root days per symptom, and −0.673 logged days per symptom in Model 5. What do those values mean? Square-root days or logged days do not communicate substantive meaning well. To grasp the magnitude of the prediction, it must be translated back into days. Squaring the predicted square root gives us $0.845^2 = 0.714$ predicted days per symptom. Antilogging (exponentiating) the predicted log score (written as e^Y or EXP(Y)), yields EXP(−0.673) = 0.510 weekly days per symptom.

Note that the values 0.714 and 0.510 are considerably smaller than 1.149 days per symptom. This occurs because they are closer to predicted medians than to predicted means. Recall that, in this sample, the overall mean depression score is 0.919 and the median is 0.429. The mean square-root is −0.703, which squares to 0.494. The mean logged score is −0.891, which exponentiates to 0.410. Both of those values are closer to the median than to the arithmetic mean. The exponentiated mean of a logged variable is called its geometric mean. (The closer a logged distribution is to normal the closer its geometric mean is to the median of the unlogged distribution.) In this sense, the weekly days per symptom predicted from the transformed scores are closer to the typical values for most people.

The log transformation of the dependent variable changes the interpretation of the regression coefficients as well as the interpretation of the predicted values. Exponentiating the predicted log produces a fully multiplicative model, as illustrated in Eqs. 8.8 and 8.9.

$$\ln \quad \hat{D} = b_0 + b_1 P + b_2 M + b_3 P \times M \tag{8.8}$$

$$\hat{D} = \mathrm{e}^{\ln \hat{D}} = (\mathrm{e}^{b_0})(\mathrm{e}^{b_1})^P (\mathrm{e}^{b_1})^M (\mathrm{e}^{b_3})^{P \times M} = m_0 m_1^P m_2^M m_3^{P \times M} \tag{8.9}$$

Exponentiating a regression coefficient from Model 5 yields a multiplier m_i. Each multiplier describes the geometric mean predicted for persons with a score of one on the variable as a fraction of the geometric mean predicted for persons with a score of zero, other things being equal. For example, the coefficient b_2 in Model 5 equals −0.623. Raising e to that power yields a value of 0.536.

Thus, among persons with no previous marriage ($P=0$), the geometric mean predicted for those who are married is 53.6% of the one predicted for those who are not married. We can invert this and say that the geometric mean frequency among the unmarried with no previous marriages is 86.6% greater than among the married (because $1/0.536=1.866$).

The significant interaction coefficient in Model 2.5 means that the ratio of symptom frequency between married and unmarried depends on the number of previous marriages. There are two ways to calculate the ratio for persons who have previous marriages. The first way calculates b_1+b_3P and raises e to that power. For example, given two previous marriages the predicted ratio is $\mathrm{EXP}(-0.623+0.256\times2)=\mathrm{EXP}(-0.111)=0.895$. Thus, given two previous marriages, the model predicts that the frequency of symptoms among the currently married is 89.5% of the frequency among the unmarried. The second way calculates the interaction multiplier $m_3=\mathrm{EXP}(0.256)=1.292$. Each additional previous marriage multiplies the married-to-unmarried symptom ratio by that amount. For two previous marriages, that is $.536\times1.292\times1.292=0.536\times1.292^2=0.895$.

The log and square-root transformations provide convenient corrections for the problems created by highly skewed outcome measures. Statistical programs sometime offer other solutions, such as ordered-logistic, negative-binomial, Poisson, and zero-inflated Poisson regressions. Although theoretically more correct, those alternatives can be much more difficult to estimate and interpret. One common alternative, however, should be avoided. Researchers sometimes dichotomize the outcome measure at an arbitrary value, and then estimate a logistic or probit regression. Although this avoids the heteroscedasticity problem, it creates two others. First, it imposes an arbitrary division with no particular justification. Should the division be some reported symptoms versus none? Above the median versus not? Above the mean versus not? More than half the possible symptom days (3.5) versus not? Second, it jettisons information on differences in the outcome within the two arbitrary categories. Those differences in the frequency of symptoms get treated as substantively irrelevant and statistically uninformative. They are not. Transformations to reduce skewness are preferable because they preserve those meaningful and informative differences.

Internal Moderators

Often the qualities of a situation determine the effect of being in it (Ross & Mirowsky, 1992). Internal moderators represent differences applicable only to the individuals in a particular situation that affect outcomes on which they may be compared to persons outside the situation too. For example, the effect of employment on household income depends on the salary or wages paid by the job. Everyone in a household has a household income, but only employed persons have wages or salaries. Likewise, the effect of employment on emotional well-being might depend on the job's pay, or perhaps other characteristics such as its level of authority, prestige, or intrinsic reward.

In the case of marriage, its association with anxiety, for example, might depend on the quality of the marriage. Generally speaking, married persons feel anxious less often than others. However, married persons who are not happy with their marriages and think about divorce may be as anxious or even more anxious on average than persons who are not married. Common sense tells us that the emotional benefits of a marriage may depend on qualities of the marriage itself.

How can researchers measure the effects of those qualities on the emotional benefits of marriage? Many investigators study internal moderators by limiting the sample to those for whom the situation is relevant. In the example, that would mean looking only at married people and studying the effect of unhappy marriages and thoughts of divorce on anxiety. The trouble with limiting the sample is that it loses the comparison to unmarried people. That comparison might be important. For example, people might get divorced when their marriages are so distressing that unmarried people are less anxious. How bad does a marriage have to be before it loses its emotional benefits?

Internal Moderator Models

Equation 8.10 shows a simplified internal moderator model with three variables. A is the average weekly frequency of three symptoms of anxiety (feeling worried, tense or restless). M equals one for married persons and zero for others. U is an index of *un*happiness with the current marriage (Cohen, 1968). Married persons were asked "How happy would you say you are with your husband/wife? Would you say very happy, somewhat happy, somewhat unhappy, or very unhappy?" They also were asked, "In the past 12 months, how often would you say the thought of leaving your husband/wife crossed your mind? Would you say never, rarely, sometimes, or often?" Responses to each were coded 0 through 3 and then averaged to produce an index with scores of 0 through 3 and increments of half a point. Note that, in Eq. 8.10, the coefficient of M, which represents the estimated effect of marriage on anxiety, depends on the level of marital unhappiness (U). In contrast, the intercept, which represents the anxiety predicted for the unmarried ($M=0$) does *not* depend on marital unhappiness (U). This is because those who are not married have no marriage to be unhappy about. (Compare the internal-moderator Eq. 8.10 with the external-moderator Eq. 8.4.)

$$\hat{A} = b_0 + (b_1 + b_2 U)M \tag{8.10}$$

How can we estimate the model of Eq. 8.10 if U is irrelevant and therefore undefined for unmarried persons? Simply assign unmarried persons a score of zero on U (i.e., if $M=0$ then assign $U=0$). Multiplying through shows how it works. As with the external moderators, the analyst calculates a product term ($U \times M$) and adds it to the regression equation as an independent variable.

$$\hat{A} = b_0 + b_1 M + b_2 (U \times M) \tag{8.11}$$

For unmarried persons M and $U \times M$ are 0, so the predicted value is b_0. For married persons who are very happy with the marriage and never think of divorce, $M=1$ but $U=0$, so $U \times M=0$ and the predicted value is b_0+b_1. For married persons who are *not* very happy with the marriage *or* sometimes think of divorce, $M=1$ and $U \neq 0$ so $U \times M = U \times 1 = U$, making the predicted value $(b_0+b_1)+b_2U$.

Internal Critical Point

The internal moderator model allows us to estimate the level of marital unhappiness U_c at which the married are not less anxious than the unmarried. In Table 8.3, Model 1 shows the estimated equation for the untransformed anxiety index. Unmarried persons report each symptom on average about 2 days per week (the intercept $b_0=2.006$). Married persons who are very happy with the marriage and never think of leaving ($U=0$) report each symptom about 0.471 fewer days per week (roughly 1 day less every other week). That amounts to 23.5% fewer days per symptom for the very happily married compared to the unmarried. The beneficial effect of marriage vanishes when $U_c = -b_1/b_2 = 0.471/0.748 = 0.630$. That score corresponds roughly to reporting either being "somewhat happy" with the marriage or "rarely" thinking of leaving. In other words, even mild reservations about the relationship appear to eliminate its beneficial effect on anxiety. How common is that mild unhappiness? Among the married, 30.5% have unhappiness scores of 0.5 or higher, and 15.9% have scores of 1.0 or higher.

Table 8.3 also shows the results for the square-root and log transformations of the anxiety index. Note that the *t*-value for the product term $U \times M$ is similar across the three models, unlike the external-moderator depression models discussed earlier. Anxiety is more frequent than depression, so anxiety indexes are less skewed. The main difference, however, is that the product term in an internal-moderator model generally does not have a large *VIF*. In this model, the VIF for $U \times M$ is only 1.189. The square-root

Table 8.3 Modeling internal interactions: Regressions showing differences in anxiety[a] between adults who currently are married and those who are not, depending on unhappiness with the marriage and thoughts of divorce[b]

		A = Anxiety index	SQRT(A)	LN(A + .167)
b_i	Regressor	Model 1	Model 2	Model 3
b_1	Married currently	−0.471*** (−5.701)	−0.175*** (−5.197)	−0.247** (−4.757)
b_2	Married × unhappy with marriage	0.748*** (8.490)	0.330*** (8.760)	0.495*** (8.518)
b_0	Intercept	2.006***	1.147***	0.148***
R^2		0.031	0.031	0.029

*$p < 0.050$; **$p < 0.010$; ***$p < 0.001$; one-tailed t-test

[a] Anxiety is measured with an index of three symptoms. Scores represent the average weekly number of days per symptom, with a mean of 1.872 and median of 1.000. The skewness of the anxiety scores is 1.088*** for A ($t = 22.667$), 0.143*** for SQRT(A) ($t = 2.979$), and −0.299 for LN($A + 0.167$) ($t = -6.229$)

[b] Unstandardized coefficients with t-values in parentheses below. See note in Table 8.1

and log models yield critical marital unhappiness scores of $U_c = 0.530$ and 0.500 respectively (compared to 0.630 for the untransformed Model 3.1). While these estimates are more exact, the general point remains the same. Mild unhappiness with the relationship apparently makes married persons as anxious as the non-married. Any greater unhappiness with it makes them more anxious than the unmarried.

Mediators as Moderators: Structural Amplification

The introduction to this chapter noted that the statistical explanation of an association takes two main forms: progressive adjustment for confounders and mediators, and interaction modeling. Sometimes a mediator of an association also acts as a moderator of it. For example, low social status in childhood reduces adulthood mental and physical health by limiting achieved adulthood status in the form of education, employment, income, and economic security. Thus, low adulthood status mediates the effect of low childhood status. However, high adulthood social status reduces or eliminates the undesirable effects of low-status childhood origins on current mental and physical health, thus acting as a moderator. The very thing that would moderate the effect of low childhood social status origins is itself limited by it. Individuals whose adulthood health and well-being would benefit most from higher achieved status are the least likely to achieve that status. Those who benefit the least from higher achieved status are the most likely to achieve it.

This section shows how mediation and moderation combine to create *structural amplification* (Ross & Mirowsky, 2011; Ross, Mirowsky, & Pribesh, 2001), as in the example above. “Structural” refers to the arrangement and mutual relation of the parts in a complex unit or system. “Amplification” refers to extending, enlarging, increasing, strengthening, or expanding an association. Structural amplification is a special case of “moderated mediation” (Preacher, Rucker, & Hayes, 2007; Ross & Mirowsky, 2006) in which social inequalities are enlarged because a disadvantaged status reduces access to something that would otherwise moderate its effect on the outcome.

As an example, this section looks at educational attainment as a mediator and moderator of the relationship between physical impairment and parental education. Rising physical impairment mediates a large fraction of the old-age decrease in the sense of control and increase in feelings of depression (Mirowsky & Ross, 1992, 2003). It links the exposures and experiences of childhood to well-being in old age.

Table 8.4 Two-level path model with structural amplification: Deviation-score regressions predicting education (E) from parental education (P) and predicting physical impairment (I) from education and parental education and their interaction ($P \times E$)[a,b]

	Dependent variable	
	I^c	E
Independent variable	Model 1	Model 2
P	$b_1 = -0.016^{**}$ (−2.725)	$a_1 = 0.265^{**}$ (16.745)
E	$b_2 = -0.055^{***}$ (−8.143)	
$P \times E$	$b_3 = 0.004^{**}$ (2.370)	

$^*p < 0.050$; $^{**}p < 0.010$; $^{***}p < 0.001$; one-tailed t-test

[a] All variables are measured as deviation scores (centered on the sample means: 11.0 for parental education, 13.3 for education, and −1.7 for the logged impairment score). The regressions adjust for age, sex, race, and marital status centered on their sample means or proportions

[b] Unstandardized coefficients with t-values in parentheses below

[c] The impairment index measures difficulty with common physical functions such as using stairs or carrying a bag of groceries. The index is logged to reduce skewness. Details are given in Ross and Mirowsky (2011)

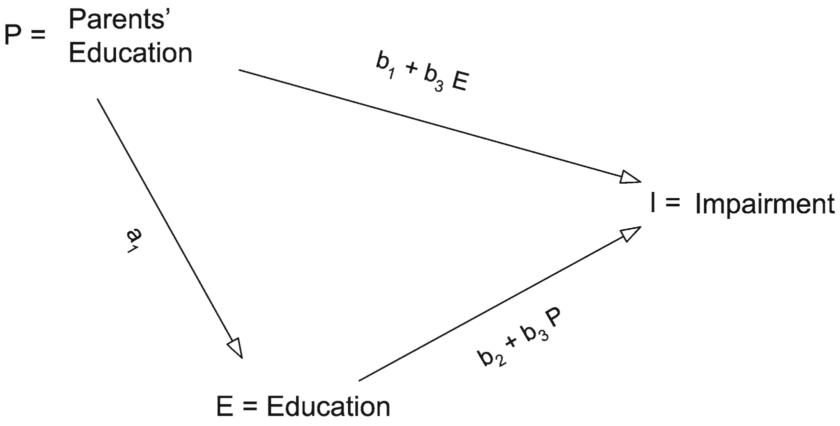
Mean Centering and Average Net Effects

For the example, all variables are measured as deviations from their sample means. Centering on the means simplifies the analysis of results in several important ways. First, it implicitly fixes intercepts to zero, so they can be left out of the equations and tables. When all of the independent variables are at their mean values, the predicted outcome is its mean value. If all variables are centered at their means, the predicted value is zero when all of the independent variables are zero, making the intercept zero. More importantly, although, centering on means provides estimates of average effects, as described below.

Model 1 in Table 8.4 shows the regression of logged physical impairment scores on parental education, personal education, and their product-term interaction. In the model, b_1 represents the net effect of parental education on impairment holding personal education constant at its mean (zero because of the centering). In other words, b_1 is the effect of parental education at the average level of personal education (when E and $E \times P$ are both zero). Algebraically this equals the average net effect of parental education across the levels of personal education in the sample. The coefficient shows that the average effect is negative and the t-value indicates that it is statistically significant. Similarly, b_2 and its t-value show that the average net effect of personal education is negative and statistically significant.

Deviation from the Average Net Effect

What happens to the effect of parental education as personal education deviates from its mean? The coefficient b_3 and its t-value show a statistically significant interaction with a sign opposite to that of the average effect. Taking the interaction into account, the net effect of parental education equals $b_1 + b_3 E$. The negative slope gets flatter as personal education increases above its mean and it gets steeper as education decreases below its mean. The estimated effect of personal education vanishes at the critical value of personal education $E_c = -b_1/b_3 = 4$ years above the mean, or $4 + 13.3 = 17.3$ years of education. Thus, the model implies that the net effect of parental education on impairment vanishes



Structural Equations $\longrightarrow$ Reduced-Form Equations

$E = a_1 P$

$I = b_1 P + b_2 E + b_3 P E$
or
$I = b_2 E + (b_1 + b_3 E) P$

$I = b_1 P + b_2 [a_1 P] + b_3 P [a_1 P]$

$I = (b_1 + b_2 a_1) P + (b_3 a_1) P^2$

Fig. 8.2 Path diagram of a mediator that also moderates the total effect. This example represents structural amplification because personal education reduces the effect of low parental education on impairment, but is itself reduced by low parental education

for individuals with personal education beyond the 4-year college degree. The same deviation in the opposite direction ($13.3 - 4 = 9.3$ years of personal education) makes the net effect of parental education twice its average. (It can be shown that when $E = (k - 1)b_1/b_3$ the net effect of parental education is the average effect b_1 multiplied by k.)

Indirect and Total Effects

The net effect of parental education analyzed above takes the level of personal education as unrelated, as if there were no connection between the two. However, the total effect of parental education includes its indirect effect through personal education. Model 2 in Table 8.4 shows the estimated effect of P on E, which is positive and statistically significant. This effect, together with the interaction, produces the structural amplification. In the path model of Fig. 8.2 the total effect of parental education sums its direct and indirect effect. The average *direct* effect is b_1, and the average *indirect* effect is $a_1 b_2$, for an average *total* effect of $-0.016 + 0.265 \times -0.055 = -0.016 - 0.015 = -0.031$. Thus, the average *total* effect of parental education is nearly twice the size of its average *direct* effect. When parental education is below average, the interaction makes its total effect larger than average, as detailed below. Likewise, when parental education is above average, the interaction makes its total effect smaller.

The overall total effect of parental education is given by the reduced form equations in Fig. 8.2. The mediation and moderation combine to produce a quadratic equation. Note that the coefficient of the linear term is the average total effect. In the absence of an interaction it would be the total effect. The coefficient of P^2 measures the curvature–the deviation from linearity. The curvature is the product

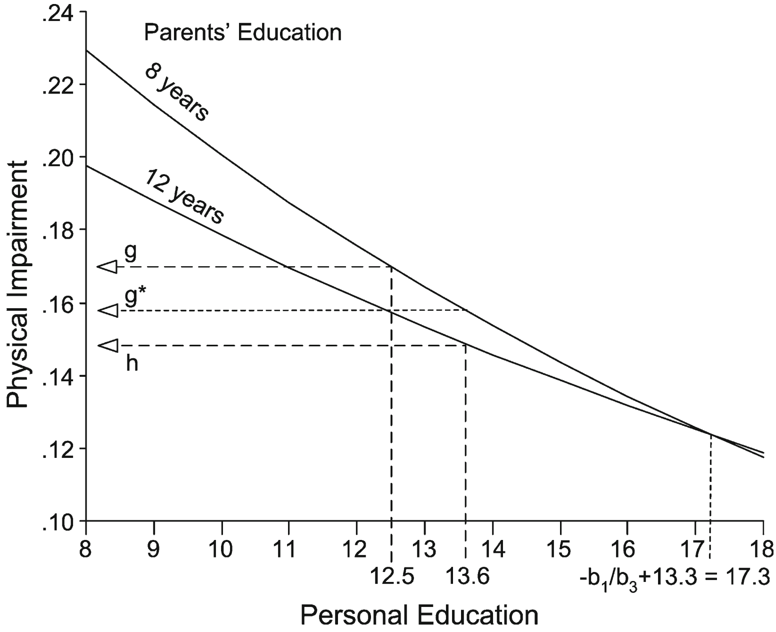


Fig. 8.3 Illustrating structural amplification with the mediator-moderator on the *X* axis. If parental education is 8 years, then the predicted personal education is 12.5 years, and the predicted impairment is point *g*. If parental education is 12 years, then the predicted personal education is 13.6 years and the predicted impairment is point *h*. Point *g** shows how much the gap between *g* and *h* closes if someone with 8 years of parental education achieves 13.6 years of schooling instead of the expected 12.5 years

of the effect of P on $E(a_1)$ and the moderating effect of E on the relationship between P and I (b_3). It can be shown that $2b_3a_1$ measures how the total effect changes as P increases: the total effect$=b_1+b_2a_1+2b_3a_1P$. The negative slope of impairment with respect to parental education is steepest at the lower end and gets flatter as P increases. When parental education is below the mean, an increase has a bigger than average total effect (because the negative value of P is multiplied by the positive b_3a_1 and the product added to the negative average total effect). When parental education is above the mean, an increase has a smaller than average total effect. The overall pattern is a classic "diminishing returns" effect of increments to parental education on physical impairment in adulthood.

Graphing Moderated Mediation

Graphing interaction models often clarifies their implications. Interactions between continuous variables can be graphed two ways. In the example, a graph can represent the relationship between impairment and parental education at multiple levels of personal education, or it can show the relationship between impairment and personal education at multiple levels of parental education. The second format, with the mediator–moderator on the horizontal axis, can show how the two elements work together, as illustrated in Fig. 8.3. Two regression lines show the modeled relationship between the geometric mean physical impairment and personal education at 8 and 12 years of parental education. Model 2 of Table 8.4 provides the personal education expected at 8 and 12 years of parental education. When parental education is 8 years the predicted personal education is $(8-11) \times 0.265 + 13.3 = 12.5$ years. The line ending at point *g* shows the physical impairment predicted for someone with that combination of parental and personal education. Likewise, when parental education is 12 years the predicted personal education is $(12-11) \times 0.265 + 13.3 = 13.6$. The line ending at *h* shows the impairment predicted for that combination. The gap between *g* and *h* represents the total effect of having parents with 8 versus 12 years of education.

Figure 8.3 shows how the impairment gap results from the combination of two things: the different levels of personal education and the different regression slopes. The point g^* shows what the impairment gap would be if persons with 8 years of parental education averaged 13.6 years of personal education, the same as expected for persons with 12 years of parental education. Were it not for the effect of parental education on personal education, the impairment gap would be cut in half. Similarly, if persons with 8 years of parental education were on the same regression line as those with 12 years, the gap would be cut in half.

Figure 8.3 also illustrates the two consequences of higher personal education. Higher personal education moves the individual further down the slope toward lower impairment. It also moves the individual closer to the point at which the effect of parental education vanishes.

Structural amplification occurs frequently in intergenerational effects, because the achieved statuses that soften the impact of disadvantaged origins correlate across generations. As a result, problems can become concentrated within families across the generations. Low educational attainment often plays a large role (Mirowsky & Ross, 2003). Increasing the average level of education between generations provides the best antidote.

Structural amplification occurs in other realms as well. For example, living in a neighborhood with abandoned buildings, vandalism, graffiti, noise, and people hanging out drinking or taking drugs creates a distressing mistrust of others (Ross et al., 2001). A sense of control over one's own life insulates against that effect. However, living amidst neighborhood decay and disorder erodes the sense of personal control, magnifying the mistrust. Once again, the very thing that can protect individuals in a corrosive situation is undermined by it.

Conclusion

Searching for mediators and moderators constitutes two main strategies of sociological research on mental health. Although distinct, the two approaches share a tactical goal: the specification of circumstances under which an association is completely explained, that is, it vanishes. Each method is a powerful analytic tool in itself, and they can be combined. Structural amplification modeling is one way to combine them. In addition, progressive adjustment can be applied to models with product terms, polynomials, and other forms of contingent effects.

Once sociologists know that an association exists they want to know why. Why are women more depressed than men? Why are men more destructive than women? Why are young adults more anxious than old adults? The chapters that follow summarize the results of many studies that used progressive adjustment and interaction modeling to answer such questions.

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Part III
The Social Distribution of Mental Health and Illness

Chapter 9
Overview of Descriptive Epidemiology of Mental Disorders

Ronald C. Kessler

Abbreviations

ADHD	Attention-deficit hyperactivity disorder
AOO	Age-of-onset distributions
CIDI	Composite International Diagnostic Interview
DIS	Diagnostic Interview Schedule
DSM	Diagnostic and Statistical Manual of Mental Disorders
ECA	Epidemiologic Catchment Area Study
NCS	National Comorbidity Survey
NCS-R	National Comorbidity Survey Replication
NAP	Nonaffective psychosis
PTSD	Posttraumatic stress disorder

Epidemiology is the study of the distribution and correlates of illness in the population. The chapters in this section of the handbook use recent work in descriptive psychiatric epidemiology to probe the social origins of psychiatric disorder and psychological distress. The focus of this chapter is on basic patterns of prevalence of psychiatric disorder and their sociodemographic correlates. Intriguing patterns have been found and continue to be explored in all these areas. These patterns provide hints as to the ways in which social structure influences the distribution, manifestation, recognition, labeling, and societal responses to mental illness. These hints are the raw materials used by sociologists to develop, refine, and empirically test theories about the social antecedents and consequences of mental illness. The present chapter sets the stage for those later in the section by providing an overview of current knowledge about descriptive psychiatric epidemiology. We begin with an historical overview and then review recent data on prevalence and correlates of mental illness.

R.C. Kessler (✉)
Department of Health Care Policy, Harvard Medical School,
180 Longwood Avenue, Boston, MA 02115, USA
e-mail: kessler@hcp.med.harvard.edu

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Handbooks of Sociology and Social Research, DOI 10.1007/978-94-007-4276-5_9,

Historical Overview

Although descriptive studies comparing admission and discharge rates to and from asylums were carried out as early as the seventeenth century, it was not until the early nineteenth century that studies began to appear that linked social structure to individual illness outcomes (Hunter & Macalpine, 1963). The latter consistently documented associations that were interpreted as showing that environmental stresses, especially those associated with poverty, can lead to mental disorders. For example, in one of the best known of these early studies, Burrows in 1820 documented a time series association between admission rates to British mental asylums and crop failures and argued that this association showed financial adversity to be a cause of insanity. Later in the century, in the most famous psychiatric epidemiological study carried out in nineteenth-century America, Jarvis documented a relationship between poverty and insanity in the 1850 Massachusetts Census and interpreted this as being due to the stresses of poverty.

Research using archival statistics continued to be the mainstay of descriptive psychiatric epidemiology up to the middle of the twentieth century. Important sociological studies in this tradition included Durkheim's (1951) famous study of suicide, the work of Faris and Dunham (1939) on the social ecology of schizophrenia, and the Hollingshead and Redlich (1958) study of social class and mental illness. These classic studies set the agenda for much of the current work reviewed in this section of the handbook.

Most of these early studies were hampered by the fact that they focused on archival data, which confounded information about help seeking and labeling with information about illness prevalence. In the few cases where population data were used rather than treatment statistics, as in the Jarvis' study, concerns existed about accuracy of assessment. Indeed, the initial data collected by the Massachusetts census takers for Jarvis' study were so clearly biased by under-reporting that Jarvis had to carry out a second census of over 1,700 physicians, clergy, and other key informants who were enlisted to identify the insane people in their communities. This key informant method continued to be the main approach to studying the population prevalence of mental disorders until the end of World War II. Although this method was useful in avoiding the help-seeking biases associated with treatment studies and the concealment biases associated with self-report studies, key informants tended to miss people whose disorders were characterized more by private distress than public acting out. This led to an underestimation of disorder overall as well as to a distorted picture of disorders being much more prevalent among men than women.

The end of World War II brought with it a growing appreciation of these methodological problems as well as a growing concern about the prevalence of mental illness. This concern was heightened by the fact that many selective service recruits for World War II were found to suffer from emotional disorders and to return from the war with what is now known as posttraumatic stress disorder (PTSD). One response was the initiation of a number of local and national surveys of mental disorders based on direct interviews with representative community samples. The earliest of these post-war surveys were either carried out by clinicians or used lay interview data in combination with record data as input to clinician evaluations of caseness (Srole, Langer, Michael, Opler, & Rennie, 1962). In later studies, clinician judgment was abandoned in favor of less expensive self-report symptom-rating scales that assigned each respondent a score on a continuous dimension of nonspecific psychological distress (Gurin, Veroff, & Feld, 1960). Controversy surrounded the use of these rating scales from the start, focusing on such things as item bias, insensitivity, and restriction of symptom coverage (Dohrenwend & Dohrenwend, 1965; Seiler, 1973). Nonetheless, they continued to be the central focus of community psychiatric epidemiology through the 1970s.

Three factors account for the attraction of symptom-rating scales in these studies. First, these scales were much less expensive to administer than clinician-based interviews. Second, as compared to dichotomous clinician caseness judgments, continuous measures of distress dealt directly with the actual constellations of signs and symptoms that exist in the population, as distinct from the classification schemes imposed on these constellations by the psychiatrists who created the official diagnoses of the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association. Third, the clinician-based diagnostic interviews available during this period of time did not have good psychometric properties when administered in community samples (Dohrenwend, Yager, Egri, & Mendelsohn, 1978).

However, there were also disadvantages of working with rating scales. Perhaps the most important of these was that there was nothing in these measures themselves that allowed researchers to discriminate between people who did and did not have clinically significant emotional problems. This differentiation was less important to social scientists, whose main concern was characterizing the range of distress associated with structural variations, than to clinicians and social policy analysts who wanted to make decisions regarding such things as the number of people in need of mental health services. A division consequently arose within the field of psychiatric epidemiology that lingers to this day, with sociologists focusing much of their research on studies of dimensional distress and psychiatric epidemiologists focusing their research on studies of dichotomous caseness designations.

A middle ground between these two positions was sought by some researchers who developed rules for classifying people with scores above a certain threshold of distress scales as psychiatric “cases” (Radloff, 1977) and studied both continuous and dichotomous outcomes. The precise cutpoints used in this research were usually based on statistical analyses that attempted to discriminate optimally between the scores of patients in psychiatric treatment and those of people in a community sample. However, as noted above, considerable controversy surrounded the decision of exactly where to specify cutpoints. Dichotomous diagnostic measures allowed this sort of discrimination to be made directly based on an evaluation of diagnostic criteria, but these interviews were not precise due to lack of agreement on appropriate research diagnostic criteria and absence of valid instruments for carrying out research diagnostic interviews.

It was not until the 1970s that the field was able to move beyond this controversy with the establishment of clear research diagnostic criteria (Feighner et al., 1972) and the development of systematic research diagnostic interviews aimed at operationalizing these criteria (Endicott & Spitzer, 1978). The early interviews of this type required administration by clinicians, which yielded rich data but limited their use in epidemiologic surveys because of the high costs associated with large-scale use of clinicians as interviewers. The majority of interviewers in these studies were clinical social workers. It is unsurprising, in light of the high costs and logistic complications of mounting a large field operation using professionals of this sort as interviewers, that only a handful of such studies were carried out and that these studies were either quite small (Weissman & Myers, 1978), based on samples that were not representative of the general population (Kendler, Neale, Kessler, Heath, & Eaves, 1992), or were carried out outside the USA in countries where the costs of clinician interviewing is much lower (Dohrenwend et al., 1992).

Two responses to this situation are noteworthy. The first was the refinement of two-stage screening methods in which an inexpensive first-stage screening scale can be administered by a lay interviewer to a large community sample and followed with more expensive second-stage clinician-administered interviews for the subsample of initial respondents who screen positive plus a small subsample of those who screen negative (Newman, Shrout, & Bland, 1990). The hope was that two-stage screening would substantially reduce the costs of conducting clinician-administered community epidemiologic surveys. However, problems associated with reduced response rates due to the requirement that respondents participate in two interviews and the increased administrative costs associated with logistic complications in this design prevented it from being used widely in community surveys, although it was, and continues to be, used in surveys of captive populations such as school children in classrooms.

The second response was the development of research diagnostic interviews that could be administered by lay interviewers (Robins, Helzer, Croughan, & Ratcliff, 1981). The remainder of this chapter will provide a selective overview of the results regarding the descriptive epidemiology of mental disorders in the USA based on recent surveys that have used such instruments. The focus will be on the prevalence of dichotomously defined disorders as set forth in the DSM of the American Psychiatric Association. Although a number of versions of the DSM classification scheme exist, most of the results reported here are based on the fourth edition (DSM-IV) (American Psychiatric Association, 2000) because this is the system that has been the basis for most recent general population research on the prevalence of mental disorders.

It is important to recognize that there is an inherent ambiguity in making the dichotomous decision that is required in the DSM to define some people as "cases" and others as "noncases." This ambiguity is recognized by the clinicians who are involved in work to establish diagnostic criteria (Frances, Widiger, & Fyer, 1990). There are some ways in which this ambiguity is not terribly different from the situation in areas of physical medicine where yes-no treatment decisions have to be made based on continuous data, such as the decision of where to draw the line in blood pressure readings to define hypertension. Decisions of this sort are usually made on the basis of actuarial evidence regarding subsequent risk of some fairly well-defined outcome (e.g., stroke) associated with the continuous measure, but there is certainly no expectation that all of the people on one side of the line will experience the outcome or that none on the other side of the line will do so. However, the situation is more difficult in the area of psychiatric assessment because there are no relatively unequivocal dichotomous outcomes equivalent to having a heart attack or stroke or developing cancer that can be used as a gold standard. Nonetheless, despite this ambiguity, it is necessary for social policy purposes to make dichotomous diagnostic distinctions of this sort. That is why we do so here.

Data Sources

The need for general population data on the prevalence of mental illness was recognized over three decades ago in the report of President Carter's Commission on Mental Health and Illness (The President's Commission on Mental Health, 1978). It was impossible to undertake such a survey at that time, due to the absence of a structured research diagnostic interview capable of generating reliable diagnoses in general population samples. As noted above, the National Institute of Mental Health, recognizing this need, funded the development of the Diagnostic Interview Schedule (DIS) (Robins et al., 1981), a research diagnostic interview that could be administered by trained interviewers who are not clinicians. The DIS was first used in the Epidemiologic Catchment Area (ECA) Study, a landmark study that interviewed over 20,000 respondents in a series of five community epidemiologic surveys carried out between 1980 and 1985 (Robins & Regier, 1991). The ECA Study was the main source of data in the USA on the prevalence of mental disorders and utilization of services for these disorders over the subsequent decade.

The ECA Study was carried out in five metropolitan areas in the USA. The results consequently tell us nothing about the 20% of the US population who live in rural areas. This problem subsequently was addressed when the National Institute of Mental Health funded the National Comorbidity Survey (NCS) (Kessler et al., 1994), a household survey of over 8,000 respondents in the age range 15–54 that was carried out between 1990 and 1992 in a widely dispersed (174 counties in 34 states) sample designed to be representative of the entire US population. The NCS interview used a modified version of the DIS known as the Composite International Diagnostic Interview (CIDI) (Robins et al., 1988) that expanded the DIS to include diagnoses based on DSM-III-R (American Psychiatric Association, 1987) criteria. A replication of the NCS, the NCS-R, was carried out a decade later (2001–2003) to study trends in the prevalence and treatment of mental disorders (Kessler, Berglund, et al., 2005; Kessler, Chiu, Demler, Merikangas, & Walters, 2005; Wang, Berglund, et al., 2005; Wang, Lane, et al., 2005). Results from the NCS-R are the main focus of the present chapter, as this is the US survey that has assessed prevalence of the broadest range of DSM-IV disorders.

A final point regarding data sources concerns diagnostic coverage. Almost all of the diagnoses that have been included in the above epidemiological surveys are Axis I disorders (i.e., clinical disorders and learning disorders), including mood disorders (major depression, dysthymia, bipolar disorder), anxiety disorders (generalized anxiety disorder, panic disorder, phobia, obsessive-compulsive disorder, posttraumatic stress disorder), and substance use disorders (alcohol and drug abuse and dependence). The NCS-R expanded this list to include behavior disorders (attention-deficit/hyperactivity disorder, conduct disorder, oppositional-defiant disorder, intermittent explosive disorder). Nonaffective psychosis (NAP; schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder, brief psychotic reaction) also has been studied both in the NCS-R (Kessler, Birnbaum, et al., 2005) and in other epidemiological surveys (Gureje, Olowosegun, Adebayo, & Stein, 2010; Ochoa et al., 2008), but the sensitivity of survey measures of NAP is so low that great caution is needed in interpreting results. Data on NAP consequently are not reviewed here. Excellent reviews of the literature on NAP are available elsewhere (McGrath & Susser, 2009; Saha, Chant, Welham, & McGrath, 2005). Axis II disorders (i.e., personality disorders and intellectual disabilities) generally have not been included in the community epidemiological surveys described here. Although some preliminary data exist on the epidemiology of personality disorders (Lenzenweger, Lane, Loranger, & Kessler, 2007), these data are not reviewed here because they are so sparse.

Lifetime Prevalence and Correlates of DSM-IV Disorders

Prevalence

The lifetime prevalence of any disorder in the NCS-R was estimated to be 46.4%, with 27.7% of respondents estimated to have two or more lifetime disorders and 17.3% three or more (Kessler, Berglund, et al., 2005). The most prevalent class of disorders was anxiety disorders (28.8%), followed by behavior disorders (24.8%), mood disorders (20.8%), and substance use disorders (14.6%). The most prevalent individual lifetime disorders were major depressive disorder (16.6%), alcohol abuse (13.2%), specific phobia (12.5%), and social phobia (12.1%). These relative prevalence estimates are quite similar to those found in comparable surveys in other countries (Kessler, Berglund, et al., 2005).

Age-of-Onset Distributions

Median ages-of-onset (AOO; i.e., the 50th percentile on the AOO distribution) of lifetime disorders, which were assessed retrospectively, were estimated to be earlier for anxiety disorders (age 11) and behavior disorders (age 11) than for substance use disorders (age 20) or mood disorders (age 30) (Kessler, Berglund, et al., 2005). AOO also was found to be concentrated in a very narrow age range for most disorders, with the inter-quartile range (IQR; the number of years between the 25th and 75th percentiles of the AOO distributions) only 8 years (ages 7–15) for behavior disorders, 9 years (ages 18–27) for substance use disorders, and 15 years (ages 6–21) for anxiety disorders. The AOO IQR was wider, though, for mood disorders (25 years, ages 18–43), which means that onset of mood disorders occurs over a wider part of the life cycle than the other disorders. These AOO results are quite similar to those found in comparable surveys in other countries (Kessler et al., 2007).

Cohort Effects

Discrete-time survival analysis was used to predict lifetime risk of mental disorders in various age groups in the NCS-R (Kessler, Berglund, et al., 2005). Generally significant positive associations were found between recency of cohorts and risk of mental disorders; that is, risk is greater in more recent than earlier cohorts when lifetime prevalence is compared across the different cohorts at the same point in their life course. A "cohort" was defined for this purpose as the people who were born in a particular set of years. Retrospective reports of lifetime occurrence and age-of-onset of disorders were then used to compare lifetime prevalence estimates as of a given year of life across cohorts. One possible explanation for these apparent cohort effects is that lifetime risk might actually be constant across cohorts but appear to vary with cohort because onsets have occurred earlier in more recent than later cohorts. Another possibility is that mortality might have an increasing impact on sample selection bias as age increases. To study these possibilities, the cohort model was examined to see whether inter-cohort differences in risk decrease significantly with increasing age. There was no evidence of decreasing cohort effects with increasing age for anxiety or mood disorders. For substance use disorders, in contrast, higher cohort effects were found in the teens and 20s than in either childhood or the 30s through 50s (Kessler, Berglund, et al., 2005), indicating that the changes in risk of these disorders over successive generations are concentrated in this age range.

Socio-demographic Correlates

Survival analyses that adjusted for cohort effects found women to have significantly higher risk of anxiety and mood disorders than men and men to have significantly higher risk of externalizing and substance use disorders than women in the NCS-R (Kessler, Berglund, et al., 2005). Non-Hispanic Blacks and Hispanics were found to have significantly lower risk of anxiety, mood, and substance use disorders (the latter only among Non-Hispanic Blacks) but not externalizing disorders than Non-Hispanic Whites. Education was found to be inversely related to risk of substance use disorders. Three out of four disorder classes (not externalizing disorders) were associated positively with marital disruption.

To examine whether the increasing prevalence of disorders in recent cohorts is concentrated in certain subgroups, interactions between socio-demographic correlates and cohort were studied. At least one significant interaction was found for each socio-demographic predictor although patterns were generally not consistent in these interactions. Of note, gender differences in anxiety, mood, and externalizing disorders did not differ across cohort, but women were found to be more similar to men in substance use disorders in recent than earlier cohorts. Significant associations of low education and not being married with greater substance use disorders were observed only in recent cohorts, suggesting an increasing concentration of substance use disorders in the lower socio-economic strata in recent decades.

Twelve-Month Disorders

Prevalence

The most common 12-month disorders in the NCS-R were specific phobia (8.7%), social phobia (6.8%), and major depressive disorder (6.7%) (Kessler, Chiu, et al., 2005) (Table 9.1). Among classes, anxiety disorders were estimated to be the most prevalent (18.1%), followed by mood disorders

Table 9.1 Twelve-month prevalence and severity of DSM-IV/CIDI disorders in the NCS-R ($n = 9282$)

	Total		Severity[a]					
			Serious		Moderate		Mild	
	%	(SE)	%	(SE)	%	(SE)	%	(SE)
I. Anxiety disorders								
Panic disorder	2.7	(0.2)	44.8	(3.2)	29.5	(2.7)	25.7	(2.5)
Agoraphobia without panic	0.8	(0.1)	40.6	(7.2)	30.7	(6.4)	28.7	(8.4)
Specific phobia	8.7	(0.4)	21.9	(2.0)	30.0	(2.0)	48.1	(2.1)
Social phobia	6.8	(0.3)	29.9	(2.0)	38.8	(2.5)	31.3	(2.4)
Generalized anxiety disorder	3.1	(0.2)	32.3	(2.9)	44.6	(4.0)	23.1	(2.9)
Posttraumatic stress disorder[b]	3.5	(0.3)	36.6	(3.5)	33.1	(2.2)	30.2	(3.4)
Obsessive compulsive disorder[c]	1.0	(0.3)	50.6	(12.4)	34.8	(14.1)	14.6	(5.7)
Separation anxiety disorder[d]	0.9	(0.2)	43.3	(9.2)	24.8	(7.5)	31.9	(12.2)
Any anxiety disorder[e]	18.1	(0.7)	22.8	(1.5)	33.7	(1.4)	43.5	(2.1)
II. Mood disorders								
Major depressive disorder	6.7	(0.3)	30.4	(1.7)	50.1	(2.1)	19.5	(2.1)
Dysthymia	1.5	(0.1)	49.7	(3.9)	32.1	(4.0)	18.2	(3.4)
Bipolar I-II disorders	2.6	(0.2)	82.9	(3.2)	17.1	(3.2)	0.0	(0.0)
Any mood disorder	9.5	(0.4)	45.0	(1.9)	40.0	(1.7)	15.0	(1.6)
III. Behavior disorders								
Oppositional-defiant disorder[d]	1.0	(0.2)	49.6	(8.0)	40.3	(8.7)	10.1	(4.8)
Conduct disorder[d]	1.0	(0.2)	40.5	(11.1)	31.6	(7.5)	28.0	(9.1)
Attention deficit hyperactivity disorder[d]	4.1	(0.3)	41.3	(4.3)	35.2	(3.5)	23.5	(4.5)
Intermittent explosive disorder	2.6	(0.2)	23.8	(3.3)	74.4	(3.5)	1.7	(0.9)
Any behavior disorder[d,f]	8.9	(0.5)	32.9	(2.9)	52.4	(3.0)	14.7	(2.3)
IV. Substance use disorders								
Alcohol abuse[b]	3.1	(0.3)	28.9	(2.6)	39.7	(3.7)	31.5	(3.3)
Alcohol dependence[b]	1.3	(0.2)	34.3	(4.5)	65.7	(4.5)	0.0	(0.0)
Drug abuse[b]	1.4	(0.1)	36.6	(5.0)	30.4	(5.8)	33.0	(6.8)
Drug dependence[b]	0.4	(0.1)	56.5	(8.2)	43.5	(8.2)	0.0	(0.0)
Any substance use disorder[b]	3.8	(0.3)	29.6	(2.8)	37.1	(3.5)	33.4	(3.2)
V. Any disorder								
Any[e]	26.2	(0.8)	22.3	(1.3)	37.3	(1.3)	40.4	(1.6)
One disorder[e]	14.4	(0.6)	9.6	(1.3)	31.2	(1.9)	59.2	(2.3)
Two disorders[e]	5.8	(0.3)	25.5	(2.1)	46.4	(2.6)	28.2	(2.0)
Three or more disorders[e]	6.0	(0.3)	49.9	(2.3)	43.1	(2.1)	7.0	(1.3)

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[a] The definitions of serious, moderate, and mild disorders are presented elsewhere (Kessler, Chiu et al., 2005). Percentages in the three severity columns are repeated as proportions of all cases and sum to 100% across each row

[b] Assessed in the Part II sample ($n = 5692$)

[c] Assessed in a random one-third of the Part II sample ($n = 1808$)

[d] Assessed in the Part II sample among respondents aged 18–44 years ($n = 3199$)

[e] Estimated in the Part II sample. No adjustment is made for the fact that one or more disorders in the category were not assessed for all Part II respondents

[f] The estimated prevalence of any behavior disorder is larger than the sum of the individual disorders because the prevalence of intermittent explosive disorder, the only behavior disorder that was assessed in the total sample, is reported here for the total sample rather than for the sub-sample of respondents among whom the other behavior disorders were assessed (Part II respondents in the age range 18–44). The estimated prevalence of any externalizing disorder, in comparison, is estimated in the latter sub-sample. Intermittent explosive disorder has a considerably higher estimated prevalence in this sub-sample than in the total sample

(9.5%), externalizing disorders (8.9%), and substance use disorders (3.8%). The 12-month prevalence of any disorder was 26.2%, with over half of cases (14.4% of the total sample) having only one disorder and smaller proportions having two (5.8%) or more (6.0%).

Severity

Of 12-month cases in the NCS-R, 22.3% were classified serious, 37.3% moderate, and 40.4% mild using definitions of those terms described in detail elsewhere (Kessler, Chiu, et al., 2005). Having a serious disorder was strongly related to comorbidity, with 9.6% of those with one diagnosis, 25.5% with two, and 49.9% with three or more diagnoses classified as serious cases. Among disorder classes, mood disorders had the highest percentage of serious cases (45.0%) and anxiety disorders the lowest (22.8%). The anxiety disorder with the greatest proportion of serious cases was obsessive compulsive disorder (50.6%), while bipolar disorder had the highest proportion of serious case (82.9%) among mood disorders, oppositional-defiant disorder the highest (49.6%) among externalizing disorders, and drug dependence the highest (56.5%) among substance use disorders.

Trends

The instrument used to assess disorders in the NCS-R was somewhat different from the one used a decade earlier in the NCS. The NCS-R used DSM-IV criteria while the NCS used the earlier DSM-III-R criteria (American Psychiatric Association, 1987). The NCS-R also expanded the number of disorders assessed, most notably including a wider range of behavior disorders than the NCS. However, it was nonetheless possible to compare trends in prevalence by focusing on the disorders assessed in comparable ways in the two surveys and by imputing missing values for other disorders from information in the NCS-R about the associations of these newly, differently assessed disorders with disorders that were assessed comparably in both surveys. A more detailed description of the imputation procedures is reported elsewhere (Kessler, Demler, et al., 2005). Using these methods, we found that 12-month prevalence of any DSM-IV disorder did not change significantly in the decade between the two surveys (29.4% in the NCS vs. 30.5% in the NCS-R, $p=0.52$). Nor was there a significant change in the prevalence of disorders classified serious (5.3% vs. 6.3%, $p=0.27$), moderate (12.3% vs. 13.5%, $p=0.30$), or mild (11.8% vs. 10.8%, $p=0.37$) when considered separately. There were no statistically significant interactions between time and socio-demographics in predicting prevalence (Kessler, Demler, et al., 2005), suggesting that not only prevalence but also socio-demographic distributions remained stable over this interval of time.

Comorbidity Among Disorders

Bivariate Cross-Sectional Comorbidity

Investigation of correlations among 12-month DSM-IV disorders in the NCS-R documented consistently positive (98% of correlations) and statistically significant (72% of correlations) associations (Kessler, Chiu, et al., 2005). The 12 highest correlations, each exceeding 0.60, involve well-known syndromes: bipolar disorder (major depressive episode with mania-hypomania), double depression (major depressive episode with dysthymia), anxious depression (major depressive episode with generalized anxiety disorder), comorbid mania-hypomania and attention-deficit/hyperactivity disorder, panic disorder with agoraphobia, comorbid social phobia with agoraphobia, and comorbid substance use disorders (both alcohol abuse and dependence with drug abuse and dependence).

Multivariate Comorbidity

These NCS-R results are consistent with much previous epidemiological research in finding that comorbidity is the norm among common mental disorders, with more than 50% of people with a mental disorder in a given year having multiple past-year disorders (Demyttenaere et al., 2004; Kessler, Chiu, et al., 2005). The structure of this comorbidity has been the subject of considerable interest over the past decade, with numerous researchers using factor analysis to document that associations among anxiety, mood, behavior, and substance use disorders can be accounted for by correlated latent predispositions to what are known as *internalizing* disorders (i.e., characterized by internal feelings of distress, as in anxiety and mood disorders) and *externalizing* disorders (i.e., characterized by behavioral difficulties, as in disruptive behavior disorders and substance use disorders) (Wittchen et al., 2009). The internalizing dimension is sometimes further divided into secondary dimensions of fear (e.g., panic, phobia) and distress (e.g., major depressive episode, generalized anxiety disorder) (Slade & Watson, 2006), although these secondary dimensions are unstable (Beesdo-baum et al., 2009).

Strong comorbidity within the internalizing and externalizing domains raises the question of whether common risk factors exist for the entire set of disorders within either or both of these domains and, if so, whether known risk factors for particular individual disorders are actually risk factors for these broader predispositions. The issue of generality versus specificity of risk factors is of considerable importance because a number of hypotheses about causal pathways posit the existence of very specific associations between particular risk factors and particular outcomes. These theories would be called into question if risk factors have less specific predictive effects (Green et al., 2010). In addition, evidence that a risk factor had a broad effect on a wide range of disorders would increase interest in that risk factor as an intervention target (Mrazek & Haggerty, 1994).

Although the use of latent variable models to study risk factor specificity is only in its infancy, its value is already apparent. For example, Kramer and colleagues (Kramer, Krueger, & Hicks, 2008) found that the widely observed association of female gender with depression became statistically insignificant with controls for latent internalizing and externalizing dimensions, suggesting that gender is more directly associated with these overall latent dimensions than with depression or any other specific disorder within these dimensions. In another example, Kessler and colleagues (Kessler et al., 2010) found that the effects of childhood adversities on onset of specific mental disorders were largely mediated by their more direct effects on predispositions for internalizing and externalizing disorders.

These risk factor studies treat latent measures of internalizing and externalizing predispositions as independent variables in causal models that predict individual disorders, but most are limited to cross-sectional data. However, longitudinal data have been used to determine whether the structure of internalizing and externalizing disorders is stable over time (Wittchen et al., 2009), to examine temporal progression (Fergusson, Horwood, & Ridder, 2007) or sequencing (Copeland, Shanahan, Costello, & Angold, 2009) between earlier and later disorders, documenting strong persistence of disorders over time and predictive associations between some but not other temporally primary and later disorders. For example, Fergusson and colleagues (Fergusson et al., 2007) found that childhood conduct disorder but not Attention Deficit Hyperactivity Disorder (ADHD) predicted subsequent onset of substance use disorders, while Beesdo and associates found that temporally primary social anxiety disorder predicted subsequent onset and persistence of major depression (Beesdo et al., 2007). However, these studies did not investigate whether these associations were due to effects of latent internalizing or externalizing predispositions.

It is generally recognized that knowing the effects of latent predispositions to mental disorders on onset and progression of individual disorders could be very useful in identifying modifiable risk pathways (Angold, Costello, & Erkanli, 1999; Jensen, 2003). However, the confirmatory factor analysis models that have dominated the literature on latent variables in comorbidity do not allow this kind of investigation, insofar as they cannot break point-in-time prevalence data into its two components of lifetime risk and persistence. In contrast, when data are available on age-of-onset (AOO) and persistence of multiple disorders, this decomposition can be made by using survival analysis to carry out separate studies of (1) the associations of prior lifetime disorders with subsequent first onset of some other disorder and (2) the associations of lifetime comorbidity with persistence of that other disorder.

Recent analyses of the NCS-R and parallel surveys carried out in other countries used these models to study the temporal unfolding of lifetime comorbidity (Kessler, Cox, et al., 2011; Kessler, Ormel, et al., 2011). The technicalities of the estimation procedures are too complex to describe here but are described in detail elsewhere (Kessler, Petukhova, & Zaslavsky, 2011). Preliminary survival analyses predicted first onset of each disorder from prior lifetime onset of the other disorders. Ninety-eight percent of the survival coefficients were positive and 95.1% significant. Within-domain, time-lagged associations were generally stronger than between-domain associations, which means that progression of disorders over time follows the same basic internalizing versus externalizing distinction that can be seen in patterns of disorder co-occurrence at a point in time.

The latent variable model was then estimated and shown to fit the data much better than the observed variable model. The most important predictors of the latent variables were specific phobia and obsessive compulsive disorder for the internalizing dimension and hyperactivity disorder and oppositional defiant disorder for the externalizing dimension. Controls for the latent variables explained the vast majority of the originally significant time-lagged associations among observed disorders, raising the strong possibility that common causal pathways account for most comorbidity among these disorders and suggesting that common pathways defined by latent internalizing and externalizing variables (and possible expansion of these latent variables to include more refined distinctions among disorders) should be the focus of future research on the development of comorbidity.

It is also important to recognize the existence of several important residual associations that cannot be explained by the mediating role of latent predispositions. As noted above, latent variable models can be useful in helping to determine when associations thought to be specific (e.g., a positive association between female gender and depression) are really part of a more general pattern (e.g., a positive association between female gender and internalizing disorders, with no special elevation of the association with depression compared to other internalizing disorders). The flip side of that issue is that latent variable models also provide a unique way to search through a large number of associations to distinguish the few that are specific from the larger number that are general.

Social Consequences

It is important to recognize that the associations between acquired social statuses (e.g., socioeconomic status, marital status, employment status) and mental disorders could be due either to causal influences of the statuses (or their correlates) on the disorders, causal influences of the disorders (or their correlates) on the statuses, or some combination. As reviewed in the chapters later in this section, most sociological research on mental disorders has emphasized the importance of social factors as causes. We know, for example, that a wide variety of stressful experiences can provoke mood disorders (Hammen, 2005; Kendler & Gardner, 2011). However, it is important to appreciate the possibility that mental disorders can also have adverse effects on acquired social statuses.

A number of recent studies on this issue have documented that mental disorders have substantial personal costs for the individuals who experience them, as well as for their families and communities in terms of finances (Levinson et al., 2010) and role functioning (Alonso et al., 2010). Analyses in the NCS-R and parallel surveys also have shown that early onset mental disorders are strongly related to subsequent teen childbearing, school dropout, marital instability, and long-term financial adversity (Breslau, Lane, Sampson, & Kessler, 2008; Breslau et al., 2011). These results document hidden societal costs of mental disorders not only in the direct sense that the outcomes documented here are associated with increased use of entitlement programs, such as unemployment and welfare, that are paid for by all taxpayers but also in the indirect sense of threats to our ability to maintain an educated and well-functioning citizenry and work force. These costs need to be taken into consideration in policy evaluations of the societal cost-benefit ratio of providing mental health treatment irrespective of ability to pay compared to the costs of failing to do so. They also need to be taken into consideration before interpreting significant associations between social statuses and mental disorders as necessarily documenting a causal impact of the statuses on the disorders.

Another type of social cost involves workplace productivity. There is increasing awareness that people with mental disorders have considerably more work loss days and impairments in on-the-job work performance than other workers (Kessler, Adler, et al., 2005; Kessler et al., 2006). Mental disorders might also be related to workplace accidents and voluntary job leaving, both of which are very costly for employers. These considerations have led some commentators to argue that employer-sponsored health insurance that offers generous provisions for mental health coverage should be seen as an investment opportunity rather than a cost of doing business (Kessler & Stang, 2006). Some sense of the magnitude of the lost productivity due to mental disorders can be seen in the NCS-R analysis of average numbers of monthly sickness absence days reported by all respondents associated with mental disorders (Merikangas et al., 2007), which found that mental disorders account for more than half as many such days as all commonly occurring chronic physical disorders.

Overview

The results reviewed here show that mental disorders are highly prevalent in the general population. Although no truly comprehensive assessment of all Axis I and Axis II disorders has ever been carried out in a general population sample, it is almost certainly the case that such a study would find that a majority of the population met criteria for at least one of these disorders at some time in their life. Such a result might initially seem remarkable, but it is actually quite easy to understand, as the DSM classification system is very broad and includes a number of disorders that are usually self-limiting and not severely impairing. It should be no more surprising to find that half the population has met criteria for one or more of these disorders at some time in their life than to find that the vast majority of the population has had the flu or measles or some other common physical malady at some time in their life.

The more surprising result is that although many people have been touched by mental illness at some time in their life, the major burden of mental disorder is concentrated in the relatively small subset of people who are highly comorbid. A pile-up of multiple disorders emerges as the most important defining characteristic of serious mental illness. This result points to the previously underappreciated importance of research on the primary prevention of secondary disorders. It also means that epidemiologic information about the prevalence of individual disorders is much less important than information on the prevalence of functional impairment, comorbidity, and chronicity. These are topics that have not traditionally been the focus of psychiatric epidemiology but are likely to become so in the years ahead as we develop increased understanding of patterns and predictors of comorbidity among mental disorders. The results reported here on comorbidity in the NCS-R provide a firm foundation for these future studies but represent only a beginning step in what will almost certainly become an important area of investigation in the coming years.

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Chapter 10
Age, Aging, and Mental Health

Kenneth F. Ferraro and Lindsay R. Wilkinson

Abbreviations

AD	Alzheimer's disease
CES-D	Center for Epidemiological Studies Depression Scale
DSM	Diagnostic and Statistical Manual of Mental Disorders
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders Fourth Edition
NCS-R	National Comorbidity Survey Replication
SES	Socioeconomic status
GSS	General Social Survey

It has often been said that "measurement is the basis of all science," and this is especially pertinent for the study of aging and mental health. As described in other chapters in this volume, mental health encompasses an array of phenomena ranging from positive affect to major depression, and each may have distinct relationships with age. Moreover, age itself is at first glance a very simple variable—quantifying the amount of time since birth—but it also reflects other phenomena because it represents the intersection of biography and history. For instance, social change in physical health may be associated with age differences in mental health (i.e., rising longevity and gains in health status may lead to better mental health). As such, the study of aging and mental health raises key questions that permeate and help guide our review: What is the meaning of age differences in mental health? Might age differences in mental health actually be due to social forces, including enduring social inequalities and social change? Does the aging process lead to predictable changes in the various domains of mental health? Finally, what theoretical and methodological innovations will be most helpful to advance our understanding of the relationship between age and mental health?

To address these questions, this chapter is organized into four sections: (1) overview of the epidemiology of mental health and aging, (2) mental health inequalities over the life course, (3) critique of sociological theories for studying mental health and aging, and (4) new directions for research on this topic.

K.F. Ferraro (✉) • L.R. Wilkinson
Department of Sociology and Center on Aging and the Life Course, Purdue University,
700 West State Street, West Lafayette, IN 47907-2059, USA
e-mail: ferraro@purdue.edu

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Epidemiology of Aging and Mental Health

To capture core empirical generalizations from sociological research on mental health and aging, it is essential that one first clarifies the meaning of mental health. Although there are many ways to define and measure the concept, we use a two-dimensional scheme. First, there is the long-standing practice of identifying *mental disorder* or *disease,* most often defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM; American Psychiatric Association [APA], 2000). For older adults, studying mental disorder has led to abundant attention to depression, which is seen as quite prevalent at advanced ages. It also includes research on age differences in anxiety, negative affect, substance abuse, and suicide. Akin to medical models of health, the presumption is that avoiding these mental disorders is a sign of overall mental well-being.

Second, the emphasis on studying mental disorder and pathology has sparked concern that there has been insufficient attention to the *positive elements of mental health* (Horwitz, 2002). Questioning the assumption that the absence of mental disorder is a sign of mental health, scholars have sought to more directly tap subjective well-being, privileging a more comprehensive view of mental health (Aneshensel, 2005) and/or a positive-psychology approach (Payton, 2009). In this approach, overall mental health is the object of study, reflected in subjective well-being, positive affect, and happiness.

The tension between the two approaches may, in some ways, be good for the epidemiology of mental health, especially when analyzing age differences in the phenomena at hand. Studies of both elements of mental health are not only important in order to draw more coherent explanations regarding the effect of age on mental health but, without adequate examination of both, our view of this relationship is likely to be incomplete. Of course, there are some phenomena that defy easy classification as either a negative or positive element of mental health, but the basic distinction recognizes the multidimensionality of mental health and provides a convenient way to organize this review (Keyes, 2002).

Age and Mental Disorder: Negative Elements of Mental Health

As one surveys the universe of sociological research on mental disorder or negative elements of mental health, depression and depressive symptoms are the most widely studied outcomes—although there are differences of opinion on which measurement protocol works best. Depression, also known as major or clinical depression, actually refers to a phenomenon that is measured over time and includes a "clinical course" of one or more major depressive episodes (APA, 2000, p. 369). Implied in this definition is that depression is more than an occasional bout of negative affect, which is a very common, perhaps universal, human experience. Rather, depression refers to a more severe pattern of negative affect characterized by a loss of interest or pleasure in daily activities. By contrast, depressive symptoms, as commonly measured in survey research, refer to the current sum of indicators of depressed mood. As originally stated by Radloff (1977, p. 385), the widely used Center for Epidemiological Studies Depression Scale (CES-D) "was designed to measure current level of depressive symptomatology, with emphasis on the affective component, depressed mood." In simple cross-sectional studies, a count of depressive symptoms is a good predictor of clinical depression but falls short of actually measuring depression per se because it is void of the clinical course of the condition, and spans a broader range of severity.

The distinction between clinical or major depression and depressive symptoms is important, especially when considering age differences in the phenomena. Until recently, most sociological research focused on depressive symptoms and provided evidence of a j- or u-shaped relationship with age (Kessler, Foster, Webster, & House, 1992; Mirowsky & Ross, 1992; Ross & Mirowsky, 2008; Schieman, Van Gundy, & Taylor, 2001). Although some studies report a negative linear relationship (e.g., Schieman, Van Gundy, & Taylor, 2002), most report that depressive symptoms are high during young adulthood, lowest in middle age, and highest among the oldest old. When studying older adults only, this relationship between age and depressive symptoms is often reported as positive (Yang, 2007).

In discussing the transition from early adulthood to middle age, researchers speculate that early adulthood is marked by a relative lack of experience coping with the numerous life transitions that occur at that time, whereas middle age is associated with greater *maturity.* By contrast, the rise in depressive symptoms during later life is often attributed to multiple age-related declines, especially declines in physical health, cognitive impairment, and the size of social networks (Blazer, 2003; Kelley-Moore & Ferraro, 2005; Miech & Shanahan, 2000). More generally, scholars assert that the relationship between age and depressive symptoms is shaped by life course patterns, especially status changes in employment, marital status, and financial well-being (Mirowsky & Ross, 1992). As individuals grow older, they generally transition out of some important social roles, resulting in higher levels of depressive symptoms (Ross & Mirowsky, 2008). Others reduce their risk of depressive symptoms by engaging in compensatory mechanisms such as volunteering (Li & Ferraro, 2005). In short, most research reveals a curvilinear relationship between age and depressive symptoms, with the highest levels of depression encountered in the oldest ages (80+).

Although some investigators measure depressive symptoms and refer to it as depression, this may be misleading (Payton, 2009). As noted earlier, depression (or clinical depression) must include some sense of enduring mood disorder—a pattern of negative affect lasting a minimum of 2 weeks. This is most often identified in clinical settings, thereby limited to people who acknowledge the condition and both seek and obtain assistance. There are some population surveys that attempt to measure major depression, most notably the National Comorbidity Survey Replication (NCS-R). The findings from the NCS-R, however, are inconsistent with those from dozens of studies of depressive symptoms: both lifetime and recent major depression "were significantly less prevalent among respondents aged 65 years than among younger adults" (Kessler et al., 2010, p. 225). And this conclusion is not limited to the NCS-R. Indeed, in a major review essay by Blazer and Hybels (2005, p. 1249), they conclude that "older adults appear to be at greater risk of major depression from some biological causes … yet the frequency of major depression is lower, especially in Western countries." Using published data from the National Comorbidity Survey Replication (NCS-R), we plot age differences in the lifetime prevalence of depressive disorder, and selected other disorders, in Fig. 10.1. Age differences in the 12-month prevalence of various disorders are presented in Fig. 10.2. In both figures, the conclusion is clear: older adults have the lowest prevalence of major depressive disorder.

When considering research on age differences in what is commonly referred to as "depression," one arrives at contradictory conclusions based on different measures of the phenomena. If one relies on studies tapping depressive symptoms, the conclusion is that older people are more likely to be depressed: "Average levels of depression rise with age over 60" (Mirowsky & Ross, 1992, p. 202). By contrast, studies of clinical or major depression reach the opposite conclusion: 12-month prevalence of depression is highest among younger adults (ages 18–34) and lifetime prevalence is highest among persons 35–49 years of age (Kessler et al., 2010).

So what is the plausible interpretation of what appears to be contradictory evidence on age differences in "depression?" Quite simply, measures of depressive symptoms probably tap less serious forms of mood disorders, reflecting a general "predisposition for anxiousness" (Orme, Reis, & Herz, 1986). By contrast, clinical or major depression taps more severe types of mental disorder. Age differences in these phenomena, then, reflect a higher prevalence of low-grade depressive symptoms among older adults—probably due to health problems and role transitions—but a lower prevalence of high-grade depressive disorder. The public health concern for older adults being at risk for depression

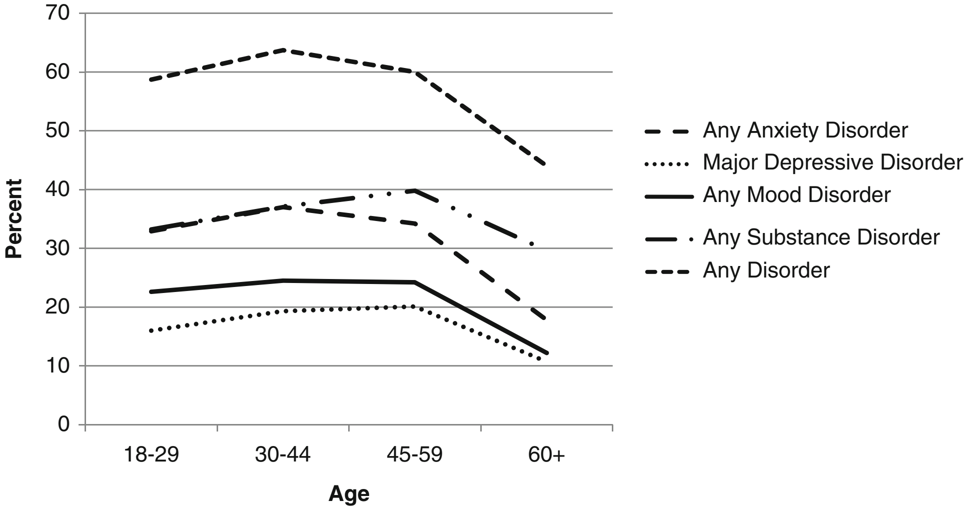

Fig. 10.1 Age differences in lifetime prevalence of mental disorders (compiled by the authors from the National Comorbidity Survey Replication, http://www.hcp.med.harvard.edu/ncs/ftpdir/table_ncsr_LTprevgenderxage.pdf)

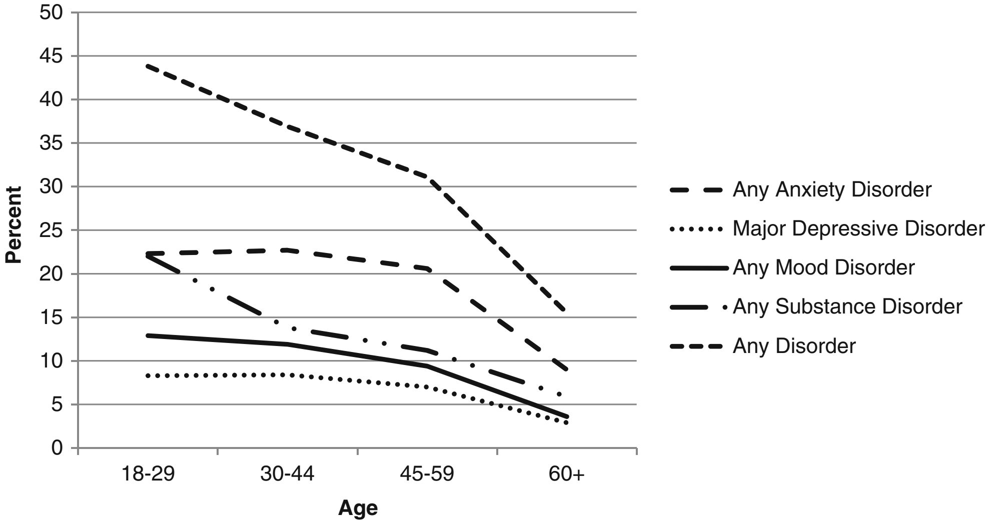

Fig. 10.2 Age differences in 12-month prevalence of mental disorders (compiled by the authors from the National Comorbidity Survey Replication, http://www.hcp.med.harvard.edu/ncs/ftpdir/table_ncsr_12monthprevgenderxage.pdf)

is well-founded, but older adults appear adept at preventing the modest malaise from ballooning into major depression. As Blazer and Hybels (2005, p. 1249) assert, "older adults who are cognitively intact and who do not suffer from significant functional impairment may be protected psychologically due to factors such as socioemotional selectivity and wisdom." Selection factors may also be operant: middle-aged persons with the more severe manifestations of mood disorders may be less likely to survive into advanced ages.

Beyond depressive symptoms, there are other mood disorders that are studied in large epidemiologic studies of mental health. The prevalence of most other mood disorders is also generally lower in persons 60 years or older than in younger ages. For instance, 12-month prevalence of bipolar disorder is most common among younger adults (18–29)—about six times the rate for persons 60 years or older (National Comorbidity Survey Replication [NCS-R], n.d.).

The NCS-R also measured eight different anxiety disorders, including panic and obsessive-compulsive disorders. In no case was the 12-month or lifetime prevalence of these eight disorders highest among older people. Rather, the prevalence was higher for most anxiety disorders during middle age (i.e., ages 45–59 for five of the anxiety disorders) (NCS-R, n.d.).

Anger is not a disorder per se, but intense anger clearly taps the negative side of mental health. In Schieman's (1999) study of two samples—a national US sample and a regional sample from Southwestern Ontario—he found that older adults generally had the lowest levels of anger. Although 30- to 39-year-old people had the highest levels of anger, the overall pattern was a negative relationship between age and anger. Similarly, Simon and Lively (2010) identify a negative relationship between age and anger using data from the 1996 GSS Emotions Module. Indeed, the evidence is compelling that anger is lower in later life than in either early adulthood or middle age (Mirowsky & Ross, 1999; Schieman, 2010).

Schizophrenia is a very severe form of mental illness, characterized by impairment in discerning what is real or unreal, but it has a very low prevalence in the population—typically estimated at less than 1%. Moreover, the onset of schizophrenia is usually during adolescence or early adulthood. There are very few older persons with schizophrenia, but generally they are persons who developed schizophrenia earlier in life and survived into later life (Ibrahim, Cohen, & Ramirez, 2010).

In considering the negative side of mental health, suicide is often seen as the apex of psychological disorder—although some people question this characterization for older adults facing chronic illnesses. Age differences in adult suicide vary in a nonlinear way, with the highest rates among persons aged 45–64 (16.8 per 100,000), 75–84 (16.3), and 85+ (15.6) (National Center for Health Statistics, 2011). Interestingly, the suicide rate for age group 65–74 is 12.6 per 100,000. Thus, the rate peaks in advanced middle age, drops from 65 to 74, then rises in advanced old age. Although the rate for persons aged 15–24 is much lower (9.7 per 100,000), this rate makes it the third leading cause of death in this age group. For most age groups, we also know that there is an ecological component to suicide, with higher rates in the western and northwestern regions of the USA as well as in central Florida.

One type of mental disorder that is highly visible in modern societies is dementia. It actually refers to a set of symptoms or syndromes, and the primary characteristic is impaired cognitive ability, especially memory and attention. Alzheimer's disease (AD) is viewed as a prevalent form of mental disorder in modern societies, but it is actually quite difficult to diagnose because one must identify the presence of neuritic plaques and neurofibrillary tangles (Wilson, 2008). Many other forms of impaired cognitive functioning may be due to cerebral infarction, brain injury, or polypharmacy. The prevalence of dementia in the USA is estimated at about 5% for persons in their 70s but up to 37% for persons 90 years of age or older (Plassman et al., 2007).

Age and Positive Elements of Mental Health

Research on the positive elements of mental health provides a good counterbalance to the epidemiology of mental disorders by age, but the stock of knowledge on mental health and aging is far less developed. Although we have multiple versions of the DSM, there is no comparable manual for mental health. Rather, there are studies of various facets of mental health, and assessing age differences in them is more difficult for at least two reasons. First, many studies of these positive elements of mental health, such as subjective well-being, rely on very simple measures, perhaps single indicators of a concept (George, 2010). Second, there is considerable debate regarding the core concepts of interest and how to best measure them (Keyes, 2002; Payton, 2009; Ryff, 1989).

If positive elements of mental health are the focus, positive affect is one of the most direct measures of the concept, often assessed with five items in the affect-balance scale (e.g., During the past week did you feel particularly excited or interested in something? That things were going your way?). Considerable prior research reveals that positive affect increases with age (e.g., Mroczek & Kolarz, 1998; Ross & Mirowsky, 2008; Ryff, 1989), but there are exceptions, with studies reporting that older people have lower levels of positive affect (Diener & Suh, 1998) or less intense affect (Diener, Sandvik, & Larsen, 1985). It is also possible that the relationship between age and positive affect may be nonlinear (Charles, Reynolds, & Gatz, 2001) or conditional on sex: fairly linear and positive for men; curvilinear for women, whereby age is negatively related to positive affect until advanced age (Mroczek & Kolarz, 1998). Perhaps the best conclusions on positive affect are twofold: the relationship with age is (a) modest (many studies report a correlation less than 0.2) and (b) complex (often driven by interactions between personal and contextual factors).

A similar conclusion is often reached by studies of single-item measures of happiness, which are often included in public opinion polls. For instance, an early study attempting to address the question with repeated cross-sections of multiple surveys found that happiness rises slightly during adulthood (Witt, Lowe, Peek, & Curry, 1980) and more recent studies concur (Pinquart & Sörensen, 2000). Yang (2008) used more than 30 years of the General Social Survey to examine age differences as well as influences due to period and cohort. Her approach was distinct in that she focused on people who reported being "very happy" but also found that happiness rises with age and levels off somewhat in advanced ages. Using hierarchical age-period-cohort models, she also found that there are period effects: the Baby Boom (born between 1945 and 1960) was least likely to report being very happy. Still, the main finding is that older people are generally happier than younger people.

Studies of life satisfaction generally show a different pattern: a rise in life satisfaction during adulthood that continues until advanced age (Mroczek & Spiro, 2005). Declines are often observed by 80 years of age, but longitudinal evidence from the Berlin Aging Study reveal that the decline may actually be due to proximity to death (Gerstorf, Ram, Röcke, Lindenberger, & Smith, 2008).

In a widely cited article, Ryff (1989) critiqued many of the conventional measures of psychological well-being and proposed alternative concepts and measures to tap the positive side of mental health. She reported that there were notable age differences in several dimensions that were fairly linear: decline in personal growth and an increase in environmental mastery. By contrast, other positive elements of mental health manifest nonlinear trends: both purpose in life and autonomy rise in middle age but decline in later life.

To summarize, the relationships between age and positive elements of mental health vary across measures but there is clear evidence that positive affect, happiness, and environmental mastery rise during adulthood and remain high. Life satisfaction, purpose in life, and autonomy also rise in middle age but generally decline in later life. At the same time, the magnitude of the differences is not strong and, as we describe in the following section, many of these relationships are contingent on other characteristics.

Mental Health Inequalities over the Life Course

One of the themes in our review of the epidemiology of mental health and aging is that the age patterns may be contingent on other characteristics. Gerontologists have long held a scientific skepticism about age as an independent variable, and our review shows the limits of its explanatory power. Thus, in this section, we focus on the contingencies associated with age differences, and we do so by drawing on the life course perspective (Elder, 1998; Elder, Johnson, & Crosnoe, 2003; Lynch & Smith, 2005). This perspective emphasizes the life course timing of exposures and the onset of mental health outcomes, acknowledging the possibility of long latency periods and variations in the impact of an exposure depending on stage of life.

Two competing hypotheses are often articulated in studies on stratification and aging: one is the cumulative advantage hypothesis, which predicts divergence in mental health trajectories over time; the other is the age-as-leveler hypothesis, which assumes convergence in trajectories with increasing age (Kim & Durden, 2007). The cumulative advantage hypothesis is largely based on the idea that the resources and experiences that separate individuals early in life accumulate throughout the life course, resulting in diverging mental health trajectories. By contrast, the age-as-leveler hypothesis views old age as a period of "frailty" that reduces the unequal balance of resources between advantaged and disadvantaged individuals (Kim & Durden).

Aging, Mental Health, and the Axes of Stratification

Although stratification often refers to hierarchies based on social class, typically measured as socioeconomic status, there are actually many overlapping systems of stratification in all societies. Social patterns of differential access to status, resources, and power fall along many axes such as socioeconomic status (SES), race, ethnicity, gender, age, and religion. The inequality principle behind overlapping stratification systems is that being disadvantaged on multiple axes will likely increase exposure to mental health risks and may exacerbate the effects of those exposures on mental health (Thoits, 2010). We briefly consider three axes, which have received appreciable research attention in the past two decades, to aid our interpretation of the age differences and to advance a life course view of mental health.

Socioeconomic Status

The study of SES and mental health has a long history in sociology, and most studies reveal that mental health problems are more prevalent among lower status persons (see Chaps. 11 and 12). This is especially the case for the most serious disorders, such as schizophrenia, which are more likely among persons of lower status. For many mood and anxiety disorders, however, the association with SES is weaker. Not surprisingly, higher status persons are more likely than lower status persons to report positive elements of mental health such as happiness, affect, and life satisfaction.

From a life course perspective, the relationship between SES and mental health is often analyzed in terms of the onset and duration of mental health problems. At which life stage does a mental disorder become manifest? Once manifest, how long does it endure? We know that SES is related to the development of mental disorder, but life course scholars also privilege the study of reverse causal ordering: once mental disorder is manifest, does it affect future SES attainment? We now recognize that there are multiple selection processes at work during adulthood such that the onset of a mental health problem may lead to stalled or falling occupational status, reduced income, and/or problems in interpersonal relations (Dohrenwend et al., 1992).

Beyond studying onset, scholars are also undertaking investigations of how SES influences the course of mental disorder, and this may vary by the SES indicator. Considerable attention is given to how SES early in the life course may shape cohorts' risk of mental illness over time. In particular, does low SES increase the risk and severity of mental disorder or might the aging process level such differences? Answers to this question vary by the measure of SES and by the mental health outcome. Studies of SES and depressive symptoms reveal diverging mental health trajectories using education (Kim & Durden, 2007; Miech & Shanahan, 2000) and occupation (Green & Benzeval, 2011), whereas there is evidence of converging mental health trajectories using income (Kim & Durden). Moreover, in a recent study of SES and symptoms of anxiety, Green and Benzeval reveal diverging trajectories over the life course. In short, SES is a robust predictor of mental health over the life course. SES increases the risk of *earlier onset of mental disorder,* and most research shows that SES differentials in mental health widen over the life course because SES resources may soften the challenges faced by growing older. In addition, once people are afflicted with mental disorder, their likelihood of further status attainment is diminished, especially if the mental disorder is severe (Dohrenwend et al., 1992).

Race and Ethnicity

Closely related to SES differences are the differences that may be due to race or ethnicity (see Chap. 13). With data from the US National Comorbidity Survey Replication, Breslau and colleagues (2006) show that Hispanic Americans have higher lifetime prevalence of panic disorder and substance abuse disorders, and that non-Hispanic Whites have higher lifetime prevalence of anxiety, phobia, and major depression. Interestingly, the lifetime prevalence of most mental disorders is not higher for African Americans; rather, they generally have lower rates of anxiety and major depression, and fall somewhere between Hispanic and non-Hispanic Whites on many other disorders (Kessler & Zhao, 1999). This may be somewhat surprising, given African Americans' greater reports of everyday discrimination and lower average SES, but there is some evidence that psychological distress is more common among African Americans, especially during later life (Kim & Durden, 2007; Sorkin, Pham, & Ngo-Metzger, 2009). It should also be pointed out that the association between mental health and minority status varies by context. Indeed, in a South African study, all Blacks, defined as Africans, Coloreds, and Indians, generally had higher levels of psychological distress than White South Africans (Jackson et al., 2010). Context is critical to interpretation.

The overall conclusion from the literature is that racial and ethnic differences exist, but they are highly conditional on other factors (Yang & Lee, 2009). Schieman and Plickert (2007) refer to this as the multiple-hierarchy stratification perspective (i.e., multiple jeopardy). For the study of aging and mental health, this means that the mental health effects of stressors associated with aging may vary by race and other social statuses.

Beyond the notable differences due to the configuration of statuses, there are also important effects due to variables related to these statuses such as environment, immigration experiences, discrimination, and social support. For instance, there is evidence that social support may reduce the impact of discrimination or financial stress on psychological distress (respectively, Ajrouch, Reisine, Lim, Sohn, & Ismail, 2010; Ennis, Hobfoll, & Schröder, 2000). There are also mental health risks for Asian Americans, but these risks are contingent on nativity, sex, and language proficiency (Takeuchi et al., 2007). Identifying the racial and ethnic differences in mental health is important, but the literature has largely moved to assessing how the configuration of status and contextual factors shape mental health risks over the life course for persons of varying ethnic groups. The focus is on studying the ethnic groups' accumulated experiences and exposures, which are likely the true causal agents of mental health and illness.

Gender

As previously mentioned, the life course epidemiology of mental health is also distinct for men and women (see Chap. 14). There are basic differences in the prevalence of mental disorders between men and women. Women generally have higher lifetime prevalence of anxiety and mood disorders, but the sex differences in trajectories of depressive symptoms shrink over time. How much they shrink, however, varies by cohort, with the more recent cohorts experiencing higher levels of depressive symptoms (Yang & Lee, 2009). By contrast, men generally have higher lifetime prevalence of substance abuse disorders and impulse-control disorders such as conduct disorders (NCS-R, n.d.). Of course, these differences may also be modified by the contingent factors noted above—age, SES, race and ethnicity, immigration, etc. (Schieman & Plickert, 2007).

Beyond these structural factors, there are three additional factors that bear brief consideration when assessing mental health differences between men and women over the life course: marital status, obesity, and menopause.

Marital status has long attracted the attention of sociologists because of the primacy of the bonds in marriage and family (see Chap. 20). Married people generally manifest better mental health than non-married persons, but this could be due to selection processes in which persons with more mental health problems are less likely to be married. The quality of the marriage is another factor to consider when gauging the mental health benefits of marriage. There is considerable evidence that marital conflict is associated with depressive symptoms, but Choi and Marks (2008, p. 384) also found that "depressive symptoms led to more marital conflict, which, in turn, led to more depressive symptoms over time." This underscores the dynamic nature of marital quality for mental health.

In thinking of the aging process, most women will experience widowhood, and the consequences of bereavement on mental health are quite varied (Stroebe, Schut, & Stroebe, 2007). Death of spouse has long been regarded as one of life's most stressful events because it often triggers a series of additional transitions (e.g., relocation, assuming new roles), leading the survivor to face dual processes: loss and restoration (Stroebe & Schut, 2010). A long season of caregiving for a spouse facing a serious illness appears to have a lasting negative impact on the survivor's affect (Richardson, 2010). At the same time, long-term caregiving fosters anticipation of the loss, which may be helpful for restorative activities, especially for persons of higher education (Möller, Björkenstam, Ljung, & Yngwe, 2011).

The rising prevalence of obesity in the past three decades is another factor that may be related to gender differences in mental health. Although the prevalence of obesity has risen for men, there are gendered expectations for appropriate body weight that may be more consequential for women's mental health. There are divergent research findings as to whether obesity is related to depression, but some research shows that it is consequential only for White women (Schieman, McMullen, & Swan, 2007), well-educated persons, or those who are dieting (Ross, 1994). A recent study in the Netherlands, however, reveals that visceral fat, also referred to as organ fat or intra-abdominal fat, raises the risk of affect mood disorders in people 50–70 years of age, especially women (Marijnissen et al., 2011). If this finding can be replicated, it may suggest a biological predisposition to depression among obese people. Whatever the case, the social stigma of obesity may lead middle-aged and older people, especially women, to internalize pejorative feelings, thereby leading to physical or mental health decline (Schafer & Ferraro, 2011).

The aging process entails a series of important transitions, and "reproduction is a fulcrum for defining life course trajectories" (Ferraro & Shippee, 2009, p. 337). Puberty is a major transition in adolescence, and the transition to the post-reproductive years is in many respects a notable transition during adulthood. This is not necessarily because of any abrupt changes that the person experiences but because of the underlying hormonal changes occurring in both sexes. As might be expected, there has been extensive inquiry to the relationship between menopause and mental health.

In a recent review of the literature on the subject, Freeman (2010) reported than most studies found the prevalence of depressed mood to be higher in women undergoing the menopausal transition than during premenopause. Importantly, women's prior history of depression is critical to understanding women's risk for depression during menopausal transition—women with a history of depression are far more likely to experience depression during the transition (Freeman). Using data from a national sample, however, Rossi (2004) reported that menopause is also associated with notable increases in body mass index, which may partially explain some of the association between menopause and mood disorders.

In a qualitative study of the transition to menopause, Winterich and Umberson (1999) found that most women did not view menopause as a major event; rather, they identified other midlife events as more stressful and consequential. Indeed, Rossi (2004) found that more than 60% of postmenopausal American women described menopause as "only relief." Thus, women themselves generally do not regard menopause as a major life event, but scholars in psychiatry, endocrinology, and related fields are finding connections between the menopausal transition and mental health.

As men age, they typically experience a decline in testosterone, perhaps even a deficiency leading to a low-testosterone syndrome. Although research on a "male menopause" or andropause is nascent, evidence is emerging that partial androgen deficiency is associated with depressive mood and anxiety (Amore, Scarlatti, Quarta, & Tagariello, 2009). We hold that study of endocrine changes in women and men merits continued investigation, and there is a clear need for investigations that will also assess the influence of the many social changes that are commonly experienced by women and men during the late 40s and mid-50s.

Early Origins of Mental Health

In our review thus far, an emerging theme is that greater attention is being given to the long-term antecedents of mental health in adulthood and later life. Environmental context and biography are critical to understanding the epidemiology of mental health and aging. Indeed, we have witnessed a major shift in sociological research to apply a life course approach to the study of mental health. Although psychology and psychiatry have long held to the importance of developmental perspectives for mental health in later life, sociologists have capitalized on the growing availability of longitudinal data to address the early origins of mental health. Rather than chop the life course into various stages and assume that mental health disorders are tied to a specific stage, many scholars are advancing the study of mental health by studying life course continuity and discontinuity (McLeod & Fettes, 2007; see Chap. 28). The field of life course epidemiology has also flourished in recent decades (Kuh, Ben-Shlomo, Lynch, Hallqvist, & Power, 2003), and there appears to be growing synergy between epidemiologic and sociological studies of mental health.

Two innovations have been particularly important for advancing research on the early origins of mental health. First, in response to a focus on the effects of acute stressful events on mental health, Avison and Turner (1988) asked respondents to describe the life events they had experienced as well as how long each event had influenced the respondent. Their research on samples from southwestern Ontario revealed that "more enduring, chronic strains contribute significantly to the individual's level of depressive symptoms" (Avison & Turner, p. 261). This research stimulated the shift toward examining the length and context of exposures, dovetailing nicely with life course studies of historical and biographical context (Elder & Liker, 1982).

Second, investigators began incorporating more information from childhood in studies of adult physical and mental health. For sociologists, parental SES had long been studied in models of status attainment, but investigators started asking if parental SES (or household SES during the respondent's childhood) would have long-term effects on stress exposure and physical and mental health. Empirical studies to date show a consistent link between childhood SES and adult depression, even after adjusting for adult SES (e.g., Luo & Waite, 2005). More directly, investigators began asking adult respondents to retrospectively describe their childhood experiences in order to examine how the "joint or cumulative effects of multiple traumas" may shape mental health in adulthood (Turner & Lloyd, 1995, p. 268).

Thus, sociologists redoubled their efforts to study the life course antecedents of adult mental health by identifying exposure to stressors over the life course (Krause, Shaw, & Cairney, 2004; Turner & Lloyd, 1995; Turner, Wheaton, & Lloyd, 1995). This gave way to the studies linking adverse childhood experiences to adult physical health. With a sample of adult Kaiser Permanente patients, Felitti and colleagues (Felitti et al., 1998) assessed seven categories of childhood adversity, developing what he refers to as an ACE score (adverse childhood experiences). Empirical reports from this project reveal that ACE is associated with adult suicide risk (Dube et al., 2001), risky sexual behaviors, such as the likelihood of having had 30 or more sexual partners (Hillis, Anda, Felitti, & Marchbanks, 2001), and depression (Anda et al., 2002). Others have found that childhood adversity is also related to mental disorders as defined by the DSM-IV. Indeed, multiple recent publications using data from the National Comorbidity Survey Replication show that selected forms of childhood adversity are related to mood, anxiety, and substance abuse disorders (e.g., McLaughlin et al., 2010). Parental mental disorder, substance abuse, violence, and abuse appear most consequential to the mental health of adult offspring.

Avison (2010) recently advocated incorporating children's lives into the study of adult stress and mental health, thereby privileging a life course perspective. He draws on core concepts in the life course perspective such as trajectories and exposures but also makes a case for greater attention for studying the early onset of psychological disorder. Moreover, the onset of mental health problems during childhood and early adulthood is frequently a risk factor for recurring problems later in life (Avison). Consistent with a "critical period" view of childhood, psychological disorder in childhood has the power to alter the life course in important ways.

This genre of research has been illuminating, and one can see in the recent studies that the focus is shifting to the myriad of mechanisms and processes that may mediate these links, such as social support (Hill, Kaplan, French, & Johnson, 2010) and personal control (Irving & Ferraro, 2006). Indeed, failure to adequately account for adult characteristics (and stressors) may lead to overestimating the effect of childhood adversity on adult mental health or missing important pathways in how adversity affects well-being.

Theories of Aging and Mental Health

The first two parts of this chapter were devoted to outlining some of the major empirical generalizations about age, aging, and mental health. There clearly are recurring findings: notable age differences in mental health that depend greatly on how mental health is measured; the power of social forces to shape mental health, especially disparities; and the utility of using a life course lens to analyze the onset and duration of mental health problems. Nevertheless, social change and new scientific methods may eventually challenge prior generalizations. It is for this reason that scholars attempt to integrate empirical generalizations with theories to provide a more enduring lens for studying the subject. Moreover, empirical generalizations provide an excellent foundation for research, but how does one make sense of the inconsistencies? Theories are logical integrated statements that join together accumulated scientific evidence on a topic with hypotheses and propositions to better understand a subject. Good theories are grounded in careful description of phenomena and enhance our understanding of the topic; they also should lead to accurate predictions of related phenomena (Merton, 1968). In this next section, we critique several theories that provide such explanations and predictions.

Our review of theories of aging and mental health is guided by two important considerations. First, there is the question of what is meant by mental health. As described earlier in this essay, there is considerable variability in the use of terms employed by scholars studying mental health. This has consequences for examining theories of aging and mental health because some theories, frameworks, and models have emerged to deal principally with one mental health outcome, but they may be less well-suited for other dimensions of mental health. In our review of theories, we draw most closely on what Aneshensel (2005) calls the "social consequences" approach, in which overall mental health is the object of study (consistent in many respects with the positive psychology approach) but also attend to theoretical developments that are more specific to the study of disorder or distress (Payton, 2009). Second, there are many psychological and psychiatric theories that may be useful to sociological research on aging and mental health; however, we focus on theories that either have been applied by sociologists or have considerable potential for sociological application.

Stress Process Theory

Among the theories that have established a major presence in the sociological study of aging and mental health is *stress process theory*. Central to this theory is the way that social and economic statuses structure life, exposing persons to stressors and providing resources to help confront these stressors (Pearlin, 1989; Pearlin, Schieman, Fazio, & Meersman, 2005). In Pearlin's (2010, p. 208) view, stressors refer to "the broad array of problematic conditions and experiences that can challenge the adaptive capacities of people. Stressors appear either in the form of disruptive events or the more persistent hardships and problems built into the fabric of social life." Pearlin has conducted empirical tests of the theory involving people of various ages, including caregivers of persons with AIDS (Pearlin, Aneshensel, & LeBlanc, 1997) or Alzheimer's disease (Skaff & Pearlin, 1992).

Linking Stress Process and Life Course Theories

Over the years, Leonard Pearlin has written three essays calling for paradigmatic alliances between the stress process and *life course* "paradigms" (Pearlin, 2010; Pearlin et al., 2005; Pearlin & Skaff, 1996), with the latter article articulating convergences in concepts such as timing of transitions, continuity and discontinuity, historical influences on stress exposure, the termination of relationships due to death, and how role sets link lives. In these essays, he has given special attention to the challenges of later life, although there is clearly more room for development of specific hypotheses for age as a status characteristic. Specifically, how does mental health change with age?

The implication from Pearlin's vast scholarly contributions is that the demands of multiple transitions in later life, especially for those who have limited resources, will result in challenges to mental health. Assuredly, there are exceptions to this general expectation, but the theory paints a demanding picture for advanced age—a period of life attendant with the loss of significant others, increased health problems, and perhaps new caregiving responsibilities. It is to be expected, then, that the challenges associated with growing older are accompanied by an age-related decline in life satisfaction (Baird, Lucas, & Donnellan, 2010) and an increase in depression (Mirowsky & Ross, 1992), but these effects occur rather late, typically after 80 years of age. Later life is demanding, but people with good mental health in middle-age generally fare well in later life. For those beset by mental health problems early in life, growing older is especially difficult.

Linking Stress Process and Disparities Research

Beyond Pearlin's efforts to more closely align stress process and life course paradigms, Aneshensel (2009) endeavored to articulate how the stress process model may be fruitfully applied to the study of *mental health disparities*. Status stratification implies differences in stress exposure and resource access such that "disadvantaged social status generates elevated levels of psychological distress" (Aneshensel, 2009, p. 380). Thus, persons occupying low-status positions may have higher lifetime stress exposure, which may rise even further when facing multiple transitions in later life, theoretically resulting in more rapid deterioration in mental health.

Mental health problems in later life may be higher for persons occupying low-status positions because of (a) accumulated stress exposure, (b) the conditional influence of resources such as social support, or (c) both. Of note, Aneshensel (2009) shows that the benefit of social support to reduce psychological disorder is greater for persons of high SES than for those of lower SES. In this way, stress process theory applied to disparities is similar to expectations from the double jeopardy (Ferraro & Farmer, 1996) and multiple-hierarchy stratification perspectives (Schieman & Plickert, 2007).

Moreover, the consequences of psychological distress on physical health and mortality are also often contingent on status stratification (Ferraro & Nuriddin, 2006).

Crisis Theory

Crisis theory is another useful perspective for understanding empirical findings and developing new hypotheses related to aging and the life course. Originally specified two decades ago, Turner and Avison (1992) contend that the theory is most relevant for understanding the mental health consequences of *major* life events. A key tenet of the theory is that some events are so serious that they challenge the ontological security of the person—one's "fundamental assumptions about the self or the world" (Reynolds & Turner, 2008, p. 223). Whereas the theory focuses on assumptions about the self, one can also see considerable overlap with *identity theory*: role identities are challenged by events or strains (Thoits, 1991).

According to crisis theory, major events trigger an emotional upheaval that represents both an opportunity and a hazard. If the person struggles to cope effectively with the transition, the outcome may well be compromised mental health. The theory, however, also specifies that the successful resolution of a crisis has psychological *benefits*. This is an important consideration because many sociological depictions of stress processes ultimately give limited attention to the role of human agency. Events and stress exposure are typically seen as the agents of compromised mental health, while resources can soften the blow of noxious events and experiences. Crisis theory does not dispute the powerful role of social forces acting on mental health, but it privileges how the actor handles the situation. It is more than just having access to resources; it is about how the person accesses and effectively appropriates the resources when facing a crisis. Crisis theory is also consistent in many ways with *control theory*, which specifies that effective coping is beneficial to well-being (Rotter, 1966; see also Mirowsky & Ross, 1990), and with scholarship on post-traumatic growth (Woodward & Joseph, 2003) and resilience (Luthar, Cicchetti, & Becker, 2000; Schafer, Shippee, & Ferraro, 2009). The question that merits investigation is whether older adults are as likely as younger people to reap mental health benefits from successfully resolving a conflict.

As noted earlier, stress process theory has done much to incorporate the life course perspective into its analytic frame. Indeed, use of the life course framework (or theory, see Elder, 1998) is a major trend in the sociology of mental health and the sociology of aging. Although many early studies in gerontology focused on studies of older people only, considerable scholarship has advocated a different type of gerontology—a focus on aging and the life course, especially longitudinal studies that track people as they grow older. Thus, a question for the life course application of crisis theory to mental health is whether older adults, who face multiple stressors, are able to reap psychological benefits from effectively coping with the stressors. There is ample evidence to suggest that older people are resilient in responding to crises, but this may be increasingly difficult in advanced age, especially because the stressors themselves often lead to accelerated physiological dysregulation (Glei, Goldman, Chuang, & Weinstein, 2007).

Cumulative Inequality Theory

Cumulative inequality theory has recently been articulated to describe the mechanisms by which inequality develops between persons and how such inequalities are related to psychosomatic processes (Ferraro, Shippee, & Schafer, 2009). The theory maintains that "social systems generate inequality, which is manifested over the life course via demographic and developmental processes, and that personal trajectories are shaped by the accumulation of risk, available resources, perceived trajectories, and human agency" (Ferraro & Shippee, 2009, p. 333). Specified in five axioms and 19 propositions, cumulative inequality integrates elements of life course and stress process theories described above with cumulative advantage theory (O'Rand, 2003). Closely related to Avison's (2010) statement regarding the early onset of mental disorder, cumulative inequality theory holds that "childhood conditions are important to adulthood, especially when differences in experience or status emerge early" (Ferraro & Shippee, p. 337).

Unlike many of the theories mentioned earlier such as cumulative disadvantage and stress process, cumulative inequality theory also gives explicit attention to genetics and family lineage because mental health problems often arise in a family context. Thus, there are many structural forces—familial, socioeconomic, demographic, and community—that predispose people toward life trajectories, but the theory also privileges human agency and resource mobilization to modify those trajectories (Ferraro et al., 2009). Rather than assume that there are inexorable effects due to early disadvantage—that disadvantage always accumulates—cumulative inequality theory is an effort to advance our understanding of the *conditions* by which early insults lead to poor physical or mental health.

Disadvantage is an unfavorable position in a status hierarchy that increases the risk of hazards or negative events occurring in the future (Ferraro et al., 2009). Nevertheless, some people are able to dodge these exposures and/or surmount the physical and mental health consequences that often accompany such exposures. This expectation stops short of crisis theory's specification that there may be mental health *benefits* from effectively coping with the adversity, but it clearly opens the door to human agency and resource mediation when faced with adversity. Disadvantage does not automatically result in additional problems; some people are disadvantaged but able to mobilize resources, make wise choices, or expend extraordinary effort to overcome their disadvantage (Thoits, 2006).

Another element of cumulative inequality theory is especially useful for the study of aging and mental health: the role of perceived life trajectories. Drawing from symbolic interactionism, cumulative inequality theory specifies that each person reflects on his or her life by comparing it to others and to earlier points in the life course. Ferraro and Shippee (2009, p. 337) go on to state that "perceived life course timing influences psychosomatic processes." Feeling that one is doing well in comparison to one's peers will be associated with self-efficacy which, in turn, is beneficial to one's functioning. This act of reflecting and evaluating one's life as favorable is similar to the development of mastery in later life (Pearlin, Nguyen, Schieman, & Milkie, 2007). The point is that people have a sense of how they are doing in life, whether they have overcome or succumbed to adversity, and these evaluations of their life trajectory influence their view of the future and sense of hope (Schafer, Ferraro, & Mustillo, 2011).

New Directions in Mental Health Research on Aging

There have been important innovations in how sociologists study aging and mental health during the past three decades. Among the innovations, the application of the life course perspective has been transformative, especially in research examining the link between childhood adversity and adult mental health. Also, research from the National Comorbidity Survey Replication has provided the scientific and clinical communities with unparalleled information on the epidemiology of mental health in adulthood. Moreover, a young and vibrant section of the American Sociological Association dedicated to the Sociology of Mental Health and a new journal—*Society and Mental Health*—also suggest that there is ample energy for future scientific innovations. In concluding this essay, we outline four paths to future innovation in the sociology of aging and mental health: ecological analysis, life course analysis, biomarkers, and family lineage (including genetics).

Although early works by sociologists focused on the *ecological context* of mental health, there has been a resurgence of interest in recent years to examine how context—especially neighborhoods—may influence mental health over the life course. The widespread application of multilevel models is partly responsible for this resurgence. Many studies have uncovered that ecological variables are associated with mental health problems such as depressive symptoms (Kubzansky et al., 2005), schizophrenia (Brown, 2011), and substance abuse disorders (Silver, Mulvey, & Swanson, 2002).

Of course, discovering associations between various neighborhood characteristics and mental disorders is not evidence that these neighborhood characteristics cause the outcome, but it is a first step in identifying which neighborhood characteristics are the most plausible agents. Evidence continues to emerge that selected neighborhood characteristics such as poverty, excessive noise, and low concentration of older people have independent effects on the mental health of older people (e.g., Kubzansky et al., 2005). See Chap. 23 of this volume for more on how neighborhoods are related to mental health and illness.

A second innovation is the application of *life course analysis*. By this we mean empirical research that uses longitudinal data and actually incorporates life course variables such as accumulation, timing, trajectories, and selection processes. Guided by theories and the accumulated empirical evidence, we are seeing more studies seeking to explicate the life course origins of mental disorder in later life. This is a welcome development, but it could also be argued that the application of life course analysis to the study of mental health remains a nascent activity.

Many studies claim to place their findings in the context of the life course, which is commendable, but the actual connections to life course concepts and measures are often modest to weak. It is more difficult to make life course connections when studying a sample with a limited age range, but even some of those studies link to family data over generations or ask retrospective questions. The point is that life course analysis should make use of long-term longitudinal studies—the gold standard—or may provide linkages to other data sets or collect retrospective data. We do not presume that the collection of such data is easy and without problems, but the payoff may be worth the investment. Several European studies, especially British and Finnish investigations, are exemplary for their long-term tracking of subjects. American studies such as the NCS-R, rely instead on retrospective questioning. Issues of recall and state dependence are not trivial matters when studying adulthood and later life, but there are methods to detect and/or reduce the bias (Elder & Giele, 2009). Life course analysis is challenging to do well, but the growing application of life course methods and theories remains a promising development for the epidemiology of aging and mental health.

The first two innovations, ecological analysis and life course analysis, can actually be combined to yield important insights on the etiology and duration of mental disorder. Although rare, there are studies that track changes in environments and the individuals over time. If we are interested in studying how environments affect mental health, we should attend to two types of environmental change: (a) residential relocation (i.e., environmental change because the respondent of a longitudinal study moves to a new location) and (b) neighborhood or community change that is observed as a respondent ages in place.

An innovative study by Wheaton and Clarke (2003) used three waves of the National Survey of Children to determine how residential mobility—and the attendant characteristics of the new community—influence externalizing problems. Their findings reveal that both early and later environments are important to understanding the outcomes in early adulthood. In a recent, clever study of Chicago neighborhoods, the authors found that 30-year change in neighborhood SES was associated with childhood diabetes risk (Grigsby-Toussaint et al., 2010). Although both of these studies focus on early periods of the life course, the approach and methods used hold considerable promise for the study of aging and mental health across the life course. Individuals and environments are changing, and studies that assess change at both levels offer special insights for the sociological study of aging and mental health.

Third, research on aging has increasingly turned to *biomarkers* to better understand mental health disorders in the context of aging. As noted earlier, a study by Marijnissen et al. (2011) reported a significant relationship between visceral obesity and depressive symptoms among adults aged 50–70 years. Similarly, in a population-based sample of Taiwanese adults, research found significant associations between biomarkers related to the stress response (e.g., IL-6) and moderate to severe levels of depressive symptoms (Seplaki, Goldman, Weinstein, & Lin, 2004). These and other studies point to the importance of using biomarkers to further elucidate risks of mental disorder across the life course (Schiefelbein & Susman, 2006).

Finally, there is emerging evidence that *family lineage* is important to the development of mental health over the life course. Much of the research on accumulated adversity begins within the family. As such, we may learn more about mental health over the life course by more systematic integration of information from families of origin. We know that parental mental illness is associated with risk of mental illness in the children, and this may not be manifest in the progeny until adulthood (McLaughlin et al., 2010). There may be a genetic risk, but there is also a shared environment that may lead to perturbations in mental functioning. A few surveys link family members across the generations, which may be especially useful for studying family influences, particularly if multiple children are surveyed.

We also need more direct tests of genetic and environmental influences. Sociology is delving more into biomarkers and even incorporating molecular genetics (Shanahan & Hofer, 2011; Shanahan, Vaisey, Erickson, & Smolen, 2008). These are favorable developments for sociology, and twin studies represent another avenue to identify how the gene-environment interplay affects the onset and course of mental disorder. A prominent hypothesis for examining how genes and environment jointly influence mental disorder is known as contextual triggering (Shanahan & Hofer, 2005) or diathesis-stress (McGue, 2010). The essence of the hypothesis is that high-risk environments trigger (or exacerbate) genetic effects. Given the strong anchoring of mental health research in identifying and quantifying stress exposures over the life course, this could mesh nicely with gene-environment studies to determine if stress exposures raise the influence of genetic effects on the development of mental disorder (Taylor, 2010). In short, the process of stress reactivity reflects a biological sensitivity to the environment (Boyce & Ellis, 2005), and sociologists are well positioned to explicate what elements of the environment are most consequential to mental health over the life course.

Concluding Comments

There is clear and consistent evidence that social forces are related to the development of mental disorder as well as positive elements of mental health over the life course. In comparison to younger people, older people generally have lower risk of most types of mental disorder. At the same time, they have a higher prevalence of depressive mood and, at advanced ages, a growing risk of dementia. Nevertheless, they generally report high levels of happiness. We interpret this seeming contradiction as many older adults living with a low-grade concern or anxiety about the future coupled with fairly high levels of happiness. Sociologists are increasingly applying a life course perspective to study mental health, and this is paying important dividends for understanding the early origins of many mental health problems and tailoring interventions to address them.

Sociological study of mental health and aging is well-positioned for breakthrough discoveries in the coming decades. The wealth of longitudinal data coupled with theories focused on accumulation processes and advanced analytic techniques should lead to better understanding of and more effective interventions for mental health problems over the life course.

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Chapter 11
Social Stratification, Social Closure, and Social Class as Determinants of Mental Health Disparities

Carles Muntaner, Edwin Ng, Christophe Vanroelen, Sharon Christ, and William W. Eaton

Abbreviations

DIS	Diagnostic Interview Schedule
DSM	Diagnostic and Statistical Manual of Mental Disorders
ECA	Epidemiologic Catchment Area
FMD	Frequent Mental Distress
NCS	National Comorbidity Survey
NCS-R	National Comorbidity Survey Replication
NMSC	Neo-Marxian social class
SES	Socioeconomic status
SEP	Socioeconomic position
UK	United Kingdom
US	United States
WHO-WMH	World Health Organization World Mental Health

C. Muntaner (✉)
Bloomberg Faculty of Nursing, University of Toronto, 155 College Street, Suite 381,
Health Sciences Building, Toronto, ON M5T 1P8, Canada
e-mail: carles.muntaner@utoronto.ca

E. Ng
Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada

C. Vanroelen
Research Foundation Flanders, Department of Medical Sociology, Brussel, Belgium

S. Christ
Department of Human Development and Family Studies, Department of Statistics,
Purdue University, West Lafayette, IN, USA

W.W. Eaton
Department of Mental Health, The Johns Hopkins University, Baltimore, MD, USA

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From its inception, the sociology of mental health has attempted to identify and explain how social inequalities result in mental health disparities based on the theoretical assumption that societies are composed of individuals and groups with different levels of political, cultural, or economic advantage (Faris & Dunham, 1939; Hollingshead & Redlich, 1958). To advance this tradition, this chapter (a) considers how best to conceptualize *advantage/disadvantage*, focusing in particular on socioeconomic status (SES) and social class; (b) describes and explains the impact of advantage/disadvantage on the mental health of individuals and populations; and (c) identifies unresolved issues and enduring debates in the extant literature. Social inequalities are defined as the unequal positioning of individuals and groups in the social structure by their differential access to socioeconomic resources, their status and power related to occupations, and their relationship to means of production (Krieger, Williams, & Moss, 1997; Liberatos, Link, & Kelsey, 1988). This discussion centers on whether the impact of social inequalities on mental health should be conceptualized in terms of social stratification (e.g., inequality as a gradational ordering of attributes and material conditions of individuals and populations) or social relations (e.g., inequality as relations between groups holding unequal control over economic resources and productive assets). We conclude that social stratification and social relations (social closure and social class) identify distinct and complementary aspects of social inequality, with important consequences for mental health.

We consider the following five topics. First, we provide a brief review on publication trends over time and critically appraise classic and recent empirical findings on the association among stratification, closure, and class and mental illness. Second, we define gradational (social stratification) and relational (social closure and social class) approaches and their specific dimensions, focusing on supporting evidence and measurement issues. Third, we discuss the interrelationships between social inequalities and race, ethnicity, and gender—to give a comprehensive view of mental health disparities. Forth, we consider the extent to which the observed mental health associations reflect processes of social causation and social selection. In closing, we recommend directions that research can take to address theoretical limitations and methodological challenges.

Publication Trends

There has been a long-standing interest in sociology in socioeconomic status and social class as risk factors for mental disorders (Cockerham, 2001; Davis, 1938). We summarize this work in two ways: identifying publication trends and reviewing the historical literature across three generations of research. As discussed above, conceptualizing social inequalities in mental health often involves two sociological variables: SES and social class. Figure 11.1 shows mental health publication trends based on a search of peer-reviewed papers listed in *Sociological Abstracts* ($N = 238$) and *PubMed* ($N = 6{,}651$) from 1950 to 2009 with either “socioeconomic status and mental health” versus “social class and mental health” in the title, keywords, or abstract. Research on social class has increased steadily over time, while the number of articles on SES exploded during the 1990s and continues to grow. Social class exceeded SES as a topic only from 1950 to 1979 in the *Sociological Abstracts* database. Across both databases there is a 2.5-fold difference in favor of SES papers ($n = 4{,}895$) over social class articles ($n = 1{,}994$). These findings underscore the extent to which social class lags behind SES in research interest and suggest that increased attention to social class is warranted.

Owners	Wage Laborers				
1 Capitalists (Hires 10 or more employees)	4 Managers experts	7 Managers semi-skilled	10 Managers “unskilled”	+	
2 Small employers (Hires 2-9 employees)	5 Supervisors experts	8 Supervisors semi-skilled	11 Supervisors “unskilled”	> 0	Relation to organization/ management
3 Petit Bourgeoisie (Hires no more than 1 employee)	6 Workers skilled	9 Workers semi-skilled	12 Workers “unskilled”	–	
	+	> 0	–		
	Relation to skills/credentials				

Fig. 11.1 Erik O. Wright’s scheme of social class locations (Source: Wright 1989. Reprinted with permission)

Classic Studies

According to Dohrenwend and Dohrenwend (1982), the historical literature on mental health research can be understood across three generations, each successively producing more sophisticated evidence on the inverse association of SES and social class with mental disorders. First generation studies, conducted between the turn of the last century and shortly after the Second World War, were characterized by the use of key informants, hospital samples, and clinical diagnoses of a small number of “classical” psychiatric diagnoses to assess broad patterns of mental disorder in the community. A seminal study by Faris and Dunham (1939) examined the preadmission neighborhood locations of over 30,000 psychiatric patients treated in Chicago’s public and private psychiatric hospitals from 1922 to 1931, finding high rates of schizophrenia and substance abuse disorder “in the deteriorated regions in and surrounding the center of the city, no matter what race or nationality inhabited that region” (p. 35). This study not only linked low SES neighborhoods with mental illness but also signaled an important shift in methodology, moving beyond individual personal histories within clinical settings to considering shared group characteristics, such as contextual and environmental risk factors (Switzer, Dew, & Bromet, 1999).

A second ground-breaking study of this era was *Social Class and Mental Illness* by Hollingshead and Redlich (1958). They identified all residents of New Haven, Connecticut, who were receiving treatment by contacting private psychiatrists and all public and private institutions, and operationalized income level into five groups using the roman numerals I through V (V being the poorest). Primary findings revealed a significant inverse relationship between social class and mental illness in both type and severity, as well as in the nature and quality of treatment that was provided. Whereas individuals from the lowest socioeconomic strata had a much higher incidence of severe, persistent, and debilitating forms of mental illness and received the least adequate forms of treatment (e.g., intrusive methods such as electroshock and lobotomies delivered in public institutions), the upper two social classes received insight or talking therapy which was nonbodily intrusive and took place in private settings.

However, these first-generation studies used prevalence estimates that were based on treated samples instead of population-based estimates, which grossly underestimates prevalence rates in the population and produces biased estimates of risk factors because only a fraction of those with mental disorders ever seek treatment (Dohrenwend & Dohrenwend, 1982).

The second generation of studies identified by the Dohrenwends extended from the end of the Second World War to the 1970s and was stimulated by dramatic changes in the conceptualization and measurement of psychiatric disorders (Dohrenwend & Dohrenwend, 1969; Leighton, Harding, Macklin, Macmillan, & Leighton, 1963; Srole, Langner, Michael, Opler, & Rennie, 1962). Instead of assessing specific types of discrete psychiatric disorders, these studies measured mental disorders along a continuum using psychological distress scales (e.g., the Selective Service Neuropsychiatric Screen Adjunct). These studies found additional empirical evidence that the prevalence rates of various types of psychiatric disorders were inversely associated with socioeconomic status and social class in the general population (Dohrenwend & Dohrenwend, 1969; Leighton et al., 1963; Srole et al., 1962). Two innovative studies from this second generation include the Midtown Manhattan Study in New York (Srole et al., 1962) and the Stirling County Study in Nova Scotia (Leighton et al., 1963). The former used a large sample of persons randomly selected from the population and found that mental health risks were greatest among low-socioeconomic status groups and racial inequalities in mental illness appeared to be due to racial differences in SES. The latter found that during the 1950s and 1960s the prevalence of depression was significantly and persistently higher in low-SES groups compared to other SES levels. The incidence of depression also was highest among those who were initially in the low-SES group, supporting the social causation view that poverty increases the risk of depression (Murphy et al., 1991).

Advantages of these second-generation studies over previous efforts included the use of probability sampling methods to select respondents who were representative of their respective communities, longitudinal designs to measure changes over time, and the use of sophisticated assessment techniques that had not previously been feasible. These methodological improvements provided stronger evidence of the inverse link between SES and psychiatric disorders and also extended its generalization beyond treatment samples to the general population.

The 1980s and 1990s saw the emergence of third-generation studies, which established the methods of modern medical sociology and psychiatric epidemiology in the US. Population-based efforts such as the Epidemiological Catchment Area (ECA) study, the National Comorbidity Survey Replication (NCS), and the National Comorbidity Survey Replication (NCS-R) are notable for their use of reliable lay-administered structured diagnostic assessment tools to ascertain standardized diagnostic criteria (Kessler & Merikangas, 2004; Robins, Helzer, Croughan, & Ratcliff, 1981), the comparison of clinical interviews with lay interviews to evaluate diagnostic validity (Spitzer, Williams, Gibbon, & First, 1992), and the application of sampling strategies to demonstrate that mental disorders were highly prevalent in the general population (Kessler et al., 1994).

The ECA study, designed to estimate the prevalence and incidence of mental disorders in five US metropolitan areas was conducted between 1980 and 1985 (Eaton, Regier, Locke, & Taube, 1981; Robins & Regier, 1991). The Baltimore ECA site followed up its cohort of 3,481 respondents using the Diagnostic Interview Schedule (DIS) as the measurement instrument (Eaton et al., 1997). Studies using ECA data consistently found a strong and graded relationship between SES and psychiatric disorders (Dohrenwend, 1990; Holzer et al., 1986; Regier et al., 1993); however, the strength of associations varied by the type of psychiatric disorder examined. Overall, low-SES groups were 2.5 times more likely than the highest SES group to meet criteria for any DIS-disorder, even after controlling for age, gender, race, ethnicity, and marital status (Regier et al., 1993). The impact of SES on mental disorders was strongest for schizophrenia (eightfold difference between the lowest and highest SES groups), intermediate for alcohol abuse or dependence (fourfold difference), and weakest for major depression (twofold difference) (Holzer et al., 1986).

The NCS, conducted in 1990–1992, yielded 12-month and lifetime prevalence rates for a nationally representative sample of persons aged 15–54. Echoing ECA results, NCS findings consistently revealed an inverse association between SES and psychiatric illness: The highest rates of psychiatric disorders were found among low-SES groups, and increases in income and education were associated with decreases in mental disorders (Kessler et al., 1994). Inverse associations were also found between financial (e.g., income from property, royalties, estates, trusts, earned interest) and physical assets (e.g., motor vehicle and home ownership) and mood, anxiety, alcohol, and drug disorders (Muntaner, Eaton, Diala, Kessler, & Sorlie, 1998).

A decade after the original NCS, the NCS-R was carried out in a new national sample of 10,000 respondents to investigate time trends and their correlates over the 1990s (Kessler et al., 2005; Kessler & Merikangas, 2004). To date, SES findings from the NCS-R are broadly consistent with previous surveys in finding that low education increases the risk of substance use disorders (Kessler, Chiu, Demler, & Walters, 2005), living in or near poverty increases the risk of major depression (Kessler et al., 2003), and low childhood SES increases the risk of onset of all classes of disorders at every life-course stage (McLaughlin et al., 2011).

Taken together, third-generation studies have confirmed the link between low SES and poor mental health, finding that this association remains strong across different measures of education, income, and occupation and across mental health outcomes (Yu & Williams, 1999). However, research often does not explicitly discriminate the way that gradational and relational aspects of social inequality relate to mental health, and we next turn to these complementary approaches.

Gradational Approaches to Social Inequality

One dominant approach to understanding social inequalities in mental health involves the empirical use of social stratification measures, which focus on ways in which individuals are ranked along a hierarchical continuum of social, economic, or cultural attributes such as educational attainment, income or wealth, and occupational classifications and prestige (Lahelma, 2001). Social stratification rankings are often referred to as "simple gradational measures" (Wright, 2000), "SES" (Braveman et al., 2005), "socioeconomic position" (Krieger et al., 1997; Lynch & Kaplan, 2000), or "social class" (Stansfeld, Head, & Marmot, 1998). From the gradational perspective, mental health disparities exist between all hierarchical strata, with those at the bottom of the ladder having poorer mental health than those in the middle and at the top.

Defining Dimensions of Social Stratification

A number of options exist to measure social stratification in empirical studies on mental health disparities. We review education, income, and occupational classifications, and the supporting evidence on how each dimension helps to explain mental health disparities.

Education, measured as years of training or credentials, is perhaps the most common indicator of social stratification in the sociology of mental health disparities (Liberatos et al., 1988). Education is strongly associated with both material (e.g., income, wealth, living conditions) and nonmaterial resources (e.g., psychosocial factors, sense of control and mastery) (Ross & Mirowsky, 2011; Ross & Wu, 1995). Education can be measured using completed years or highest credential and offers distinct advantages. For example, education is established relatively early in the life course and tends to be stable over the remainder of adulthood. It is also equally suitable for men and women, has high response rates in surveys, demonstrates good reliability across time and place, and is generally comparable across countries (Kaplan & Keil, 1993). The drawbacks of using education as an SES indicator include its different labor market and psychosocial consequences according to gender (e.g., patriarchal institutions), age (e.g., older individuals are likely to have only completed elementary school), and cohort (e.g., education varies across cohorts) factors (Ross & Mirowsky, 2006; Ross & Wu, 1996).

The positive association between education and mental health is strong, consistent, and well-established. For example, a comprehensive meta-analysis of depression included 26 studies in which education was the measure of SES, and all but two found that persons with lower educational attainment have a higher prevalence of depression than those with less education (Lorant et al., 2003). Two types of explanations have been advanced to explain these observed associations: (1) education directly results in better mental health outcomes because it empowers individuals with greater knowledge and increases their cognitive resources, sense of control, and health–enhancing behaviors (Ross & Wu, 1995); and (2) education improves mental health indirectly because it provides greater access to valued labor market skills, which are kept in short supply by "credentialing" processes (e.g., obtaining a postgraduate degree) (Muntaner, Wolyniec, McGrath, & Pulver, 1994), which in turn leads to better work conditions and material resources (Ross & Wu, 1995), with positive mental health consequences. Recent research suggests that the education-mental health link is likely dominated by the effects of lower education on the chronicity of depression, as opposed to its incidence (Miech, Eaton, & Brennan, 2005).

Income is a measure of the availability of economic resources for individuals or households (Liberatos et al., 1988). When combined with data on family size, it can be used to calculate *poverty thresholds* at the level of the individual (Costello, Compton, Keeler, & Angold, 2003) and at the level of neighborhood, census tract, or other social aggregates (Aneshensel, Ko, Chodosh, & Wight, 2011; Wight, Ko, & Aneshensel, 2011). Income is widely used as a social stratification indicator because it most clearly captures material resources and allows for ordinal rankings or interval measures (Lynch & Kaplan, 2000). Drawbacks in measuring income include higher nonresponse in surveys compared to education and occupation queries, due to the unwillingness of respondents to disclose financial information (Kaplan & Keil, 1993; Liberatos et al., 1988), and difficulty in establishing causal relationships because income fluctuates throughout the life course. Also, given that wealth is more unequally distributed than income (Wolff, 1996), reliance on income as the primary indicator of economic resources may overlook even greater economic inequalities in mental health (Hajat, Kaufman, Rose, Siddiqi, & Thomas, 2011).

Similar to education, direct links between income, measured in various ways, and mental health have long been observed, with the affluent doing better on most measures of mental health compared to those less well-off economically and the poor (McLeod & Shanahan, 1996). As revealed in the NCS, for example, individuals with annual household incomes of less than $20,000 per year were found to have a 1-month prevalence of major depression that was twice as high as that for individuals with annual household incomes of $70,000 or more (Blazer, Kessler, McGonagle, & Swartz, 1994). Studies of metropolitan areas in the US have found even larger differences between high- and low-income respondents' risks of depression (Eaton, 2001). In a 13-year follow-up study of participants in East Baltimore, poverty at baseline was found to increase the onset of depression by 2.5 times (Eaton, Muntaner, Bovasso, & Smith, 2001). Interestingly, this study also found a relatively weak relationship between late onset of depression and education and occupational prestige, but a strong relationship with receiving welfare payments at baseline, suggesting that poverty and absolute deprivation are more important mental health determinants than relative deprivation (Eaton et al., 2001).

Occupational classification is another important indicator of social stratification, since it relates people to social structures. Arguably, the most popular occupational classification among empirical sociologists in the UK is the "British Registrar General's Classification" (Reid, 1989), which distinguishes between (I) professional, higher administrative (lawyer, doctor); (II) managerial and technical/intermediate (manager, teacher); (IIIN) skilled nonmanual (police, secretary); (IIIM) skilled manual (bus, driver); (IV) partly skilled (farm worker, security guard); and (V) unskilled (cleaner, building laborer). Other ordinal grades in this category include the British Whitehall studies (Marmot, Bosma, Hemingway, Brunner, & Stansfeld, 1997) and the French GAZEL cohort (Melchior et al., 2005).

Recent studies show that blue-collar workers are between 1.5 and 2 times as likely to be depressed as white-collar workers (Eaton et al., 2004). Being born to parents employed in manual labor occupations confers almost twice the risk of depression for women and almost four times the risk of depression for men compared with those born to at least one parent not in the manual labor occupations (Eaton et al., 2004). In the US, two- to threefold differences in prevalence between high- and low-occupational strata have been found for substance use disorders, alcohol abuse or dependence, antisocial personality disorder, and anxiety disorders (Eaton, 2001; Regier et al., 1988).

Occupational prestige scales reflect a culturally shared assessment of the prestige associated with employment positions, resulting in the ranking of occupational titles from high to low. Examples include "Nam-Powers Occupational Status Scores" (Nam & Powers, 1965), and Duncan's (1961) "Socioeconomic Index", the International Standard Classification of Occupations (Ganzeboom, De Graaf, & Treiman, 1992), and the "Cambridge Scale" (Prandy, 1999), which has been used in population health and mental health research (Prandy, 1999; Sacker, Bartley, Firth, & Fitzpatrick, 2001).

The impact of occupational prestige on mental health operates primarily through psychosocial and lifestyle mechanisms (Sacker et al., 2001). Given that an individual's occupational prestige reflects what is known about an occupation in terms of work characteristics, consumption of goods and services, and social behaviors, prestige therefore may be viewed as a proxy of job characteristics such as control, autonomy, authority, stress, and job security. The benefit of using occupational schemes in mental health research lies in their explicit theoretical link to the Weberian notion of status—individuals are conceptualized as workers who are attached to social structures based on their status related to different occupations (Lahelma, 2001).

Relational Approaches

Whereas gradational approaches emphasize the ranking of individuals along a hierarchy, relational approaches conceptualize social inequalities in terms of conflict between various groups struggling for advantage over the distribution of valuable resources (Parkin, 1979). Social inequalities are generated and reproduced because the advantage of some groups causally depends upon others being disadvantaged (Roemer, 1982). From this viewpoint, mental health disparities are viewed in relational terms, or the ways in which some people have control over economic resources while excluding others (e.g., credentialed vs. noncredentialed) or the ways in which social class positions empower some people control over the work of others (e.g., owner vs. manager vs. worker). Social closure and social class are two approaches that begin by examining the relations among SES positions and their impact on mental health outcomes.

Defining Social Closure

Social closure refers to the process by which a collective group seeks to maximize rewards by restricting access to resources and opportunities to a limited circle of eligible group members (Weber, 1946). Viewing social closure as a mechanism of exclusion reveals how unequal amounts of resources lead to mutually exclusive social cleavages (Wright, 1979) and how access to and exclusion from certain economic opportunities create social inequalities and mental health disparities. For example, in order for certain jobs to confer high income, special advantages, and occupational prestige, it is necessary for their incumbents to have various means of excluding others from access to these positions. Examples of social closure are found in all privileged groups, for example, systems of accreditation, formal membership of professional associations, and social clubs with expensive or limited memberships.

The idea of social closure, also referred to as opportunity hoarding, was first developed by Weber, and has been advanced through the works of Parkin (1979) and Bourdieu (1986). According to Parkin, two types of social closure are exclusion and usurpation. The former refers to practices that separate the group from "outsiders," and the latter refers to a strategy adopted by less privileged groups to gain advantages that others are monopolizing. Forms of social closure deemed as legitimate in modern capitalist societies are property relations (class) and qualifications (credentials) (Parkin, 1994). Class and credentials are considered mostly meritocratic forms of social closure as opposed to ascribed criterions such as race or gender (Parkin, 1994).

Bourdieu (1986) argues that social inequalities arise between various groups competing over three basic forms of capital: economic, cultural, and social. Each form of capital represents an important sector of society and can be transferred from one sphere into another. Economic capital, measured as income and wealth, is exercised through property rights and financial capital by the economic and productive sectors (Calhoun, 2000). One common form of economic hoarding is the protection and enforcement of citizenship rights through restrictive and punitive immigration policies (Milanovic, 2011). Cultural capital assumes various forms and is most often conceptualized as educational credentials (Bourdieu & Passeron, 1990). Social capital refers to social obligations of acquaintance and recognition inherent to a valued position within a collectivity (Bourdieu & Passeron, 1990), including the recognition of authority positions in organizations, for example.

Taken together, these three different forms of capital are held and exercised by individual actors and social groups, all of whom are engaged in a *social game* and *social struggle* to acquire more capital (Calhoun, 2000), contributing to the production of social inequalities.

Social closure limits access to valued forms of capital through the acquisition of skills, knowledge, credentials, and credentialism. Credentialism refers to the requirement that individuals hold advanced degrees as a condition of employment (Parkin, 1979). Skills and knowledge are valuable characteristics that are earned and possessed by individuals (Bourdieu, 1986). Credentials distinguish which skills and knowledge bases are socially valued (e.g., high school, bachelor's, professional degrees), and recognized as important forms of cultural capital (Bourdieu, 1986). As such, credentials contribute to social inequalities through access to restricted labor markets, privileged organizational positions, and advantageous social networks (Clement & Myles, 1994); and through exchange for other highly valued forms of capital such as income and wealth (Bourdieu & Passeron, 1990).

To date, how social closure might produce mental health disparities remains relatively unexplored in sociological research. One of the few examples includes a study by Vanroelen, Levecque, Moors, and Louckx (2010) examining mechanisms linking credentialed skills with emotional well-being. Using a representative cross-sectional sample of 11,099 Flemish wage earners, credentialed skills were assessed using three educational levels (no/lower secondary; secondary; higher non-university and university education) and eight occupational categories (un/semi-schooled manual; schooled manual; non-manual routine; educational; healthcare; other professionals; middle management; higher management). Credentialed skills had a clear indirect effect on well-being through differential exposure to occupational stressors, suggesting that credentialed skills both reinforce and moderate the link between socioeconomic status and mental health disparities (Vanroelen et al., 2010).

Defining Social Class

While social stratification and social closure emphasize, respectively, the ranking of individuals and restriction of privileged opportunities, social class calls attention to the ongoing conflict between employers, managers, and workers that generate social inequalities and mental health disparities (Muntaner et al., 1998). This relational framework begins with the concept of neo-Marxian social class (NMSC), which represents an alternative approach to social stratification with its emphasis on relations of ownership and control over productive assets (e.g., physical, financial, organizational) as the primary determinant of social inequalities in economic resources (Wright, 2000). NMSC conceptualizations are derived from the perspective that capitalist societies are systematically structured into distinct social classes and that social actors and groups are related to each other through relations of production; that is, by control over productive assets, namely technology (e.g., means of production) and work organizations (e.g., labor) (Wright, 1985). In recent decades, NMSC measures have been used to test sociological hypotheses on class structure in various countries (e.g., the relation between social class and gender, political attitudes, cross-class friendships) and have empirically documented the rise of the middle class (Wright, 1985, 1989, 2000).

Accompanying these developments has been a greater interest in understanding and explaining the relationship between social class and mental health disparities. Instrumental to this work has been Erik Olin Wright's social class scheme, which measures social class relations along three dimensions: (1) *ownership* of productive assets, (2) *control* and *authority* relations in the workplace (e.g., control over organizational assets), and (3) *skills* and *expertise* (Wright, 2000). Wright's map of social class locations is shown in Fig. 11.1.

Using data from the ECA survey, Muntaner and colleagues (1998) tested Wright's class scheme, and in particular, the mental health consequences of "contradictory class location," which refers to situations where supervisors are caught between managers and workers, and have little impact over the decisions of top management, but are responsible for workers' performance. Low-level supervisors displayed higher rates of major depression and alcohol disorders than either managers or workers, and were 2.6 times more likely to suffer from anxiety disorders compared to high level managers (Muntaner et al., 1998). These findings lend support to Wright's contradictory class location hypothesis and the idea that mental health may be affected by role conflict and divided loyalists posited by (Wright, 2000).

The primary advantage of adopting a social class approach to mental health involves its potential to add explanatory power over and above conventional gradient approaches (Muntaner et al., 1998). Although social stratification approaches have proven to be powerful predictors of mental health disparities, they do not reveal the social mechanisms that explain how individuals come to accumulate different levels of these economic, power, and cultural resources. In this respect, NMSC's theoretical value lies in its conceptualization of social classes as being the result of mechanisms of domination and exploitation. Acknowledging that some economic positions accord power over the lives and activities of others leads to different explanations for observed mental health gradients. Despite the potential importance of control over productive assets (property and power at work) as determinants of population mental health and mental health disparities, most sociological research on mental health does not include measures of social class (Eaton, 2001). At the same time, Wright's social class scheme is limited in its capacity to measure exploitation, since it relies on the degree of *domination* between *ownership* capitalists (exploiters) and workers (exploited) as an approximation of exploitation.

In theory, NMSC analysis should focus on how the realization of exploiters' interests harms the economic interests of the exploited; however, in practice, the concept of contradictory locations within class relations focuses almost exclusively on relations of domination rather than exploitation (Wright, 1989). Another limitation stems from the lack of differentiation between different types of capitalists (industrial, landlord, financial), a common distinction of classical Marxian class theory (Muntaner & Lynch, 1999). The differentiation among workers according to contract type (temporary, flexible, on call, contract work, self-employed worker, informal work), also known as nonstandard work arrangements, supports the need to refine measures relevant to working class groups. The growing prominence of financial capital and nonstandard work arrangements in the last 30 years (Quesnel-Vallée, DeHaney, & Ciampi, 2010) reveals the urgent need to develop new class indicators that can adequately deal with the complexity of contemporary capitalism.

Sociological Approaches to Social Inequalities in Mental Health: A Summary

Table 11.1 summarizes the major differences between social stratification, social closure, and social class approaches to mental health, presenting key conceptual differences on the nature of social inequalities, power dynamics, and policy implications for reducing mental health disparities.

Table 11.1 Sociological approaches to social inequalities in mental health: a summary

	Social stratification	Social closure	Social class
Theoretical paradigm	Weber	Neo-Weberian/Bourdieu	Neo-Marxian
Nature of inequality	Gradational	Relational	Relational
Orientation	Microlevel	Micro/mesolevel	Meso/macrolevel
Focus	Individual attributes, material conditions, and "life chances" (e.g., income, education, occupation, wealth)	Accreditation, licensing, private-property rights	Social class relation to productive assets, exploitation and domination, skills/credentials
Causes of social inequality	Individuals are stratified into different positions based on life chances	Social classes are generated and protected through exclusionary mechanisms	Social classes are generated and reproduced along exploitative production relations
Source of power	Individual power results from possession of attributes and material life conditions	credentials, licenses, managerial and property rights provide access to and exclusion from economic opportunities	Employment relations accord some people power over the lives and activities of others
Distribution of power	highly concentrated between individuals (e.g., affluent vs. poor)	Highly concentrated between opportunity hoarders and non-hoarders (property owners and property less, credentialed vs. uncredentialed)	highly concentrated between exploiters vs. exploited(e.g., capitalists vs. workers)
Inequality mechanism	"Life chances" stratifies individuals into different groups	Opportunity hoarding and social closure protects the privileges and advantages of specific groups	The process of production appropriation and distribution of surplus value between different social classes generates economic inequality
Illustrative question	How do people obtain the SES resources that affect their occupations in the labor market which in turn affect their mental health?	What mechanisms of exclusion sustain the privileges of those in middle-class positions?	How do exploitation and conflict between owners of means of production and workers who supply labor lead to systematic differences in mental health?
Hypothesized effects	Gradient effect, SES corresponds to mental health status	Gradient effect, opportunity hoarding and excluded status predicts to mental health status	Nonlinear, mental health dependent on level of exploitation and domination exerted and experienced by different social classes
Implications for improving mental health	Redistribute resources, provide college loans, increase minimum wage and employment opportunities	Removing mechanisms of exclusion to undermine the advantages of those who benefit from hoarding (adopt a single payer NH system, citizenship rights to undocumented immigrants)	Increase working class power and unionization rates, elect prolabor political parties, organize social movements to reduce exploitation
Advantages	SES indicators offer high-predictive value of risk factors, easy to interpret, widely available	Acknowledges the economic advantages gained from being in a privileged position is casually connected to the disadvantages of those excluded	Considers social relations in capitalist societies, identifies inequality generating mechanisms in the labor market and in the workplace simultaneously
Limitations	Mostly descriptive; limited explanatory power	Does not deal with how social class works at the point of production	Measurement of exploitation is underdeveloped; the concept is controversial and contested

A significant difference among three approaches that receives little to no attention is how power is understood in terms of producing social inequalities in mental health. The stratification approach implicitly adopts a power-elite model that views power as highly concentrated among high SES individuals (Mills, 1956). High SES individuals constitute a privileged group of people who possess the majority of society's wealth, occupy its most prestigious professions, and exercise a disproportionate share of power. As a result, mental health disparities represent the unequal SES outcomes of powerful and powerless individuals. From a NMSC point of view, power is understood within a political economy context. It follows that economic institutions and capitalists relations are inherently biased toward producing socioeconomic inequalities, which are connected to the class structure and sustained by the exercise of power. Capitalists or power elites are not natural actors in the social structure; they are constructions of capitalism itself. Reducing mental health disparities, therefore, requires resolving inherent problems rooted in capitalist relations (e.g., exploitation, supervision, monitoring of labor, and sanctions to enforce discipline). Given these power dynamics, social struggles seeking to challenge these forms of power could narrow and redress mental health disparities. Measuring social class taps into parts of the social variation in mental health that are not captured by conventional measures of social stratification, leading to new hypotheses such as Wright's contradictory class location.

Another important difference among these approaches includes the potential policy options that reduce mental health disparities. While the stratification model favors redistributive policies (e.g., progressive taxation, college loans, and basic income entitlements) to improve mental health, the social class framework endorses more fundamental shifts in power and social relations, such as workplace democratization, workers' bargaining rights, and union representation to redress social inequalities (Muntaner et al., 1998).

Recent Developments

In this section, we briefly describe emergent research in the areas of SES, social closure, and social class.

Assessing the mental health effects of contextual SES indictors (e.g., rates of neighborhood poverty or income inequality) has emerged as an important area of sociological inquiry (see Chap. 23), showing an impact of contextual SES on mental disorders even after accounting for individual SES. Findings consistently support an inverse relationship between neighborhood SES and mental disorders across various study designs, geographic areas, levels of aggregation, and outcomes. In addition, the contextual effect of income inequality has also been found to be an important sociological predictor of mental health disparities (Henderson, Liu, Diez Roux, Link, & Hasin, 2004; Weich, Lewis, & Jenkins, 2001). It follows that the distribution of income in society has a contextual impact over and above individual incomes on population levels of mental health, such that individuals tend to have worse mental health in unequal societies (Subramanian & Kawachi, 2004). However, questions remain about potential confounding (e.g., by the compositional characteristics of areas such as race/ethnicity, education, and individual income), and there is only limited information about pathways and mechanisms. Given that income inequality studies have also primarily relied on cross-sectional or short-term prospective studies, more longitudinal are needed to establish causality (Driessen, Gunther, & van Os, 1998).

Sociological research on the impact of social closure and opportunity-hoarding mechanisms on mental health remains in its infancy. Yet, early evidence suggests that possessing credentialed skills and knowledge translates into possessing material and psychosocial resources, which then increase the likelihood of better mental health, positive health behaviors, and illness prevention (Lahelma, 2001). Thus, apart from the health-promoting potential of skills and knowledge with regard to health behaviors and coping resources, credentials can be assumed to have their own mental health effects. In the context of employment, credentials are related to the rewards and costs associated with work.

As a consequence of the skills rent (e.g., compensation paid to skilled employees that exceeds the cost of producing and reproducing their labor power), higher material rewards can be expected for employees who possess high credentials (Wright, 2005). Skills and credentials also influence job content, revenue, exposure to psychosocial and physical workplace hazards, social protection, and benefits, all of which are related to mental disorders (Borrell, Muntaner, Benach, & Artazcoz, 2004; Vanroelen et al., 2010).

A small yet growing body of research has examined the link between social class and mental health within a neo-Marxian framework (Borrell et al., 2004; Muntaner, Borrell, Benach, Pasarín, & Fernandez, 2003; Muntaner & Parsons, 1996; Muntaner et al., 1998; Muntaner et al., 2009; Wohlfarth, 1997). These studies begin with the sociological hypothesis that social class has important consequences for the lives of individuals insofar as social class determines an individual's legal right and power to control productive assets and to acquire income and material resources. For example, the class position of "business owner" compels its members to hire "workers" and to extract labor from them, while the "worker" class position compels its members to find employment and perform labor. Given that social class is conceptually distinct from social stratification, it is not surprising that research has found that social class affects mental health over and above standard SES indicators. To date, two findings have emerged from this research: (1) social class and socioeconomic the relation between socioeconomic position (SEP) and mental disorders status models lead to different hypotheses regarding; and (2) measures of social class and socioeconomic status are not empirically equivalent (Muntaner, Borrell, & Chung, 2007; Muntaner, Li, et al., 2004). One study (Wohlfarth, 1997) found a small overlap between socioeconomic status and social class measures, but the association between social class and depression, as assessed by the Research Diagnostic Criteria (Spitzer et al., 1992), could not be accounted for by socioeconomic status (i.e., education and occupational prestige).

Recent studies have found compelling evidence of a nonlinear relation between social class and mental health (Muntaner et al., 1998, 2003). For example, Muntaner and colleagues (Muntaner et al., 2003) examined the association between social class and mental health among working men aged 16–64 and found that low-level supervisors, who do not have policy-making power but can hire and fire workers, reported higher rates of depression and anxiety than both high-level managers (who have organizational control over policy and personnel) and front-line and nonmanagerial workers. Control over organizational assets is determined by the possibility of influencing company policy (making decisions over number of people employed, products or services delivered, amount of work performed, and size and distribution of budgets) and by sanctioning authority over others in the organization (granting or preventing pay raises or promotions, hiring, and firing or temporally suspending subordinates). The repeated experience of organizational control at work protected most upper-level managers against mood and anxiety disorders. Low-level supervisors, in contrast, were simultaneously subjected to "double exposure": The demands of upper management to discipline the workforce and the antagonism of subordinate workers, while exerting little influence over company policy. Thus, supervisors, occupying a "contradictory class location" had higher levels of depression and anxiety than upper management or non-supervisory workers.

Given that gender inequalities represent a substantial source of socioeconomic inequality, more gender-specific studies are needed. One of the few examples on the gendered patterned between social class and mental was undertaken by Borrell and colleagues (Borrell et al., 2004), who tested the link between ownership and control over productive assets and self-perceived health, a consistent and reliable correlate of mental health (Singh-Manoux et al., 2006). Among men, results revealed that the prevalence of poor health was significantly higher among small employers and petit bourgeois, supervisors, semi-skilled and unskilled workers compared to managers and supervisor experts. In contrast, among women, only unskilled workers had poorer health status than managers and skilled supervisors. Explaining these associations involved different mediating factors for men and women. For men, part of the association between social class positions and poor health was accounted for by psychosocial and physical working conditions and job insecurity. For women, the association between worker class positions and health was explained in large part by working conditions, material well-being at home, and amount of household labor. These findings underscore the need for future research to incorporate household measures of social class and wealth, and also examine gender-specific exposures to comprehensively explain the effects of social class on mental health disparities.

Interrelationships

Different power relations need to be integrated into sociological models to better understand how mental health variations reflect multiple social positions and the full intersection of various political, economic, and cultural resources. To provide a fuller picture of social inequalities in mental health, we review the interrelationships between social inequalities and race, ethnicity, and gender.

Race and Ethnicity

Both race and ethnicity are socially created categories, which are representative of social relations such as nationalism, colonialism, imperialism, and racism. We agree with Karlsen and Nazroo's (2002) notion that race and ethnicity reflect the dualism of individual identity and social structure, both of which influence access to resources. Psychiatric epidemiology and sociology have both found general trends of inverse associations between social inequalities and mental health across racial and ethnic groups (Williams, Takeuchi, & Adair, 1992; Williams, Yu, Jackson, & Anderson, 1997). Zahran and colleagues (Zahran et al., 2005) examined the prevalence of frequent mental distress (FMD) among US adults by race/ethnicity and SES using aggregate data from the Behavioral Risk Factor Surveillance System surveys for 1993–2001. Across all racial/ethnic populations, respondents with high SES were least likely to have FMD. For high-SES respondents, the prevalence of FMD was highest among non-Hispanics of other race (7.9%) and American Indians/Alaska Natives (7.7%) and lowest among Asians/Pacific Islanders (3.8%). Non-Hispanic whites, non-Hispanic blacks, and Hispanics had intermediate FMD prevalence rates (4.7%, 6.1%, and 5.9%, respectively). In all racial/ethnic populations, persons with low SES were at least twice as likely to have FMD as those with high SES (Zahran et al., 2005). More detailed observations have found that at low levels of SES, African Americans experience higher rates of psychological distress compared to their white counterparts (Kessler & Neighbors, 1986). In terms of social class models, no studies, to date, have examined the interactive effects of NMSC concepts and race on mental health.

Explaining the associations between SES and racial differences in mental health reveals an ongoing debate among sociologists as to whether primacy should be given to race or social class to explain mental health outcomes. A race-based explanation argues that unequal power relations (e.g., individual and institutional levels of racism) between racial groups results in differential exposures to SES attainment and stressful experiences, which lead to negative mental health outcomes (Keyes, Barnes, & Bates, 2011). For example, African Americans are overrepresented in low-SES positions because historical and contemporary forms of racism and discrimination have denied them the educational and employment opportunities necessary for upward social mobility (Williams, Neighbors, & Jackson, 2003). Thus, racial minorities experience higher rates of mental disorders because they are more likely to be materially deprived (e.g., poverty, low-paid jobs, unemployment, poor housing). From a class-based approach, various scholars have theorized that racial inequalities reflect neo-Marxian class relations (Miles & Phizacklea, 1984). Though this work remains unexplored in the empirical literature, it offers some provocative ideas on the potential links between racial minorities, exploitation, and mental health. It follows that racial inequalities may emerge as an epiphenomenon of social class and its relation to means of production (Miles & Phizacklea, 1984). For example, countries in high demand of labor often fill this need with racial minorities, who are relegated to manual, lower-level, and unskilled jobs, thus forming a racialized working class. According to Bolaria and Li (1988), this process of racialization occurs in capitalist systems because "race problems begin as labor problems" (p. 7). Racism, therefore, serves as a rationale for exploiting labor, which in theory contributes to the social production of racial inequalities in mental health.

Gender

Males and females experience similar aggregate rates of mental health disorders; however, they suffer from different types of psychiatric problems (Macintyre, Hunt, & Sweeting, 1996). Females are more likely to internalize disorders such as depression and anxiety (Jenkins et al., 1998), while males predominate in externalizing disorders (e.g., aggressive and antisocial personality traits) (Kessler et al., 1994). Men also tend to experience more problems with work and family because of drugs and alcohol abuse and dependence (Kessler et al., 1994). Although gender differences in mental health are well-documented, research on gender and SES inequalities and mental health lags significantly behind. This lack of research may be explained in part by the differential and inconsistent effects of SES measures (e.g., income vs. education) for men and women. For example, Matthews, Manor, and Power (1999) examined the relation among income, education, gender, and psychological distress using a national British sample. Findings revealed that the relationship between SES and mental health was different for men and women. SES inequalities showed greater inequality among women for poor health at age 23 and psychological distress at age 33, revealing an inconsistencies across SES indicator, outcome measure, and life stage. Even less research has explored the mental health consequences of gender inequalities, understood in terms of organizational inequality, gendered occupations, and wage inequalities.

Understanding gender differences in mental health in terms of social inequalities often relies on gender-specific theoretical frameworks based on occupational segregation. For men, the primary focus has been on understanding mental health outcomes through characteristics of paid work (Karasek & Theorell, 1990). These studies examine how features of male-dominated jobs (e.g., dangerous and prestigious occupations such as construction trades and positions that confer a great deal of income and power, respectively) affect psychological orientations and mental health status. In general, the extant literature supports the predictive value of job characteristics such as lack of control, job/environmental strain, inadequate rewards, and low levels of decision latitude and social support to predict poor mental health among workers. Though informative, much of this work does not account for larger macroeconomic structures.

The mental health outcomes of women are often understood in terms of balancing work and home responsibilities (see Chap. 21). On one hand, women are overrepresented in the lowest paid jobs (e.g., clerical and service work), which offer limited opportunities for advancement and increase the likelihood of psychological distress. On the other hand, women are also burdened with the "second shift" of tending to household duties and responsibilities. Women disproportionately perform most of the domestic labor yet have less control over domestic resources (Moss, 2002). The importance of household labor for women's mental health has been substantiated in several studies (Hartley, Popay, & Plewis, 1992). Also key are differences among women themselves which play an important role in determining material circumstances and mental health outcomes. For example, women are more likely to be single parents, which are associated with material disadvantage and with poorer mental health for both mothers and their children (Arber & Thomas, 2001).

Altogether, the complexities of social inequalities in mental health in terms of race, ethnicity, and gender are best understood when these factors are simultaneously tested for interactions. To disentangle the complex interactions between these variables, studies need to examine the joint and isolated effects of each variable. For example, Williams et al. (1992), using ECA data, found that low-SES black women had higher rates of alcohol and drug abuse disorders compared to their white counterparts. Conversely, low-SES white males had higher rates of psychiatric disorder than their low-SES black counterpoints. In another study, Almeida-Filho and colleagues (Almeida-Filho et al., 2004) examined the association between gender, social class (upper, middle, working class, poor), race/ethnicity (white, Moreno, mulatto, black), and prevalence of depressive disorders in an urban sample in Bahia, Brazil. Findings indicate a strong, consistent three-way interaction: (1) none of the racial/ethnic subgroups among the upper middle class yielded a significant gender effect; (2) women had a higher prevalence of depression in all racial/ethnic subgroups (except whites of poor and working-class origin); and (3) poor, working class, black women were nine times more likely to have a depressive disorder than men in the same social class. These examples and their interactive findings demonstrate the inherent complexity involved with understanding the relationship between mental health outcomes and multiple systems of stratification and inequality. Associations between social inequalities, race, ethnicity, gender, and mental health are neither simple nor straightforward. As a consequence, future research should exercise greater sensitivity to the differential effect of ascriptive factors on social inequalities and mental health.

Social Selection and Social Causation

An important and longstanding debate concerns the interpretation of social inequalities and mental disorders (Dohrenwend et al., 1992; Faris & Dunham, 1939; Hudson, 2005; Link, Lennon, & Dohrenwend, 1993; Miech, Caspi, Moffitt, Wright, & Silva, 1999): Do societal differences in advantages and disadvantages cause individual differences in mental health, which is the *causation* hypothesis, or do individual differences in mental health lead to differences in social advantage, which is the *selection/drift* hypothesis (Eaton et al., 2001)? These two influences operate with varying degrees of strength across a wide spectrum of mental disorders (Dohrenwend et al., 1992; Johnson, Cohen, Dohrenwend, Link, & Brook, 1999; Miech et al., 1999; Ritsher, Warner, Johnson, & Dohrenwend, 2001). However, it also seems likely that disabling disorders with high levels of inheritance and clear developmentally early biological origins, such as schizophrenia, are much more likely to be consistent with the selection/drift alternative, even if *social* reaction to mental illness can account for the degree of "selection/drift" (Saraceno, Levav, & Kohn, 2005). Aside from some major mental disorders, such as schizophrenia and bipolar disorder that have very strong inherited influences (Eaton et al., 2006; Eaton, Pederson, Nielsen, & Mortensen, 2010), most mental disorders are less strongly influenced by inherited factors and vary considerably in the disability they produce, thus making it critical to further explore and understand how social inequalities contribute to their development and course (Eaton, 2001).

Social selection refers to the idea that individuals who have or who are predisposed to mental disorder have lower than expected educational, occupational, and social class attainment. This hypothesis gives causal priority to the onset of mental illness as a factor preceding the disadvantaged placement of individuals into socioeconomic positions or social classes. Drift suggests that those with mental disorders are likely to move down the SES ladder or social class positions. Alternatively, social causation explanations emphasize how the social experiences of members of different social classes influence their likelihood of experiencing poor mental health (Link et al., 1993; Ritsher et al., 2001). Causation accounts emphasize stratification indicators and social class relations as primary determinants of mental health disparities. Variations do exist within the social causation approach, including economic stress (e.g., poor mental health results from stressful economic conditions, such as poverty, unemployment, and housing affordability) and family fragmentation (e.g., poor mental health is a function of the fragmentation of the family structure and lack of family supports). We review the explanatory power of each approach to separate the "causes" and "effects" of social inequalities and mental health. Since the predictive power of selection-causation explanations is strongly related to the type and rigor of research designs, we organize our review by study design: cross-sectional designs, natural experiments, and longitudinal studies.

Cross-sectional studies are the most common approach used to examine whether inverse associations between psychiatric disorders and SES are due more to causation or selection (Kessler, House, Anspach, & Williams, 1995; Link, Dohrenwend, & Skodol, 1986). For example, Dohrenwend and colleagues (Dohrenwend et al., 1992) compared patterns of illness among various ethnic and social class groups in a birth cohort sample from Israel ($N=4{,}914$) using a cross-sectional design. The temporal order of variables was controlled through ethnicity's ascriptive status and SES's dependence on educational and occupational attainment. Findings indicate social causation was stronger than social selection in producing the inverse association between SES and major depression in women, and substance abuse and antisocial personality in men. For schizophrenia, however, the evidence was more supportive of the social selection explanation. These findings were instrumental to the overall field, suggesting that selection-causation accounts can differ in relative importance by gender and mental health outcome.

A second approach involves taking advantage of naturally occurring events in the social world, following individuals over time, and determining the temporal ordering of variables. For example, Hamilton, Broman, Hoffman, and Renner (1990) examined the mental health effects of plant closings among auto workers and found that redundant employees were more likely to experience mental health problems. Similarly, Fenwick and Tausig (1994) used natural experimental methods to examine the occupational and mental health impact of Census based unemployment rates. Higher unemployment rates resulted in lower levels of worker job satisfaction and well-being. Since the mental health outcomes in these examples could not have *caused* the closing of auto plants or increased unemployment rates, the results largely support a social causation interpretation. To date, natural experiments have not been widely used in the extant literature due to the inherent difficulties with carrying out such designs.

Longitudinal designs also have been used to clarify whether social inequalities precede the onset of mental health outcomes or vice versa. Several studies have found strong and consistent negative associations between socioeconomic conditions and mental illness after controlling for confounding variables, providing convincing evidence for role of social causation. These studies include, for example: community-level SES affecting rates of acute psychiatric hospitalization (Hudson, 2005); low parental education increasing the risk of offspring depression (Ritsher et al., 2001); higher status occupations that afford more control and planning duties reducing the risk of depression (Link et al., 1993); job layoffs leading to the emergence or reemergence of alcohol abuse (Catalano, Dooley, Wilson, & Hough, 1993); and low family SES increasing the risk for offspring of anxiety, depressive, disruptive, and personality disorders (Johnson et al., 1999).

Past research has considered selection and causation mechanisms among youth and young adults, leading to new and stimulating findings. For example, using data from the Dunedin Multidisciplinary Health and Development Study ($N=1{,}037$), Miech and colleagues (Miech et al., 1999) followed a cohort from birth to age 21, and tested the relation between four mental disorders and educational attainment. Findings revealed a unique relationship with SES for each outcome variable: (a) social causation explained anxiety; (b) neither causation nor selection explained depression, suggesting the absence of effects of SES on depression before age 21; (c) antisocial disorders were jointed influenced by selection and causation effects; and (d) attention deficit disorder pointed to selection processes among youth.

Existing evidence supports both social selection and social causation explanations; however, their respective mechanisms are not mutually exclusive. Instead, selection and causation processes appear to operate independently at times, jointly at others, and sometimes these influences operate in both directions, varying in importance depending on the mental health outcomes that are studied, the research designs that are used, and whether life-course dynamics are considered (Dohrenwend et al., 1992). Next steps include refining theoretical paradigms to account for more disorder-specific dynamics, replicating provocative findings across different cultures and historical periods, and integrating causation and selection to understand mental health trajectories over the life cycle (Eaton & Muntaner, 1999). As with most questions concerning the association of SES and mental disorders, the answer to this question requires the continued use of longitudinal studies with repeated measures of social inequalities and mental health outcomes. It is worth noting that our review could not identify any studies using NMSC concepts to test the direction of causal processes leading to mental health disparities, revealing a significant gap in our knowledge base.

Directions for Future Research

Based on this chapter's review and conclusions, it is clear that systematic inequalities in mental health exist across social stratification and social class, and that these are modified by other forms of social inequality such as race, ethnicity, and gender. However, limitations remain and more work is needed to further conceptualize the nature of mental health disparities, adequately explain their underlying determinants and causal mechanisms, and most importantly, from the perspective of public sociology, identify, implement, and evaluate policies that narrow the gap between social strata and social classes. To guide future work, we identify three directions for further inquiry: improving social class measures, collecting new prospective data over a nontrivial proportion of the life course, and studying labor-specific populations.

More theoretically grounded measures based on inequality-generating mechanisms (e.g., employment relations), and in particular exploitative relations, are needed to advance sociological research on social class and mental health. To date, the field has primarily followed the lead of Wright (2000) and has tested his social class scheme based on property relations (Eaton & Muntaner, 1999; Wohlfarth, 1997). However, the underlying mechanism of exploitation, or the amount of labor effort extracted from the "employee by the employer" (Wright, 2000), remains largely unmeasured and is not taken into consideration. A handful of studies have attempted to overcome this limitation. For example, recent investigations have assessed the predictive value of class exploitation and depression using organizational level measures that capture both property relations and the extraction of labor effect (Muntaner, Eaton, et al., 2004; Muntaner et al., 2006). Results find that exploitation measures, for-profit ownership, managerial domination, and lack of wage increases are strong predictors of depressive symptoms, suggesting the potential utility of this line of inquiry.

Increasingly, mental health disparities research has been devoted to understanding SES as time varying exposure (e.g., childhood, young adulthood, active professional life, and retirement) (McLeod & Fettes, 2007; Miech et al., 1999). Adverse SES in early life is a strong predictor of adult mental illness independent of adult SES (Wickrama, Conger, Lorenz, & Jung, 2008). Prospective studies report higher mental disorders among those who experience adverse SES at different periods of the life course. Existing databases and future data sources should not only incorporate refined measures of social class relations (e.g., Jha et al., 2006) but also increase the methodological rigor of their study designs. The reliability and validity of new social class indicators would benefit from being tested in longitudinal designs with repeated assessments using DSM-style diagnostic instruments. This would significantly improve upon current studies, which heavily rely on cross-sectional designs (Borrell et al., 2004; Muntaner et al., 1998, 2003; Wohlfarth, 1997), and would also expand the scope of hypothesis testing to include critical period effects (birth, childhood, adulthood, old age), as well as selection-causation issues. The combination of using new measures over time would provide new insights on how stratification and social class processes interact with periods of high vulnerability to produce different mental health outcomes over the life course (George, 2007).

Studies using social class measures have generally relied on working population samples (Stansfeld, Head, Fuhrer, Wardle, & Cattell, 2003). Although this option is intuitive and straightforward, exclusively focusing on employed individuals tends to overlook the extent of economic inequality in the general population and the mental health effects among persons not currently employed. Samples comprised of workers studies reflect a healthy worker bias insofar as workers tend to have at least a minimum level of mental health to be employed, whereas the general population includes the full spectrum of positive and negative mental health cases (Martikainen & Valkonen, 1999). Therefore, an important challenge for future research involves applying social class indicators based on employment relations beyond those formally employed such as informal workers, nonstandard employment arrangements, household labor, and unpaid labor. Of specific importance in social class indicators based on employment relations is the integration of situations of underemployment, nonstandard employment relations, or precarious employment.

In 2002–2003, the NCS-R was replicated in 72 countries from all regions in the world under the auspices of the World Health Organization and through its World Mental Health Survey Initiative (WHO-WMH) (Kessler & Üstün, 2000). Obtaining global information about social inequality variables and mental disorders represents an important development in the sociology of mental health disparities. This includes taking advantage of comparative methods to gain a better understanding of the causal forces that operate at macrolevels (e.g., institutions, structures, and processes) and are determinants in their own right of systems of social stratification, social closure, and social class. For example, global studies adopting comparative methods can identify fundamental similarities and dissimilarities across social inequalities in mental health. If mental health disparities in one country are worse and larger than in another, this offers guidance on reducing these disparities in the latter country. Studies using the WHO-WMH to examine social inequalities in mental health within and among countries have been limited and warrant further attention.

Conclusions

We have reviewed the nature of mental health disparities by comparing and contrasting gradational (social stratification) and relational (social closure and social class) approaches to explaining how social inequalities are generated within a society and the underlying pathways and mechanisms that are responsible for mental health disparities. It is clear that systematic inequalities in mental health exist across social stratification (e.g., income and education), occupational hierarchies (e.g., prestige), and social class (e.g., capitalists vs. managers vs. workers). Further, we have seen that these variables interact with other systems of stratification such as race, ethnicity, and gender, producing a complex social pattern of differences in mental health across populations.

The key message from this chapter is that social class indicators based on employment relations are able to uncover a set of social mechanisms (e.g., employer-worker; manager-supervisor-nonmanagerial worker) that are associated with mental health disparities. Despite a relatively small amount of studies compared to the stratification indicators, the encouraging evidence on mental health associations with relational indicators supports the continued use and development of social class concepts and measures in the sociology of mental health. Overall, the empirical literature reviewed gives support to the notion that the degree of social inequalities in population mental health is both a function of individual attributes *and* of the social relations that constrain and regulate the process of acquisition and distribution of income and other distal or proximal exposures to risk and protective factors. Social stratification and social class remain complementary and fertile traditions in the sociology of mental health because of the key problems they address (e.g., the causes of mental health disparities), the strength of their theoretical foundations (e.g., neo-Weberian and neo-Marxian ideas about fundamental social divisions), and the explanatory power of the concepts and mechanisms that both continue to generate.

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Chapter 12
Social Stratification and Inequality

Jane D. McLeod

Abbreviation

AFDC	Aid to Families with Dependent Children

Social stratification refers to the unequal distribution of valued resources across social groups. The resources that underlie stratification systems are both tangible and intangible: economic, political, social, civil, but also cultural and honorific (Grusky, 1994; Weber, 1922/1958). In the USA, the most widely recognized stratification systems are based on social class,[1] race/ethnicity, and gender. Systems of stratification are maintained through institutional and interpersonal processes by which dominant groups assert and maintain control over valued social resources. These processes—variously referred to as social closure, exploitation, opportunity hoarding, othering, and boundary maintenance (Roscigno, Garcia, & Bobbitt-Zeher, 2007; Schwalbe et al., 2000; Tilly, 1998; Tomaskovic-Devey, 1993)—produce and reproduce social advantages for dominant groups and social disadvantages for their subordinates.

Research on stratification and mental health aims to understand how experiences of advantage and disadvantage affect individual well-being.[2] In Pearlin's (1999) words, "(s)ociological interest in mental health and disorder is rooted in its mission to identify elements of social life that have dysfunctional consequences" (p. 410). Early research in this area was motivated by the straightforward, and seemingly reasonable, assumption that social disadvantages create mental health disadvantages. Recent empirical research challenges that assumption. For example, although women are socially disadvantaged relative to men, they differ from men in the types, rather than the level, of mental health problems they experience (see Chap. 14). Similarly, although Blacks are socially disadvantaged

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[1] The terms "social class," "socioeconomic status," and "socioeconomic position" are defined and used in various ways by mental health researchers. I use the term social class here to emphasize that the resources that vary according to traditional indicators of socioeconomic status are more than socioeconomic in nature. Social classes differ in terms of lifestyles and prestige as well as in terms of tangible resources, both of which are relevant to understanding mental health differentials.

[2] Because this chapter covers many specific areas of research, citations are necessarily selective.

J.D. McLeod (✉)
Department of Sociology, Indiana University, Ballantine Hall 744, 1020 E. Kirkwood Avenue,
Bloomington, IN 47405, USA
e-mail: jmcleod@indiana.edu

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relative to Whites, Blacks do not consistently report higher levels of distress and do not have higher rates of most mental disorders (Brown, Sellers, Brown, & Jackson, 1999; Kessler et al., 2005). Even the association of social class with mental health problems does not hold for all indicators of social class or at all ages (Harper et al., 2002; Kessler et al., 2005; Miech, Eaton, & Brennan, 2005). In short, the straightforward assumption that social disadvantages create mental health disadvantages is met with a more complex empirical reality.

This complex empirical reality is the consequence, in part, of the multifaceted meanings associated with indicators of social advantage and disadvantage. For individuals, social class, race/ethnicity, and gender represent positions in systems of stratification that signal differential access to valued social resources. Yet, they also represent social categories whose subjective meanings are fluid and negotiable, meanings that can be used to resist the distressing effects of social disadvantage. A key goal for sociologists interested in stratification and mental health is determining whether and how these subjective meanings modify the effects of objective disadvantage (see also Conger, Conger, & Martin, 2010).

In this chapter, I review our collective progress toward that goal. I examine two general processes through which stratification is thought to affect mental health and that correspond roughly to my previous distinction between tangible and intangible resources: the distribution of life conditions and social evaluation. The first process corresponds most closely to the traditional concerns of stratification researchers in its emphasis on objective life experiences as explanations for mental health disparities. The second process corresponds most closely to the concerns of social psychologists in its emphasis on subjective evaluations of life experiences and status distinctions. The two processes overlap: social evaluations are influenced by objective life conditions and the effects of objective life conditions depend on how those conditions are perceived. Yet the two processes also are conceptually distinct and merit separate consideration. For each process, I highlight contributions from life course research and research on emotions—areas of increasing influence.

The Distribution of Life Conditions

By definition, stratification involves the unequal distribution of life conditions: “the panoply of circumstances that define the quality and character of our social lives” (Weeden & Grusky, 2005, p. 143). Early sociological research on stratification and mental health conceptualized life conditions with reference to components of the stress process model, specifically as stressors and coping resources (Aneshensel, 1992). The stress process model posits that the higher risk of mental health problems among people in socially disadvantaged positions can be explained by their greater exposure to stressors and lesser access to coping resources (intrapsychic, interpersonal, and material). As noted, evidence is mixed as to whether people in socially disadvantaged positions have relatively high levels of mental health problems. To the extent they do, evidence also is mixed as to the role stress plays (Schwartz & Meyer, 2010).

Early research that relied on measures of life-events exposure found that differences in exposure did not account for mental health disparities (Dohrenwend & Dohrenwend, 1969; Langner & Michael, 1963; see Hatch & Dohrenwend, 2007 for a review). Later research that incorporated more comprehensive measures of stressors found stronger evidence for the mediating role of stress exposure for social class and race/ethnicity but not for gender (McDonough & Walters, 2001; Sternthal, Slopen, & Williams, 2011; Turner, Wheaton, & Lloyd, 1995; see Thoits, 2010 for a review), although stress exposure still was not a sufficient explanation. Studies of coping resources generally find that people in socially disadvantaged positions have fewer social and personal resources to cope with stressors, although there are exceptions to this pattern (e.g., the higher self-esteem reported by Blacks as compared to Whites).

Most studies of differential exposure and vulnerability rely on global measures of stressors—sums of life events, chronic stressors, and lifetime traumatic experiences. Although useful for establishing the relevance of stress processes to explaining mental health disparities, global measures are blunt instruments that tell us little about the specific types of stressors associated with social disadvantage or about the specific processes through which stratification affects mental health. The overwhelming reliance of prior research on depression as an outcome also leaves open the possibility that different patterns would be observed for other outcomes (Aneshensel, Rutter, & Lachenbruch, 1991).

Research on the "stress of higher status" illustrates the benefits of measuring specific stressors in stratification research (Schieman, Whitestone, & Van Gundy, 2006). This hypothesis posits that certain role-related strains are more common among people in socially advantaged positions. Consistent with that hypothesis, higher-status jobs are associated with greater work-to-family conflict (Schieman et al., 2006). The types of stressors that are common in higher-status groups appear to be as or more strongly associated with substance use and anger as they are with depression (Martin & Roman, 1996; Schieman & Reid, 2009), supporting an expansion of outcomes.

The limitations of studies that rely on global measures of stressors highlight the utility of studies that focus on specific proximate experiences. The latter complement the former by moving beyond broad descriptive patterns to analyze the processes through which stratification affects mental health.

Generic Resources and Proximate Life Conditions

The life conditions that define stratification hierarchies are experienced within proximate environments. Proximate environments can be characterized by their geographic boundaries (e.g., states, cities, neighborhoods), functions (e.g., workplace, family), structure (e.g., role sets, networks), and quality (e.g., job conditions, marital satisfaction). Life conditions defined by virtually all possible combinations of these characteristics have been examined as explanations for stratification's effects on mental health. Instead of reviewing these many specific experiences, I review research on four generic resources that shape the nature and quality of proximate life conditions: economic resources, social capital, power and authority, and civil rights (Grusky, 1994). By using the term "generic," I intend that these resources can be analyzed across geographic, functional, and structural contexts, although they may take context-specific forms. These resources align with fundamental components of stratification systems that have long intellectual histories in sociology, and they are associated with identifiable lines of research related to mental health. Thus, they link research on stratification and mental health to the sociological mainstream.

Economic Resources

In *The Condition of the Working Class in England in 1844*, Engels (1892/2008) attributed the high rate of alcoholism in the working classes to material deprivation.

> The working-man comes from his work tired, exhausted, finds his home comfortless, damp, dirty, repulsive; he has urgent need of recreation, he *must* have something to make work worth his trouble, to make the prospect of the next day endurable. His unnerved, uncomfortable, hypochondriac state of mind and body arising from his unhealthy condition, and especially from indigestion, is aggravated beyond endurance by the general conditions of his life, the uncertainty of his existence, his dependence upon all possible accidents and chances, and his inability to do anything towards gaining an assured position. (pp. 102–103)

Engels' work presaged the central importance of economic resources to contemporary research on stratification (Weeden & Grusky, 2005). Low income is part of what defines people with low education and occupational prestige, members of racial and ethnic minority groups, and women as socially disadvantaged groups (DeNavas-Walt, Proctor, & Smith, 2010). Poverty, economic deprivation, and financial strain also are common indicators of social class in mental health research, and variation in economic resources is a common explanation for mental health disparities. Although most studies find that economic resources are not a sufficient explanation for mental health disparities based on gender or race/ethnicity (Williams & Collins, 1995), the processes through which economic resources affect mental health are central to the study of stratification.

A primary mechanism by which economic resources affect mental health is through their association with stress exposures. People with limited economic resources experience many specific stressors that increase the risk of mental health problems, including food insecurity, problems paying bills, family conflict, and ill health (Bickel, Carlson, & Nord, 1999; Broussard, 2010; McLeod & Kessler, 1990; Pearlin & Lieberman, 1979). People with limited economic resources also are more likely to live in disadvantaged neighborhoods (Jargowsky, 1996), which exposes them to ambient stressors that further increase their risk of mental health problems (see Chap. 23 for a review).

Life course studies have enriched research on economic resources, stress, and mental health by investigating variation in effects based on the duration and timing of exposure. Exposures of longer duration have more profound effects on mental health. For example, children's mental health declines as poverty persists (McLeod & Shanahan, 1996) and improves with increases in income (Strohschein, 2005). Early deprivations also have effects that persist over time. For example, receiving welfare in young adulthood increases women's levels of distress in later adulthood even when prior distress and current poverty status are controlled (Ensminger & Juon, 2001). Childhood neighborhood economic deprivation also has a significant association with adult mental health independent of adult neighborhood characteristics (Wheaton & Clarke, 2003).

To fully understand these patterns, future research must attend to life course variation in the specific processes that account for the effects of economic resources. Research on adults has focused primarily on perceived financial strain, chronic stressors, ambient stressors, and social support as mediators of the association of economic resources with mental health (Heflin & Iceland, 2009; Schulz et al., 2006). In contrast, research on children has focused on family process variables, such as parental psychological distress, parenting behaviors, and parental investments (Conger & Donnellan, 2007; McLoyd, 2011), with some interest in school and classroom characteristics (Milkie & Warner, 2011). Broadening these foci would encourage a more complete conceptualization of life course variation in the proximate experiences that account for the effects of economic deprivation.

More generally, basic questions about the role of economic resources in mental health disparities across the life course have not yet been asked and/or answered (George, 2005). Developmental researchers have investigated whether there are "sensitive" periods for academic outcomes (Duncan, Yeung, Brooks-Gunn, & Smith, 1998) and how developmental risks and mental health outcomes might interact to produce negative developmental "cascades" (Masten et al., 2005). These ideas are only rarely incorporated into sociological research on stratification and mental health (see Martin et al., 2010 and Wickrama, Conger, & Abraham, 2005 for exceptions). Mental health researchers also have not taken full advantage of the conceptual models of cumulative advantage and cumulative disadvantage that have been offered to explain social class disparities in physical health (see Hatch, 2005 for a review). These models integrate insights from multiple disciplines to understand the complex, reciprocal connections among persistent vulnerabilities, age-specific risks, and social disadvantage in the production of health disparities. They are a useful starting point for the development of comparable models tailored to mental health outcomes.

Social Capital

Resources people can access through their social connections are a second fundamental determinant of life conditions. For purposes of this chapter, I use the concept of social capital to represent these resources. As defined by Parcel, Dufur, and Cornell Zito (2010) (who borrowed from Coleman's [1988] original definition), social capital refers to "resources that inhere in the relationships between and among actors that facilitate a range of social outcomes" (p. 830). This broad definition encompasses the concepts of social integration and social support that have long histories in mental health research (see Chap. 17). Although some specificity is sacrificed by glossing over distinctions among these concepts (Hartwell & Benson, 2007), doing so allows me to focus on the general properties of social connections that link stratification to mental health.

Social capital can be conceptualized within different domains of social interaction. In the context of the family, social capital refers to the bonds between parents and children that promote child socialization, including parental involvement, parental support, and parental monitoring of child behavior (Parcel et al., 2010). In the context of schools, social capital refers to relationships with teachers and school-based community connections. Although less often discussed, social capital at work could be conceptualized analogously as relationships with supervisors and employment-based social relationships. Social capital also may reside in neighborhood connections, as represented in concepts such as collective efficacy and community integration (Sampson & Graif, 2009). Some forms of social capital strengthen bonds within social institutions ("bonding" social capital; e.g., parent–child relations) whereas others bridge social institutions ("bridging" social capital; e.g., parent-teacher relations). Social capital allows for the sharing of material resources, as well as the sharing of information, the development of relationships involving obligation and reciprocation, and the cultivation of effective norms and sanctions (Coleman, 1988).

Research clearly demonstrates the mental health benefits of social capital as well as the potential of social resources in one interactional domain to compensate for the absence of social resources in another (Call & Mortimer, 2001). For instance, Parcel and Dufur (2001) report that family and school social capital both influence children's mental health, and that the negative effects of low school social capital can be offset by high parental monitoring. Among adults, social integration and the perception of social support enhance mental health and, in the case of the latter, buffer the effects of stressors (see Chap. 17).

There are good reasons to believe that social disadvantage is associated with the nature and quality of social connections. People's social networks tend to be populated by similar others (McPherson, Smith-Lovin, & Cook, 2001), which implies that people who are socially disadvantaged are members of resource-poor collectivities. Social disadvantage also is associated with community characteristics, such as social disorder, that impede the construction of mutually supportive social networks (Massey & Denton, 1993; Wilson, 1991; although see Kim, 2010). Within families, social disadvantage diminishes the quality of intimate relations and heightens tensions (Conger et al., 2010).

Evidence for the mediating role of social capital is weak, especially in adult populations. Turner and Marino (1994) reported that perceived social support was unable to explain the association of socioeconomic status with depression; findings from studies that have used more comprehensive measures of bonding social capital are similar (Ensminger & Juon, 2001; Ettner & Grzywacz, 2003). Observed patterns of social support by gender and race also do not conform to patterns of social disadvantage. Women report receiving more rather than less social support than men (Turner & Marino, 1994) and ethnic minority groups maintain stronger and more supportive family and friendship ties than Whites (Burton et al., 1995). These studies suggest that the types of bonding social capital that are most often investigated in studies of mental health do not vary in predictable ways with social disadvantage.

In contrast, studies of children frequently find that family and school social capital importantly contribute to explaining social class disparities in mental health (Vandewater & Lansford, 2005). The apparent greater relevance of social capital for explaining children's mental health may reflect the different types of measures used in studies of children and adults. Studies of children typically include measures of bridging as well as bonding forms of social capital—for example, parental engagement in children's schools, parental monitoring. Although less often studied, bridging capital may affect mental health through its association with the structure and content of the institutional environments (e.g., workplace, school) to which people have access. Moreover, bridging forms of social capital may be more closely tied to social disadvantage than are bonding forms of social capital—especially for children, whose access to bridging capital depends more on parental investments than on their own actions. (See Conger et al., 2010 for a review.)

Research has not yet investigated systematically how the costs and benefits of bridging and bonding social capital vary with social disadvantage (Umberson & Montez, 2010). Evidence that social support buffers the association of stressors with mental health (see Chap. 17) would lead us to expect bonding forms of social capital to buffer the association of social disadvantage. However, the social relationships that generate social capital may be perceived as stressful rather than as supportive by members of disadvantaged groups because they carry expectations for reciprocity that are difficult to meet (Henley, Danziger, & Offer, 2005). Race differences in the effects of bridging forms of social capital on academic achievement differ across indicators (Kao & Rutherford, 2007) suggesting highly specific patterns of association.

Because of these complexities, social capital may prove more useful for explaining variation within disadvantaged groups than between advantaged and disadvantaged groups (Scheffler, Brown, & Rice, 2007). For example, Cairney, Boyle, Offord, and Racine (2003) found that lesser access to social support explained why single mothers had worse mental health than married mothers. More generally, supportive relations seem to be especially important to understanding variation in the mental health of low-income women (Broussard, 2010). These studies reinforce the idea that the role of social capital in the association of stratification with mental health is highly contingent, varying with the dimension of stratification and the type of social capital.

Power and Authority

People who occupy lower positions in stratification hierarchies have fewer economic and social resources, in large part, because they have less power to control the conditions of their daily lives and to influence the actions of others. Objective conditions of power and powerlessness shape subjective beliefs about one's efficacy in the social world. Powerlessness is a major component of alienation (Seeman, 1959), a concept with roots in Marx's (1844/1964) writings on alienated labor. It is demoralizing in and of itself, and it diminishes the will and ability to cope effectively with life challenges (Mirowsky & Ross, 1986; Wheaton, 1983).

Whether operationalized as mastery, locus of control, learned helplessness, or self-efficacy, personal control is positively associated with mental health (Kiecolt, Hughes, & Keith, 2009; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Wheaton, 1980; see Chap. 19). In addition, people who occupy higher positions in stratification hierarchies have higher average levels of perceived control (Pearlin et al., 1981; Ross & Mirowsky, 1992) and perceived control contributes to explaining differences in mental health by social class, gender, and race/ethnicity (Turner, Lloyd, & Roszell, 1999; Turner, Taylor, & Van Gundy, 2004). Thus, perceived control is an important explanation for mental health disparities.

Perceived control is rooted in objective conditions of powerlessness and dependency that vary across stratification hierarchies. As stress research attests, people who are in socially disadvantaged positions are exposed to adversities that diminish control. High status also carries opportunities and positive life experiences that enhance sense of control through "social conditioning" (Weeden & Grusky, 2005) and learning generalization (Kohn & Schooler, 1983). For example, education nurtures control by exposing youth to progressively more challenging tasks that can be mastered (Mirowsky & Ross, 2007). People with higher levels of education also tend to hold jobs that involve schedule control, interesting work, and high pay, all of which contribute to perceived control (Schieman & Plickert, 2008).

The general association between social disadvantage and perceived control takes specific form in research on job conditions and mental health (see Chap. 21). In their classic study of work and personality, Kohn and Schooler (1983) proposed that occupational conditions connect broad patterns of occupational stratification to individual attitudes and well-being. Specifically, they argued that low prestige occupations offer fewer opportunities for self-directed activities which, in turn, increase distress and alienation. Subsequent studies confirmed the importance of control, authority, and autonomy in the workplace for the health, well-being, and self-esteem of workers (Karasek & Theorell, 1990; Link, Lennon, & Dohrenwend, 1993) and for the mental health of their children (Rogers, Parcel, & Menaghan, 1991).

These results notwithstanding, the power and authority that come with prestigious jobs do not have uniformly positive associations with mental health (Marchand, Demers, & Durand, 2005). Jobs that involve authority bring higher earnings, more autonomy, and less routine work, but they also involve more interpersonal conflict and work-to-home conflict (Schieman & Reid, 2009; Schieman et al., 2006). These forms of conflict may be especially distressing to women, who experience more tension between their roles as workers and as parents and spouses than do men (Simon, 1995). The complex meanings of work may explain why, despite strong evidence that women have less power and authority in the workplace than men (Elliott & Smith, 2004), job conditions do not account for gender differences in the prevalence of distress (Roxburgh, 1996).

Recent research on gender has shifted from using women's lesser power and authority to explain their higher levels of distress (Gove & Tudor, 1973) to using these concepts to explain gender differences in the manifestations of distress. Simon and Nath (2004) draw on Kemper's (1978) theory of emotion to hypothesize that men's high status and power are associated with positive emotions and women's low status and power are associated with negative emotions. Consistent with that hypothesis, they found that men reported more positive emotions (e.g., calm, excited) than women whereas women reported more negative emotions (e.g., sad, anxious) than men. Moreover, although men and women reported equal frequencies of experiencing anger, women's anger was more intense.

Rosenfield and colleagues provide an alternative account of how gender differences in power and authority produce gender differences in the manifestations of distress. Drawing on symbolic interactionist theories of the self, they attribute the gender difference in mental health to gendered life experiences that encourage boys and girls to develop different assumptions about the relative importance of self and others (Rosenfield, Vertefuille, & McAlpine, 2000). Specifically, girls' experiences of powerlessness together with gendered expectations for autonomy, worth, and confidence promote low self-salience—an emphasis on the collective over the individual—which leads to internalizing problems. In contrast, boys' experiences of greater power promote high self-salience—a world view that privileges the self over others—which is associated with externalizing problems. Consistent with their expectations, Rosenfield and her colleagues found that gendered expectations are associated with self-salience, adolescent girls report lower self-salience than boys, and self-salience importantly contributes to explaining gender differences in internalizing and externalizing problems (Rosenfield, Lennon, & White, 2005). With Simon's research, Rosenfield's studies demonstrate that power can influence the manifestations, as well as the likelihood, of distress.

Civil Rights

In general terms, civil rights refer to legal rights that ensure equal citizenship (Altman, 2009). In liberal democracies, and in mental health research, civil rights are conceptualized with respect to discrimination. Although the term discrimination has various definitions, most refer to unfair treatment of members of disadvantaged groups that is intended to maintain the advantages of dominant groups (Krieger, 2000). Discrimination can be conceptualized at multiple levels of analysis—with reference to institutionalized practices of discrimination, personal experiences of discrimination, and internalized racism (Williams & Williams-Morris, 2000). In its diverse forms, discrimination produces a hierarchy of social disadvantage by constraining opportunity structures and excluding members of subordinate groups from full societal benefits.

The effects of institutionalized discrimination on mental health are usually represented by group differences in economic deprivation, residential segregation, job conditions, and the like. Because I cover those components of stratification in other sections, here I emphasize research on personal experiences of discrimination.

Personal experiences of discrimination can be acute (e.g., losing one's job because of one's race) or chronic (e.g., repeatedly being treated less courteously by others). Their effects may cumulate over the life course, and may vary depending on the specific social context in which discrimination is experienced (Williams, Neighbors, & Jackson, 2003). Regardless of how they are measured, experiences of race and gender discrimination produce variation in mental health among members of racial/ethnic minority groups (Finch, Kolody, & Vega, 2000; Gee, Spencer, Chen, Yip, & Takeuchi, 2007; Keith, Lincoln, Taylor, & Jackson, 2010; see Williams et al., 2003 for a review). Discrimination also has been linked to differences in mental health between lesbian, gay, and bisexual populations as compared to heterosexuals, and to variation in mental health problems among sexual minorities (Meyer, 2003). The effect of discrimination appears to be attributable, at least in part, to its association with diminished personal control (Keith et al., 2010).

Whereas the concept of discrimination usually is reserved for unfair treatment directed toward women, persons of color, and sexual minorities, the concept of stigma is invoked to understand the experiences of other groups that are viewed as having socially undesirable traits (Stuber, Meyer, & Link, 2008; see Chap. 25). In stratification research, stigma applies most directly to welfare recipients (Stuber & Schlesinger, 2006) and has been shown to have adverse psychological consequences (Belle, 1990). For example, women who receive Aid to Families with Dependent Children (AFDC) view receiving public assistance as unpleasant and embarrassing (Goodban, 1985). They also report feeling ashamed and depressed by their interactions with social services organizations (Popkin, 1990).[3]

Despite the consistency of evidence for the negative effects of discrimination and stigma on mental health, these experiences do not appear to explain mental health disparities based on race/ethnicity, gender, or social class (Kessler, Mickelson, & Williams, 1999; Williams, Yu, Jackson, & Anderson, 1997). In part, this result occurs because racial/ethnic minorities and women do not always report more mental health problems and more experiences of discrimination than Whites and men (Kessler et al., 1999). Yet, even when they do, controlling for discrimination does not explain mental health disparities (Williams et al., 1997). This failure is inconsistent with evidence of the pervasive discrimination that members of socially disadvantaged groups experience (Benokraitis & Feagin, 1986; Feagin, 1991). It is possible that extant measures of discrimination do not capture the most relevant aspects of discrimination. Racial minorities and women may experience subtle but persistent forms of

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[3] In mental health research, stigma also is used to understand the social disadvantages associated with having received mental health treatment and the implications for recovery and relapse (see Chap. 25).

social exclusion that are not easily captured by survey items. Also, standard measures typically do not collect information about the frequency or duration of discriminatory experiences (Williams & Mohammed, 2008) or about stigma associated with receiving means-tested forms of public assistance (Stuber & Schlesinger, 2006).

More generally, perceived discrimination may be only loosely related to objective discrimination. Targets of discrimination may not recognize unfair treatment as such, and people who were not discriminated against may believe they were unfairly treated (Major et al., 2002; Stangor et al., 2003). Experimental studies, for example, find that members of lower status groups are less likely to perceive discrimination when they accept an ideology that legitimates the status quo (for instance, an ideology that attributes success to individual effort; Major et al., 2002). Perceptions of discrimination also are influenced by racial beliefs and racial identity. African Americans who believe that other groups hold negative attitudes toward African Americans and whose racial identities are central to their sense of self report higher levels of perceived discrimination than other African Americans (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006).

The negative effects of discrimination on mental health are buffered by these same factors. The effects of discrimination on mental health are dampened by the belief that the public holds one's group in low regard (Sellers et al., 2006) and by having a strong racial identity (Mossakowski, 2003; Sellers et al., 2003; although see Yip, Gee, & Takeuchi, 2008). Culturally normative coping strategies, such as forbearance, also diminish the negative effects of discrimination, although their effectiveness varies across social contexts (Noh, Beiser, Kaspar, Hou, & Rummens, 1999; Noh & Kaspar, 2003). Thus, discrimination and stigma may affect mental health only in specific subgroups of disadvantaged populations (Meyer, Schwartz, & Frost, 2008).

In addition, a more appropriate outcome than occurrence of disorder may be its course (Smedley, Stith, & Nelson, 2002) given studies that have not found higher prevalence among racial/ethnic minorities, but rather more persistent, severe, and disabling mental health problems (Williams et al., 2007). With regard to course, diagnostic practices that rely on stereotypes of those in disadvantaged statuses may be associated with the persistence of mental health problems in these groups. For example, women are more likely to be diagnosed with depression, and men with adjustment disorder (Loring & Powell, 1988), whereas Blacks are over-diagnosed with schizophrenia and under-diagnosed with affective disorders relative to Whites, even when standardized diagnostic criteria are applied (Neighbors, Trierweiler, Ford, & Muroff, 2003). Cultural barriers, especially as reflected in language, also contribute to lower rates of mental health care utilization by Hispanic Americans (Fiscella, Franks, Doescher, & Saver, 2002; for a review, see Brach & Fraserirector, 2000). To the extent that appropriate treatment aids recovery and prevents relapse and recurrence, these factors may contribute to a protracted or recurrent course, a possibility that is not captured in studies that examine only the occurrence of disorder.

Stratification, Life Conditions, and Mental Health

In summary, the positions that people occupy in stratification hierarchies are strongly associated with the nature and quality of proximate life conditions. In this section, I conceptualized these experiences with reference to four generic resources that represent major components of stratification systems: economic resources, social capital, power and authority, and civil rights. Given the strong associations of those resources with mental health, they are likely candidates to explain mental health disparities. It is somewhat disconcerting, then, that empirical results are so mixed. Results are strongest for social class as an index of stratification, and for economic resources and job conditions as mediators—the characteristics that conform most closely to the traditional concerns of stratification researchers. Results are weaker for race/ethnicity and gender as dimensions of stratification, and for social capital and discrimination as explanations. The patterns for race/ethnicity and gender may reflect that, in addition to defining positions in stratification hierarchies, these characteristics define membership in social categories that have consequential meanings. In the next section, I consider these meanings in the context of social evaluation processes.

Social Evaluation Processes

Social stratification involves the differential distribution of status and prestige—honorific resources that confer esteem and worth. Social evaluation theories share an interest in the bases for and outcomes of these resources. They advance two general claims: (1) that people learn about themselves by comparing themselves to others, and (2) that social comparisons lead to positive, neutral, or negative self-evaluations relative to the standards employed for comparison (Pettigrew, 1967). Social comparisons can be evaluative or normative (Kelley, 1952).[4] Evaluative social comparisons provide information about relative standing and equity. Normative social comparisons provide information about the appropriateness of one's emotions, attitudes, and behaviors.

Most research on mental health focuses on evaluative social comparisons. Three main classes of theories offer insight into the determinants and consequences of these comparisons: theories of social comparisons and reference groups, equity theory, and status inconsistency theory. Although the theories often arrive at similar predictions regarding which individuals or groups will experience negative mental health outcomes, each offers unique insight into the processes through which social comparisons influence well-being and each has generated a distinct line of research. Research based on these theories challenges the simple assumption that people who are socially disadvantaged evaluate themselves and their life conditions unfavorably.

Social Comparisons and Reference Groups

The concepts of social comparisons and reference groups are most often associated with Hyman (1942), Festinger (1954), and Merton (1957). Festinger (1954) asserted that, when objective standards are unavailable, people use social comparisons with similar others to evaluate their abilities, opinions, and emotions. Hyman (1942) and Merton (1957) introduced the concept of a reference group to define these comparative others. Because of the deprivations and discrimination they encounter, we might reasonably expect people in socially disadvantaged positions to perceive themselves as disadvantaged relative to others. However, people are flexible and motivated in their choices of comparative standards so as to preserve a positive self-evaluation (Festinger, 1954; Kruglanski & Mayseless, 1990; although see Taylor, Buunk, & Aspinwall, 1990). Moreover, when upward comparisons cannot be avoided, people cope in ways that severely attenuate the link between negative comparisons and psychological distress (Diener & Fujita, 1997).

The claim that negative social comparisons do not uniformly produce distress takes a more specific form in research on self-esteem, relative deprivation, and subjective social status. Each line of research provides evidence of the contingent nature of the associations between social disadvantage and negative social comparisons, and between negative social comparisons and mental health.

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[4] Kelley used the terms "comparative" and "normative" to distinguish the two functions of reference groups. I opt for "evaluative" to avoid confusion in multiple uses of the terms "comparative" and "comparison."

Social Comparisons and Self-Esteem

Rosenberg and Pearlin (1978) offered a cogent statement of the relevance of social comparisons for self-esteem. They argued that social disadvantage becomes relevant for self-esteem to the extent that members of disadvantaged groups internalize the negative appraisals of advantaged groups (reflected appraisals), see themselves as having been less successful than those groups (negative social comparisons), and attribute their lack of success to their own actions (self-attribution) (see also Rosenberg, 1981).

Consistent with the focus of Rosenberg and Pearlin's (1978) work, most empirical studies of social comparisons and mental health have used self-esteem as the outcome. In their own study, social class, as measured by occupational prestige, was unrelated to self-esteem for young children (ages 8–11), was only weakly related to self-esteem for older adolescents, and was strongly related to self-esteem for adults. The greater relevance of social class to the self-esteem of adults has been confirmed in other studies, with more recent studies finding that the association between social class and self-esteem begins to decline after age 60 (Twenge & Campbell, 2002). This association has increased in recent birth cohorts for women and is stronger for Asians than for Whites and Blacks, and weakest for Hispanics. These patterns are consistent with the idea that social class matters most to self-esteem when it is a salient indicator of success (Twenge & Campbell, 2002).

In contrast to social class, race/ethnic differences in self-esteem are not consistent with the hypothesis that disadvantaged groups experience lower self-esteem. In fact, African Americans report higher self-esteem than Whites who, in turn, report higher self-esteem than Latinos and Asian Americans (Gray-Little & Hafdahl, 2000; Twenge & Crocker, 2002). Several explanations have been proposed for the relatively high self-esteem observed among African Americans: that members of disadvantaged groups tend to compare themselves to similarly disadvantaged others (Singer, 1981), that they attribute failures or rejection to prejudice (Ogbu, 1986), that they devalue domains in which their group shows relatively poor achievement (McCarthy & Yancey, 1971; Rosenberg & Simmons, 1971), and that they hold positive group identities that protect self-esteem (see Twenge & Crocker, 2002 for a review). However, Latinos and Asian Americans report low self-esteem relative to Whites and Blacks, despite presumably having access to the same cognitive coping strategies (Pearlin & Schooler, 1978). Twenge and Crocker (2002) explain this pattern with reference to cultural values. When individualism is prized (such as in White and Black cultures), the self is seen as independent of relationships and people are motivated to enhance self-esteem by standing out from others. In contrast, when collectivism is valued (such as in Latino and Asian cultures), the self is seen as interdependent and people are encouraged to practice self-criticism as a means of maintaining harmony in relationships. If their explanation withstands empirical scrutiny, it suggests that the association between social disadvantage and negative self-evaluations depends on cultural values, as well as on the reference groups people choose and the attributions they make for their disadvantage.

Relative Deprivation

Research on relative deprivation provides further evidence for the contingent nature of social evaluation processes. Relative deprivation refers to a perceived discrepancy between what one anticipates and what one attains (Stouffer, 1949). In essence, it is the outcome of a social comparison that leads to the conclusion that the person is not receiving valued goods to which she or he feels entitled. The comparisons that prompt feelings of relative deprivation can be personal or group based; we can feel deprived relative to other specific people or we can feel that the groups to which we belong are deprived relative to other groups. Group-based relative deprivation has been linked to collective action

(Grant & Brown, 1995), whereas personal relative deprivation has been linked to poor mental health (Crosby, 1976). In particular, relative deprivation is thought to produce negative emotions such as anger, frustration, hostility, and fear.

Direct evidence for the association of relative deprivation with negative emotions and mental health is scarce. Experimental studies have successfully produced negative emotions in response to manipulated levels of relative deprivation (Bernstein & Crosby, 1980). However, the observed effects are highly contingent on whether people blame themselves or others for their deprived state, how much they value the outcomes under consideration, and how entitled they feel—contingencies that parallel those found in research on social comparisons and self-esteem (see Major & Schmader, 2001). Moreover, the transient emotions that are observed in experimental settings are not necessarily analogous to the outcomes of interest in mental health research.

Indirect evidence is more plentiful but also more mixed. This evidence derives from comparisons of the association of individual-level social disadvantage with mental health across countries that differ with respect to inequality. In an early influential study, Easterlin (1974) found that income was positively associated with happiness within countries, but that average happiness levels were not higher in wealthier countries as compared to poorer countries and did not increase within countries during periods of economic growth. He concluded that relative income rather than absolute income is a stronger determinant of happiness. A more recent line of research shifts focus to the association of income inequality with mental health. Wilkinson and Pickett (2007) reported a significant positive correlation between income inequality and the prevalence of mental illness in 12 countries, but found no such correlation for the 50 US states (see also Pickett, James, & Wilkinson, 2006). Because their country-level analysis did not control for potential confounders, however, their conclusion about the effect of relative deprivation on mental health remains tentative. Ladin, Daniels, and Kawachi (2009) extended this strategy in a multilevel analysis of the associations of individual- and country-level social class with late-life depression. Consistent with relative deprivation, they found that country-level income inequality was significantly associated with country-level rates of depression in bivariate analyses, and that low education was more strongly associated with the individual risk of depression in less egalitarian countries. In an apparently contradictory pattern, Hopcroft and Burr (2007) observed that women's relative disadvantage with respect to depression was higher in countries with high levels of gender equity (see also Culbertson, 1997). They posited that women in countries with high levels of gender equity experience a greater discrepancy between perceived societal opportunities and their personal circumstances.

Hopcroft and Burr's (2007) study highlights a key limitation in large-scale studies of relative deprivation: they do not provide direct evidence that people in different social contexts perceive themselves as deprived relative to others and that these perceptions are responsible for the observed patterns of mental health. Future progress will require more direct measurement of these perceptions. In addition, inasmuch as theories of relative deprivation predict specific emotional responses (i.e., anger, frustration, hostility, fear), studies that differentiate among mental health outcomes will prove especially valuable.

Subjective Social Status

Research on subjective social status extends research on relative deprivation by investigating the association between objective and subjective social statuses. This research follows on Centers' (1949) early investigation into the determinants of subjective social class which revealed that objective and subjective social statuses do not necessarily correspond. People who are socially disadvantaged do not always think of themselves as disadvantaged and people who are socially advantaged do not always think of themselves as advantaged. Indeed, most Americans rank themselves as "middle class" or "working class" despite a much more differentiated objective class distribution (Hout, 2008). It is reasonable to expect, then, that subjective and objective social statuses have independent associations with mental health.

Most studies measure subjective social status by asking respondents whether they are better off or worse off than a given comparative standard ("others in American society," "your neighbors"; Wolff, Subramanian, Acevedo-Garcia, Weber, & Kawachi, 2010) or by asking respondents to place themselves on a ladder to indicate their position relative to others (Adler, Epel, Castellazzo, & Ickovics, 2000). Regardless of measurement approach, subjective social status is consistently associated with psychological distress and depressive symptoms independent of objective status indicators (Demakakos, Nazroo, Breeze, & Marmot, 2008; Franzini & Fernandez-Esquer, 2006). Importantly, this finding does not appear to be a function of the influence of psychological characteristics on subjective status ratings (Singh-Manoux, Adler, & Marmot, 2003).

Although research is limited, it suggests that subjective social status is a product of social comparison processes and a determinant of relative deprivation. Subjective social status is a function of people's beliefs about their current and future prospects and their experiences of discrimination and victimization as well as their current socioeconomic position (Singh-Manoux et al., 2003; see Franzini & Fernandez-Esquer, 2006 for a review). Moreover, the determinants of subjective social status vary by race/ethnicity and acculturation status. Objective and subjective social status correspond less closely for African Americans than for Whites and Latinos, and education contributes less to subjective social status for Latinos (Ostrove, Adler, Kuppermann, & Washington, 2000). The choice of reference groups also differs depending on levels of acculturation (Franzini & Fernandez-Esquer, 2006). For instance, foreign-born, Spanish-speaking Mexicans were most likely to choose Mexicans in the USA as their reference group, whereas US born, English-speaking Mexicans were more likely to choose people in the USA (including Anglos). In short, subjective social status is a social product that depends on the choice of reference group and attributions for disadvantage as well as perceived life chances.

The association of subjective social status with mental health usually is explained with reference to the concepts of relative deprivation and/or hierarchy stress. These explanations emphasize negative affect and stress responses as mediators of the association, respectively. Empirical evidence for both explanations is supportive, if limited. Subjective social status is associated with negative affect (Operario, Adler, & Williams, 2004) and with stress-related indicators of physiological functioning (Adler et al., 2000). Assuming that these findings withstand further scrutiny, subjective social status holds promise as a link between evaluative social comparison processes and experiences of relative deprivation.

Taken together, research on social comparisons, relative deprivation, and subjective social status highlight the importance of discrepancies between objective life conditions and perceptions of those conditions. People's judgments of their relative social standing and worth are shaped by self-enhancement motives, their attributions for their own circumstances, and the degree to which they perceive inequalities as legitimate. Much of the evidence derives from psychological experimental research, which privileges the role of cognition and tells us little about the social contexts that influence motives, attributions, and perceptions of legitimacy. Sociologists are uniquely positioned to contribute to future research on these topics and, thereby, to complete the links between stratification hierarchies, social comparison processes, subjective social status, and relative deprivation—and their mental health effects.

Equity and Justice

Theories of equity and justice emphasize the psychological outcomes of comparing one's own inputs and outcomes to those of others. In a departure from other social evaluation theories, equity theory predicts that people will experience distress upon perceiving an inequity to themselves *or* others, that is, from either under-benefitting or over-benefitting (Homans, 1961/1974; Walster, Walster, &

Berscheid, 1978). According to equity theory, under-benefitting produces anger or resentment while over-benefitting produces guilt (Homans, 1961/1974; Stets, 2003). Experimental studies generally support these predictions, although evidence is stronger for the effects of under-benefitting than over-benefitting (Austin & Walster, 1974; Hegtvedt, 1990).

The same holds true in survey studies of marital equity. Husbands and wives who perceive their relationships as equitable experience fewer depressive symptoms than those who perceive themselves as under-benefitting or over-benefitting (DeMaris, Mahoney, & Pargament, 2010; Lennon & Rosenfield, 1994; Longmore & DeMaris, 1997; Mirowsky, 1985), although some studies report significant effects only for under-benefitting (Sprecher, 2001; Voydanoff & Donnelly, 1999). The association of marital equity with mental health varies with personal and social characteristics. It is stronger for women than for men (Glass & Fujimoto, 1994), for women who affirm more egalitarian gender ideologies (Mirowsky, 1985; Voydanoff & Donnelly, 1999), for people who believe that marriage is a sacrament (DeMaris et al., 2010), and for people with lower self-esteem (Longmore & DeMaris, 1997). The association also differs depending on the domain of life being considered with women being more sensitive to inequities in housework and men being more sensitive to inequities involving paid work (Glass & Fujimoto, 1994; Sprecher, 2001).

Previous survey studies of marital equity rely almost exclusively on depressive symptoms to measure distress, but equity theory implicates a much broader range of emotions (see also Hochschild, 1989). In a recent analysis, Lively, Steelman, and Powell (2010) extended research on marital equity and mental health to other outcomes by drawing on theories of emotions. Specifically, based on Kemper's (1978) work, Lively et al. (2010) predicted that spouses who over-benefit in the marriage will experience sadness and guilt whereas those who under-benefit will experience suspicion, anger, and fear. Moreover, based on affect control theory (Heise, 1979), they predicted that the effects of over-benefiting would be stronger for women whereas the effects of under-benefiting would be stronger for men as these states are inconsistent with women's and men's identities. The author's results were consistent with their predictions, and demonstrate the value of stronger integration between theories of emotions and of mental health (Simon, 2007).

Research on perceived marital equity and mental health treats equity as a starting point for the analysis. However, much like subjective social status, equity is the outcome of social comparison processes that have emotional consequences. Perceptions of marital equity are influenced by the comparative referents people use, their affective interpretations of contributions to household labor, and the justifications they give for the actual division of labor (Coltrane, 2000). Couples can also change their perceptions of equity by altering their identities (e.g., a husband defines himself as "co-provider" and "co-parent" rather than as "breadwinner") or the meanings of their activities (e.g., a husband defines his wife's in-home day care business as "being at home"; Kroska, 1997). The processes that produce perceptions of marital equity introduce potential contingencies that have received limited research attention (Kroska, 2009).

Status Inconsistency

Weber (1922/1958) argued that stratification is multidimensional—involving economic resources, power, and status—and, by implication, that people can hold inconsistent positions across those hierarchies. Although theory suggests that status inconsistency is consequential for mental health, there is only limited recent research on this topic. Parks (1928) theorized that people who hold inconsistent statuses, for example, economically successful African Americans, live in multiple worlds in all of which they are strangers. The moral and spiritual confusion that result generate restlessness, malaise, and intensified self-consciousness. Hughes (1945), Lenski (1954), and Jackson (1962) locate this "moral and spiritual confusion" in the conflicting behavioral expectations that inhere in status inconsistency (a normative comparison argument), whereas House and Harkins (1975) argue that status inconsistency results in feelings of injustice that breed frustration (an evaluative comparison argument).

Although early empirical studies found significant effects of status inconsistency on mental health, the effects were neither as pervasive nor as straightforward as the theory would suggest (Hornung, 1977; House & Harkins, 1975). Methodological critiques of status inconsistency research fueled several studies that did not find any effects of status inconsistency on mental health (Horan & Gray, 1974; Jackson & Curtis, 1972). However, early research relied on a narrow definition of status inconsistency that may not capture the most important components of the concept.

In an influential study, Dressler (1988) expanded the concept in his analysis of the association of depression with three forms of status inconsistency—objective inconsistency (discrepancies between income and occupation), lifestyle incongruity (discrepancies between objective status and lifestyle choices, such as reading magazines and other “cosmopolitan” behaviors), and what he called goal-striving stress (discrepancies between education and occupation). Using data from a small southern Black community, he found that (independent of financial stress) only lifestyle incongruity was related to depression. Dressler speculated that lifestyle incongruity diminishes mental health because it leads to negative social comparisons and self-doubt, and because it creates uncertainty and stress in social interactions where status claims are important. His results imply that objective status inconsistency may be much less important for mental health than incongruity between one’s actual status and status aspirations.

Research that engages Parker and Kleiner’s (1966) definition of goal-striving stress extends status inconsistency research in an especially promising direction. They defined goal-striving stress as the distance between aspiration and achievement as weighted by the perceived likelihood of success and the anticipated level of disappointment in the case of failure. Using a measure consistent with this definition, Sellers and Neighbors (2008) found that goal-striving stress was significantly associated with lower levels of happiness, life satisfaction, and self-esteem, and with higher levels of psychological distress among Blacks surveyed in 1987–1988. Although levels of goal-striving stress were higher among poor as compared to nonpoor respondents, the associations of goal-striving stress with happiness and life satisfaction were stronger for nonpoor respondents. The authors suggest that goal-striving stress is more distressing the closer one is to achieving the goal.

Given the strong theoretical reasons for anticipating that status inconsistency is consequential for mental health, renewed empirical attention to this area is warranted.

Stratification, Social Evaluations, and Mental Health

Research on social evaluation processes adds depth to our understanding of the association between stratification and mental health by revealing the many contingencies that mediate between objective life conditions and subjective perceptions. While certain forms of resource deprivation cannot be managed cognitively, others can. People are motivated to protect and enhance their sense of self-worth, and they are motivated to see the world as a just and reasonable place (Major & Schmader, 2001). These basic motivations moderate the associations of objective deprivations with subjective deprivations and of subjective deprivations with mental health.[5]

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[5] Social evaluation processes also may help explain why race has stronger and more consistent associations with physical health outcomes than with mental health outcomes. Socially disadvantaged racial groups do not consistently report worse mental health than socially advantaged racial groups but they do report worse physical health (Williams & Collins, 1995). The cognitive processes described by social evaluation theories may be more effective for preserving mental health than physical health inasmuch as preserving mental health can be considered a self-protective motive.

Summary and Future Recommendations

In the years since the first *Handbook of the Sociology of Mental Health* was published, literally hundreds of articles have been published that analyze some aspect of stratification as it relates to mental health. Evidence from life course studies has deepened and, in some cases, challenged our understanding of how social disadvantages produce mental health disadvantages. Evidence from research on emotions has encouraged a broadening in the definition of mental health along with greater attention to behavioral and emotional norms in the social distribution of mental health. These welcome developments provide a foundation for future research into life course patterns of cumulative advantage and disadvantage, and into the social distribution of emotional well-being.

As encouraging as these developments are, their potential impact has been constrained by over-reliance upon traditional conceptual models in research on stratification and mental health. Whereas research on stratification and physical health is now driven by an ever-expanding set of conceptual models (Anderson, 1998; Krieger, 2001), parallel research on mental health continues to draw on a circumscribed set of concepts contained within the stress process model. The stress process model is a rich and flexible conceptual tool that has motivated sociological research on mental health for decades and that resonates with the life course perspective (Pearlin, Schieman, Fazio, & Meersman, 2005). However, this model alone provides an incomplete understanding of the full spectrum of factors relevant to the association between stratification and mental health. Not all proximate environmental experiences are best conceptualized as stressors (e.g., job autonomy) and not all social evaluation processes are best conceptualized as coping strategies. Also needed are other conceptual tools for understanding how people ascribe meaning to the objective conditions of their lives—a critical link in the chain between social stratification and mental health. Although the range of social psychological theories that are represented in research on stratification and mental health has broadened in the past 15 years, these theories have not yet been integrated into a coherent framework.

More generally, research on stratification and mental health has not taken full advantage of theoretical advances in social epidemiology. The vibrant discussions about how best to conceptualize and operationalize social disadvantage (Krieger, Williams, & Moss, 1997; Muntaner, Eaton, & Diala, 2000) and about the role of material versus psychosocial resources in health disparities (Lynch, Smith, Kaplan, & House, 2000; Marmot & Wilkinson, 2001) are rarely, if ever, mentioned in mental health research. The models of cumulative advantage and disadvantage that drive much contemporary research on health disparities are virtually invisible (Thoits, 2010). It may not be possible for mental health researchers to apply these models directly—mental health and physical health are not necessarily produced through the same processes and cannot necessarily be understood with reference to the same concepts. However, those models could serve as the starting point for a potentially fruitful conversation about how mental health and physical health differ as outcomes that could, in turn, inform the development of analytic frameworks in both areas.

Any comprehensive conceptual framework for analyzing the association of stratification and mental health must meet several challenges. First, it must account for objective conditions of social disadvantage as well as the discrepancy between those conditions and how they are perceived. The differences in economic resources, social resources, power and authority, and civil rights that inhere in social stratification systems ensure that members of lower status groups will experience less favorable life conditions. The associations of these conditions with mental health, however, are contingent on how they are perceived. People's relative positions in social hierarchies involve interpretations of their own and others' life circumstances—interpretations that are shaped by the choice of reference group, ideologies, legitimacy beliefs, and social contexts.

Social evaluation theories offer one set of tools for understanding these contingencies, but there are other concepts from social psychology that may be equally or more useful, for example, identities, attributions, and values (Bierman, 2010). We can see the potential of these concepts in the scattered studies that apply them, such as Simon's (1997) research on the gendered meanings of work and family identities and research by Sellers and colleagues (2003, 2006) on racial beliefs, racial identities, and perceptions of discrimination. As of yet, however, these concepts have not been incorporated into a comprehensive framework with broad applicability.

A comprehensive framework for the analysis of social stratification and mental health must account not only for group differences in mental health but also for heterogeneity within groups (Schwartz & Meyer, 2010). Studies of group differences evaluate the extent to which observed differences can be explained by statistical controls for potential explanatory variables (e.g., whether controls for job conditions explain gender differences in mental health). Studies of heterogeneity within groups evaluate variation in mental health based on experiences or characteristics that distinguish members of a single group (e.g., whether job conditions are associated with mental health for women). While one would hope for consistency in the results of between-group and within-group studies, my review identified several instances in which the results of between-group and within-group studies are inconsistent. For example, job conditions do not explain the gender difference in depression although they are strong predictors of mental health for men and women. Similarly, perceived discrimination does not explain racial/ethnic differences in mental health although it is a strong predictor of mental health within racial and ethnic minority groups.

One way to reconcile these inconsistencies is with reference to heterogeneity within disadvantaged groups. Women are disadvantaged relative to men in the aggregate but not all women are disadvantaged relative to all men. Similarly, African Americans, Latinos, Asian Americans, and members of other racial and ethnic minority groups are disadvantaged relative to Whites, but not all members of racial and ethnic minority groups are disadvantaged relative to all Whites. Studies that evaluate the predictors of mental health within disadvantaged groups identify nexuses of disadvantage—specific combinations of statuses and experiences—that place people at risk of mental health problems. Further research along these lines would bring mental health researchers into conversation with feminist theories of "intersectionality" (Choo & Ferree, 2010; Collins, 2000). Intersectionality theories assert that different dimensions of stratification, such as social class, race, and gender, must be studied in relation to one another, i.e., that the various combinations of status characteristics have unique associations with life experiences. Although some research on stratification and mental health has taken an intersectional approach (e.g., research on the unique mental health challenges of low-income, minority, women), most studies treat the different dimensions of stratification as separable.

A comprehensive framework for the study of social stratification and mental health must also account for the life course dynamics of mental disorders. Despite years of research on the associations of social class, race, and gender with mental health, we know little about whether social disadvantage is most strongly associated with age at onset, duration of illness, or relapse or about how disadvantages at different ages affect the risk of mental health problems. Miech et al. (2005) report that education does not predict new onsets of disorder among adults. Other studies have found that childhood social class is more strongly associated with the risk of adult disorder than adult social class (Gilman, Kawachi, Fitzmaurice, & Buka, 2002; Power, Hertzman, Matthews, & Manor, 1997). These studies suggest that much of the "action" in the association of social class with mental health happens in childhood, inconsistent with the dominant focus of sociological research on adult samples.

Finally, a comprehensive framework for the study of social stratification and mental health must account for how historical and social contexts shape proximate experiences of stratification and perceptions of those experiences. Studies conducted in times of social change may prove especially informative. For instance, research in South Africa indicates that childhood adversities are especially important to race differences in mental health in that country because childhood there is so fraught with peril (Slopen et al., 2010). Another study from the same project finds parallels between the changing circumstances of minority groups (i.e., Africans, Coloreds, and Indians), their levels of mental health problems, and the proximate life experiences that account for mental health differentials (Jackson et al., 2010). Perceptions of proximate environmental experiences may also depend on the historical and social context. Divorce, a more common experience for children in lower-class families, has a different meaning now than it did 20 years ago, which may alter its association with mental health.

The construction of such a framework is a daunting challenge but a surmountable one. To succeed, mental health researchers will have to draw on the full set of conceptual tools that sociology has to offer regarding the conceptualization and operationalization of social stratification, as well as the full set of conceptual tools that social psychology has to offer regarding how people construct meaning in proximate environments. The potential rewards of success are great: stronger ties to mainstream sociology and to social psychology, and a better understanding of the conditions under which social disadvantages produce mental health disadvantages.

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Chapter 13

Race, Nativity, Ethnicity, and Cultural Influences in the Sociology of Mental Health

Tony N. Brown, Katharine M. Donato, Mary Therese Laske, and Ebony M. Duncan

Abbreviations

CPES	Collaborative Psychiatric Epidemiology Surveys
DIS	Diagnostic Interview Schedule
DSM	Diagnostic and Statistical Manual of Mental Disorders
ECA	Epidemiologic Catchment Area Study
NCS-R	National Comorbidity Study Replication
NESARC	National Epidemiologic Survey on Alcohol and Related Conditions
NIH	National Institutes of Health
NLAAS	National Latino and Asian American Survey
NSAL	National Survey of American Life

Sociocultural variation refers to differential lived experiences linked to race, nativity, ethnicity, and cultural influences. Despite efforts to respond to calls to investigate sociocultural variation with care, sociologists of mental health have not yet devoted sufficient attention to how it can complicate and clarify our understanding of mental health status. Richer understanding of mental health status in the United States, a nation that is becoming increasingly diverse (Day, 1996; Kim, 2011; Ortman & Guarneri, 2009), requires that scholars consider carefully the nature and consequences of sociocultural variation. For instance, race is an important predictor of exposure and vulnerability to stressful events, coping strategies, social support, and, in turn, mental health status (Gee, Delva, & Takeuchi, 2007; Kuo, 1995; Lawson, 1986; Meketon, 1983; Mossakowski, 2003; Noh, Kaspar, & Wickrama, 2007; Taylor & Turner, 2002; Yip, Gee, & Takeuchi, 2008). However, race grossly aggregates individuals, hiding variations in mental health status, and thus it must be deconstructed. If not, race will continue to mask and perhaps distort ethnic differences, nativity differences, and cultural influences. We believe it is time to move beyond an approach that categorizes, theorizes, or clinically treats members of racial groups—such as Hispanics or blacks—as homogeneous without

T.N. Brown (✉) • K.M. Donato • M.T. Laske • E.M. Duncan
Department of Sociology, Vanderbilt University, 2301 Vanderbilt Place,
VU Station B Box 351811, Nashville, TN 37235-1811, USA
e-mail: tony.n.brown@vanderbilt.edu

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recognizing specific ethnic variation within these groups, the meaning of nativity, and the influence of culture.

As has been pointed out before, research too often does little more than control for race, nativity, or ethnicity, ignoring the sociological significance of these constructs (e.g., treating these constructs as noise or moderating influences in multivariate statistical models; Comstock, Castillo, & Lindsay, 2004; Wilkinson & King, 1987; Williams, Lavizzo-Mourey, & Warren, 1994). Many researchers too readily rely on disclaimers about difficulties in sampling and studying discrete ethnic groups, randomly sampling immigrants, and accounting for cultural influences (for further discussion, see Jackson et al., 2004; López & Guarnaccia, 2000; Williams, Costa, & Leavell, 2010). For these and other reasons, prior studies that incorporate these constructs often produce ambiguous results concerning the impact of sociocultural variation on mental health status.

Our chapter highlights complexity that emerges when studying race, nativity, ethnicity, and cultural influences, specifically as these constructs relate to major themes and debates in the sociology of mental health literature. Rather than attempting to further detail what is currently known about prevalence rates of psychiatric disorders by race, nativity, and/or ethnicity (but see Alegría, Mulvaney-Day, Torres, et al., 2007; Alegría, Mulvaney-Day, Woo, et al., 2007; Alegría, Shrout, et al., 2007; Alegría et al., 2004; Compton, Thomas, Stinson, & Grant, 2007; Demyttenaere et al., 2004; Grant et al., 2004; Jackson et al., 2004; Kessler, 2010; Williams et al., 2007), we develop a conceptual approach to unpacking sociocultural variation. To provide an organizing framework for the chapter, we argue that race, nativity, ethnicity, and cultural influences affect mental health status in three important and overlapping ways.

First, valid and reliable *assessment* of mental health status is hindered by sampling designs and operational definitions that pay insufficient attention to sociocultural variation. Second, race, nativity, and ethnicity are stratifying *social statuses* that are associated with increased exposure to stressful events among subordinate groups. Conflicting cultural influences are also often associated with, and directly related to, adverse mental health outcomes. Third and finally, *predictors* of mental health outcomes vary in essential ways depending upon race, nativity, ethnicity, and cultural influences.

Though necessarily broad in scope, our coverage of these topics is not meant to be exhaustive. Rather we aim to illustrate implications of attending to sociocultural variation when investigating mental health status and simultaneously employing a sociological framework. Thus, we orient ourselves toward possibilities for future mental health research in sociology.

The chapter proceeds as follows. In the next section, we define race, nativity, ethnicity, and cultural influences. We then discuss how a more precise understanding of these constructs enriches our knowledge of mental health status in terms of assessment, social statuses, and predictors. Finally, we present an agenda for future research regarding mental health status that emphasizes the centrality of sociocultural variation.

Achieving Conceptual Clarity

In most sociological research that examines mental health status, race, nativity, ethnicity, and cultural influences are rarely defined in a theoretically informed or consistent way. In some cases, these terms are used inaccurately (for further discussion, see Comstock et al., 2004; Small, 1994; Snipp, 2003, 2007; Wilkinson & King, 1987; Williams et al., 1994). For example, published articles do not consistently classify Hispanics or American Indians as racial groups (Comstock et al., 2004; Snipp, 2003). Such inconsistency means nativity variation within the Hispanic race is obscured as is ethnic variation within the American Indian race. In addition, sociologists frequently neglect the consequences of cultural influences. Very rarely, for example, is cultural variation within black populations considered in studies of mental health (for exceptions, see Jackson et al., 2004, 2007; Williams et al., 2007). This oversight leads routinely to discussion of cultural influences as residual effects—that is, effects considered to be unobserved error. Such discussion hampers our understanding of mental health status in the United States and beyond (Breslau et al., 2007; Chen & Kazanjian, 2005; Demyttenaere et al., 2004) because differential lived experiences are ignored. We must unpack the residual effects to comprehend the complexity of sociocultural variation embedded in the patterns we observe.

Here we present working definitions of race, nativity, ethnicity, and cultural influences, while acknowledging considerable overlap among these constructs. These working definitions establish consistent language that we use in the remainder of the chapter. Ultimately, we demonstrate that modeling sociocultural variation means simultaneous and sustained attention to confluence of these constructs.

Defining Race

Most social scientists would agree that race is rarely treated in a theoretically informed way and that its significance for social relations remains hotly contested (Duster, 2003; Graves, 2001; Small, 1994; Snipp, 2003; Wilkinson & King, 1987). On the one hand, some scholars assert that race is an immutable biological status that can be accurately and reliably measured (Rushton & Jensen, 2005; see reviews of this line of work in Duster, 2003 and Graves, 2001). From this essentialist perspective, race is hypothesized to distinguish between groups on the basis of genetic characteristics that are shared within a racial group but differ between groups (e.g., International HapMap Project, see http://hapmap.ncbi.nlm.nih.gov/).

On the other hand, evidence supporting race as a purely biological construct is not robust, and many scholars view purely biological or genetic definitions of race as invalid (Duster, 2003; Graves, 2001; Hitlin, Brown, & Elder, 2007; Williams et al., 1994). In fact, history reveals that individuals move across racial categories or are often cross-classified, depending upon the social, political, or economic context (Campbell & Troyer, 2007; Hitlin et al., 2007; Snipp, 2003). As a consequence, many social scientists prefer to define race as a socially constructed status based upon observed phenotypic differences that manifest largely irrelevant underlying differences in genotype (Duster, 2003; Graves, 2001; Williams et al., 1994). This definition suggests that race is viable biologically only because there are ascriptive markers (e.g., skin color and hair texture) that have social meaning.

Race is often captured by self-identification and less often it is captured by others (typically interviewers) in community and hospital surveys that focus on health. Inconsistency between self-identification and other-identification adds further nuance to the operationalization of race (see Campbell & Troyer, 2007). Thus, an enduring or fixed definition of race is elusive because race classifications are socially constructed. Classifications depend on others' judgments, and individuals often opt (when they are allowed to do so) for a different race than the one assigned by an interviewer (Harris & Sim, 2002; Hitlin et al., 2007). In addition, because of the popularity of the multiracial movement and changes in the US Census question framing, individuals are allowed to "check all (races) that apply" in many social surveys and standard Census forms. The "check all that apply" response significantly complicates the operationalization of race.

Further and most importantly, race means identity or attachment to a racial group. This attachment is purportedly based upon shared experiences. But not everyone in any particular racial group shares the same experiences. The end-result is that race is constructed, deconstructed, and reconstructed by the nation-state, family, and the generalized other in mundane and strategic ways in virtually every social interaction. Race is only real in a scientific sense to the degree we treat each other as if race is real. We endorse a similar social constructivist position. In our assessment it follows that, quantitative mental health research leaves us habitually wondering exactly what a significant race difference means in multivariate regression models, where self-reported race is measured using dummy variable coding (0,1) and the effects of other variables are controlled. Specifically, even when there is a statistically significant race difference, the race effect is proxy for identity, shared experiences, discrimination, and so forth, and correlated with cultural influences in the residual term (Wilkinson & King, 1987).

Our working definition of race is: a socially constructed status defined through and by social interaction across historical time that categorizes individuals according to phenotypic variation, which supposedly indicates meaningful underlying genetic variation. We propose that there are six race categories in the United States: whites, blacks, Asians, Hispanics, American Indians, and others (Hitlin et al., 2007; Snipp, 2003). Note that Hispanic is sometimes not treated as a racial group today, but as Hitlin and colleagues (2007) argue, treating it as one tends to more accurately capture the lived experiences of those who identify as Hispanic.

Defining Nativity

Scholars define nativity as being born in, or outside of, the United States. We agree with this basic definition, but we propose that nativity means more, because being born in, or outside of, the United States shapes experiential paradigms (in the same manner described above with respect to race) of the US-born and foreign-born. For example, we argue that foreign-born nativity taps into assimilation and acculturation processes that may have enduring psychological consequences. These shared experiences are connected to attributes that include generational status (e.g., being the child or grandchild of foreign-born parents), type of immigrant (e.g., whether refugee or not), age at entry (e.g., whether entering as a child, working adult, or elderly), period of entry (e.g., whether migrating during periods of economic recession/growth, xenophobia and enforcement, or high nationalism), length of US residence, and legal status.

Unfortunately, social scientists have not systematically investigated how nativity is linked to mental health status (for exceptions see Amer & Hovey, 2007; Breslau et al., 2007; Donato, Kanaiaupuni, & Stainback, 2003; Fadiman, 1997; Yip et al., 2008). In part, this is a consequence of data and sampling design limitations, which typically offer sample sizes too small for meaningful quantitative analyses of specific nativity groups. However, these limitations are offset by nationally representative, cross-sectional survey data collection efforts that include large samples of individuals with differing nativity across specific racial and ethnic groups. These include the National Survey of American Life (NSAL; see Jackson et al., 2004), the National Latino and Asian American Survey (NLAAS; see Alegría et al., 2004), and the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC; see Grant et al., 2004). These survey data include attributes related to contexts of immigrants' reception and exit, which Portes and Rumbaut (1990) argue are critical to understanding immigrants' experiences. Therefore, although the definition of nativity is uncontested (unlike race), the meaning of nativity is layered because of heterogeneity among immigrants. Consider how fundamentally different the lives are of a Mexican immigrant living in New York City and a Mexican immigrant living in Birmingham, Alabama. As such, it is important that researchers linking nativity with mental health status consider place (see Aguilera & López, 2008; Alegría et al., 2004; Zheng et al., 1997) and the other markers signaled by nativity (e.g., generational status, type of immigrant, age at entry, and so on).

Defining Ethnicity

Ethnicity is defined as the voluntary grouping of individuals according to shared geographic birthplace and national heritage (Anderson, 1991; Berreman, 1991; Waters, 1999). Ethnicity must be salient to the individual for it to have consequences for mental health status. In this sense, ethnicity reflects identity (like race). In addition, shared geographic birthplace and national heritage can be objective (e.g., your father immigrated to the United States from Italy) but also subjective (e.g., you perceive that your family is Italian but there is no evidence to prove it). Some individuals feel a strong connection to Italy and reference their (objective or subjective) Italian heritage. These individuals may never have been to Italy or may not be able to prove that their family actually has Italian roots. Others may be able to prove that their family roots are Italian but feel virtually no connection to Italy. In that case, Italian is not a salient ethnicity for them. Thus, we specify that ethnicity taps into a putative salience nurtured by shared geographic birthplace and national heritage. We use the word putative because in most contexts, mixtures of various ethnic groups have become racialized (e.g., whites in the United States are comprised of many ethnic groups that have various salience characteristics).

Ethnicity, like nativity, is importantly connected to place—being Jamaican in Queens, New York is different than being Jamaican in St. Paul, Minnesota. Relatedly, living in ethnic enclaves, which are ethnically (and often culturally) homogeneous neighborhoods and communities, is an important but neglected correlate of mental health status.

What explains the superficial treatment of ethnicity in the literature? One answer is that ethnicity is a difficult construct to conceptualize (Amer & Hovey, 2007; Anderson, 1991; Berreman, 1991; Comstock et al., 2004; Lawson, 1986; Waters, 1999). Difficulty associated with theorizing ethnicity is demonstrated by the complication it adds to measuring race. For example, the racial group American Indians is comprised of more than 400 distinct ethnic tribes (Snipp, 2007).

Most researchers would agree that humans are born without ethnicity. They would suggest, in contrast, that it is a socialized and voluntarily achieved status (see e.g., Brown, Tanner-Smith, Lesane-Brown, & Ezell, 2007). Examples of US ethnic groups include Haitians, Hopi Indians, Cubans, Mexicans, Germans, Italians, and Filipinos. These examples include groups that range broadly on dimensions such as group size, phenotypic distinctiveness, and salience of ethnicity. Some of these groups are themselves comprised of multiple ethnic groups, each with its own language, style, mores, prejudices, preferences, and daily activities. For example, Mexicans may be comprised of Nahautl, Zapotec, and Maya. Thus, ethnicity is an achieved and voluntary status having many layers which are hardened through socialization.

Defining Cultural Influences

At one level, culture is the general canvas on which the race, nativity, and ethnicity mosaic of the United States is painted (e.g., US culture or Western culture). At another level, culture is the many distinct colors comprising the mosaic (e.g., Vietnamese culture, African American culture, urban culture, and so on; Alba & Nee, 2003). Thus culture represents multi-level, simultaneous, reciprocal exchanges between groups and individuals and institutions, and these exchanges create webs of cognitions (Alarcon, 1995; Norton & Manson, 1996; Swidler, 1986). For instance, US culture has an influence on Asians and the presence of Asians in the United States influences US culture. To sharpen that point, the presence of Japanese, Chinese, and similar ethnic and immigrant groups has distinct and abiding impacts on North American culture (Berry, 1998; Berry, Kim, Minde, & Mok, 1987; Berry, Phinney, Sam, & Vedder, 2006; Portes & Rumbaut, 1990).

Culture is difficult to define (unlike nativity). It is unbounded, fluid, and contagious (Kleinman, 1988), and individuals, irrespective of their racial, foreign-born, and/or ethnic statuses, often need to reconcile multiple cultural influences. Culture, therefore, has both macro- and micro-level influences, and many individuals learn to manage conflicts and cultural strains with great facility (Fadiman, 1997; Guarnaccia et al., 2007; López & Guarnaccia, 2000). Someone who immigrated to the United States from Germany, for example, may embrace US culture (macro-level influence) and simultaneously embrace their German culture (micro-level influence). Therefore, studying cultural influences is important because culture is dynamic and interactive.

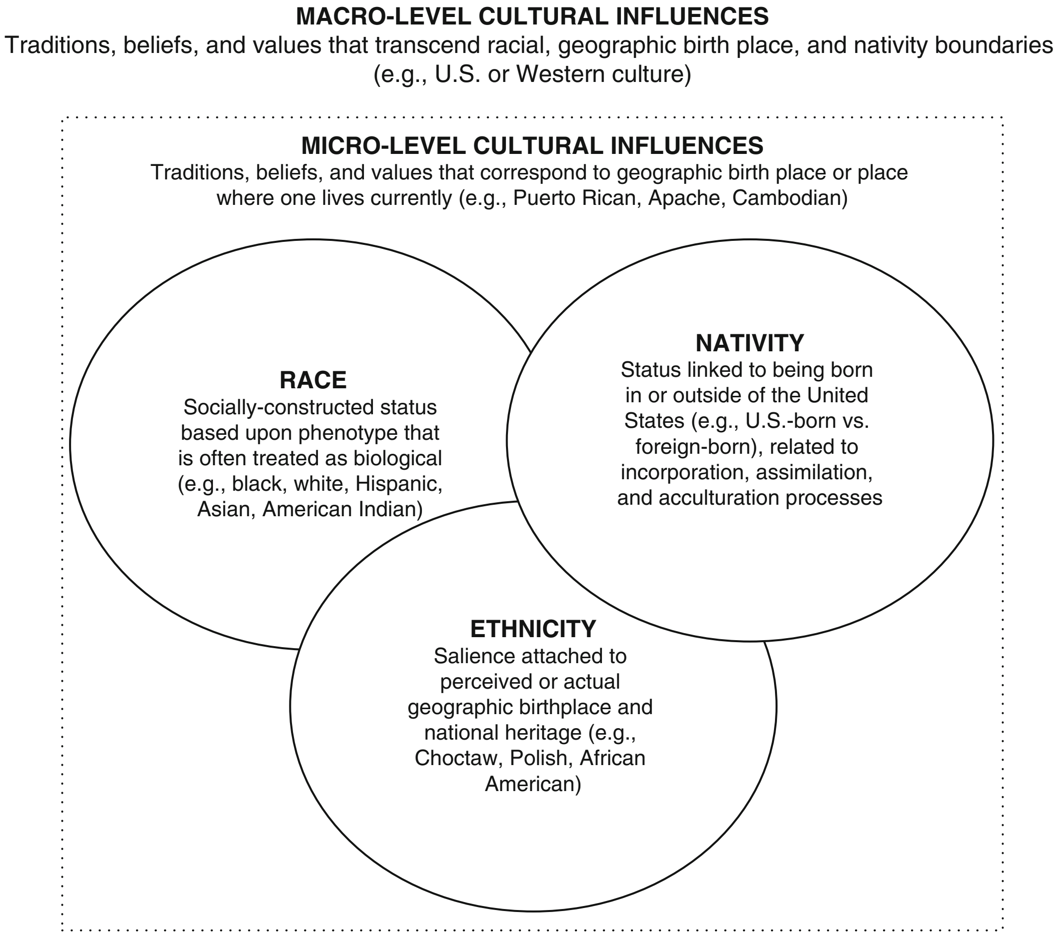

Fig. 13.1 Conceptual distinctions and relations among race, nativity, ethnicity, and cultural influences

Cultural influences define how one sees oneself in relation to the social environment and how one functions in everyday life (Fadiman, 1997; Kleinman, 1988; Swidler, 1986). We believe that cultural influences represent dynamic, action-oriented ways of living (i.e., traditions, beliefs, and values) that people use to meet psychosocial needs. These ways of living are passed on from generation to generation, in the form of traditions such as religion or food preferences, beliefs such as meritocracy or generalized distrust of others, and values such as the centrality of family or materialism (Brown et al., 2007). Ways of living may change over time and across region in response to major social transformations. When defined in this way, cultural influences become important to sociologists of mental health (see Fadiman, 1997; López & Guarnaccia, 2000; Kleinman, 1988; Rogler, 1996, 1999).

Figure 13.1 illustrates confluence and independence of race, nativity, ethnicity, and cultural influences. The figure's layout implies specific conceptual connections. For example, macro-level cultural influences comprise the background to other constructs. Moving inward, micro-level cultural influences are nested within the macro-level background and both affect lived experiences generated by race, nativity, and ethnicity.

More specifically, race, ethnicity, and nativity are contingent on macro- and micro-level cultural influences. For example, racialization processes (i.e., institutional arrangements that create races and reify racial group boundaries) ensure that race transcends ethnicity and nativity in the United States.

Conversely, in some nations, like Germany and Japan, citizenship (nativity) trumps all other social statuses. Further, individuals living in the United States may differentially embrace their ethnic heritage. Circular shapes representing race, nativity, and ethnicity overlap. For example, among whites, there are many ethnic groups (e.g., Germans, Italians, Mexicans, Egyptians, and Indians) and in past generations, sizable portions were foreign-born. Over time, they increasingly share US cultural influences. The same is true of racial groups living in specific regions in the United States. For example, some African Americans and whites share a Southern cultural influence. However, ethnic groups within racial groups also have a culture. For example, the cultural influences that affect Somalis and Jamaicans and African Americans are distinct but all three groups are treated as black. Further, a dark-skinned Dominican immigrant might be treated as black and identify with African Americans.

Development of measures that account for phenomena such as racialization and the impact of being foreign-born, while recognizing the centrality of ethnicity and cultural influences, would permit systematic study of sociocultural variation. We believe such measures must become standard in future survey data collections. The utility of those measures would extend well beyond the study of mental health status.

Figure 13.2 presents four survey questions that disentangle race, nativity, ethnicity, and cultural influences. The first question asks about racial group membership(s). The second question asks whether you were born in the United States. The third asks about ethnic group membership(s). The fourth question captures cultural influences. With information collected from these four survey questions, sociologists of mental health could address assumptions about race, nativity, ethnicity, and cultural influences. For example, researchers who study assimilation and acculturation processes could explore nuances previously unexamined. They could compare foreign-born individuals who self-identify as Asian and claim a Chinese ethnicity and Chinese cultural influences to those US-born who self-identify as Asian, claim a Chinese ethnicity, but embrace US cultural influences. A systematic approach to disentangling race, nativity, ethnicity, and cultural influences is required for researchers to comprehend the constructs' joint effects on mental health status. Sociologists of mental health could become forerunners in specifying the significance of sociocultural variation.

Importance of Race, Nativity, Ethnicity, and Cultural Influences for Understanding Mental Health Status

We return now to the chapter's organizing framework. We propose that race, nativity, ethnicity, and cultural influences affect mental health status in three ways. First, *assessment* issues (e.g., sampling, definition, measurement, etc.) impair our ability to collect valid and reliable data on mental health status by race, ethnicity, nativity, and cultural influences. Second, race, nativity, and ethnicity expose individuals to stressful events because they are stratifying *social statuses*, and conflicting cultural influences can have a deleterious psychological impact. Third and finally, race, nativity, ethnicity, and cultural influences alter relationships of established *predictors* to mental health status.

Before examining assessment, social statuses, and predictors in detail, we establish the state of the field regarding sociocultural variation and mental health status. Since publication of the previous edition of this handbook, several nationally representative, cross-sectional, community epidemiologic surveys of mental health status, supported by the National Institutes of Health (NIH), have been conducted. Those survey studies illustrate significant progress toward explicating in detail the meaning, etiology, and distribution of psychological health and illness.

For instance, Table 13.1 describes lifetime prevalence rates of major depressive disorder, generalized anxiety disorder, and substance use disorders according to race, nativity, and ethnicity. The prevalence rates are reported in published studies that use data from the NIH community epidemiologic surveys alluded to above. To be conservative, we present the lowest reported lifetime prevalence rate across these studies (the studies are listed in the note for Table 13.1).

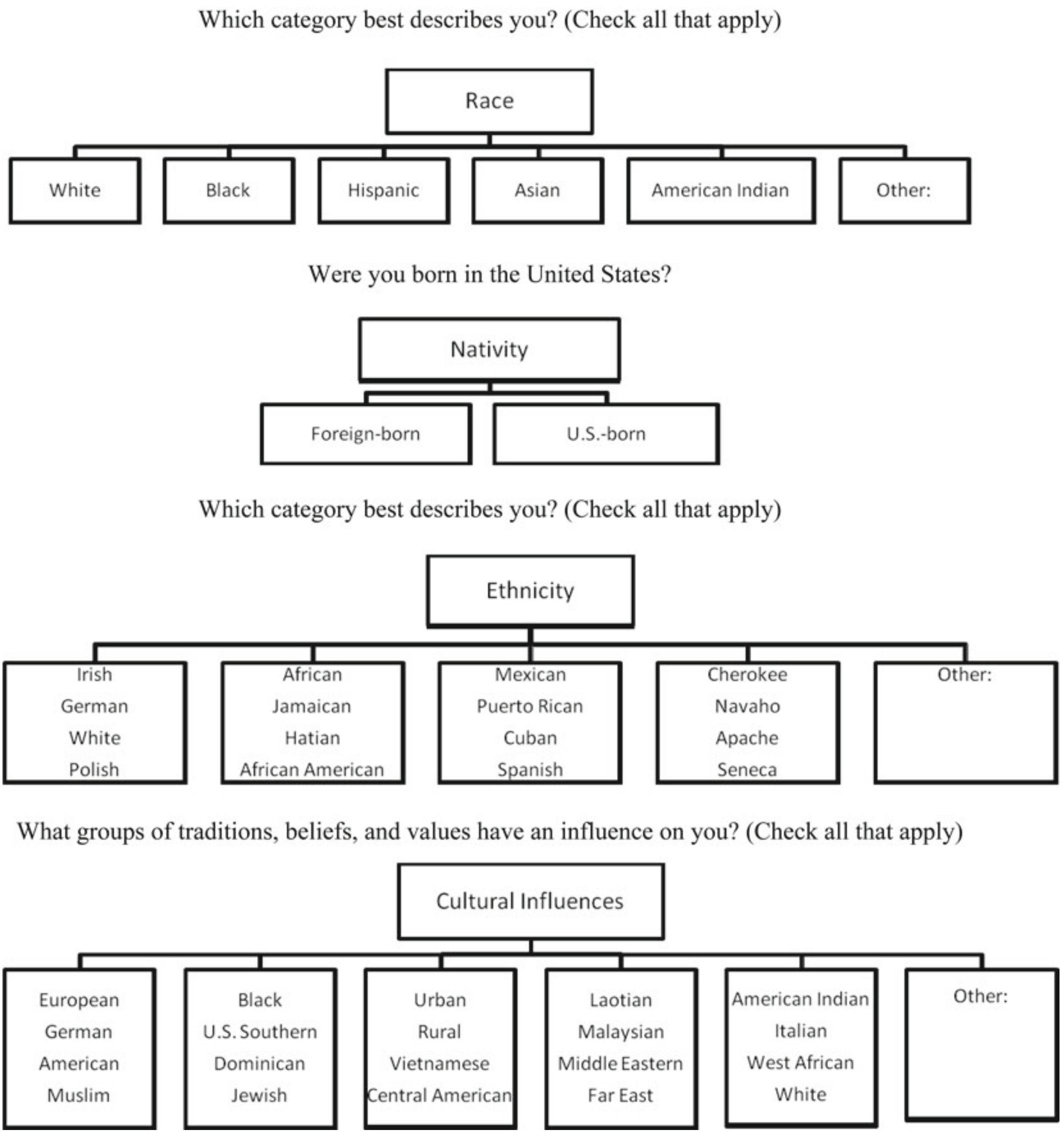

Fig. 13.2 Measuring race, nativity, ethnicity, and cultural influences

Table 13.1 reveals that American Indians face the highest lifetime risk of such disorders among any racial group. Their lifetime prevalence of major depressive disorder is at least twice that of Asians, blacks, and Hispanics, and significantly higher than whites (19.17 vs. 8.77, 8.93, 9.64, and 14.58, respectively). Similarly, American Indians fare worse than other racial groups in their lifetime prevalence of generalized anxiety disorder, alcohol and drug abuse, and alcohol and drug dependence. Table 13.1 also reveals considerable ethnic variation in the prevalence of these disorders. For example, Puerto Ricans and Cubans show the highest lifetime prevalence for major depressive disorder, and among the three ethnic groups for which data about generalized anxiety disorder are available, Puerto Ricans fare the worst. With respect to substance abuse and dependence, rates of lifetime prevalence are highest for African Americans although detailed data about alcohol and drug abuse and dependence are not available for this group or for Caribbean blacks. Finally, in terms of nativity differentials, the highest lifetime prevalence rates are for white US-born compared to white foreign-born, Latino US-born, and Latino

Table 13.1 Lifetime prevalence of select psychiatric disorders as reported in nationally representative, cross-sectional community epidemiologic surveys conducted in the United States

	Major depressive disorder	Generalized anxiety disorder	Substance abuse		Substance dependence	
			Alcohol	Drug	Alcohol	Drug
Race						
Asian	8.77[f]	1.9[e]	5.6[g]	2.9[b]	6.0[g]	1.0[b]
Black	8.93[f]	3.0[e]	12.2[g]	6.4[b]	8.4[g]	2.4[b]
Hispanic	9.64[f]	2.8[e]	5.9[a]	3.6[a]	4.3[a]	2.0[a]
American Indian	19.17[f]	6.3[e]	22.9[g]	11.6[b]	20.1[g]	6.9[b]
White	14.58[f]	4.6[d,e]	9.0[a]	6.6[a]	7.0[a]	2.7[b,d]
Ethnicity						
African American	10.4[h]	–	11.5[h]	–	4.9[h]	–
Caribbean Black	12.9[h]	–	9.6[h]	–	4.1[h]	–
Cuban	18.6[a]	5.4[a]	3.1[a]	1.0[a]	2.4[a]	1.5[a]
Mexican	7.7[d]	2.3[d]	6.0[a]	3.7[a]	4.7[a]	2.1[a]
Puerto Rican	19.4[a]	7.3[a]	7.1[a]	3.8[a]	5.5[a]	3.7[a]
Nativity						
Latino foreign-born	13.4[a]	4.7[a]	3.5[a]	2.2[a]	2.8[a]	1.7[a]
Latino US-born	18.6[a]	4.4[a]	9.3263[a]	6.1[a]	6.9[a]	5.1[a]
White foreign-born	17.5[a]	8.1[a]	5.9[a]	4.1[a]	4.0[a]	3.5[a]
White US-born	26.9[a]	10.0[a]	12.1[a]	7.7[a]	10.1[a]	6.4[a]

Note: This table includes the lowest reported prevalence rates when rates differed across studies. Superscripts denote references to particular studies.

[a] Alegría, Mulvaney-Day, Torres, et al. (2007): National Latino and Asian American Study
[b] Compton et al. (2007): National Epidemiologic Survey on Alcohol and Related Conditions
[c] Gavin et al. (2010): Collaborative Psychiatric Epidemiology Studies
[d] Grant et al. (2004): National Epidemiologic Survey on Alcohol and Related Conditions
[e] Grant et al. (2005): National Epidemiologic Survey on Alcohol and Related Conditions
[f] Hasin, Goodwin, Stinson, and Grant (2005): National Epidemiologic Survey on Alcohol and Related Conditions
[g] Hasin, Stinson, Ogburn, and Grant (2007): National Epidemiologic Survey on Alcohol and Related Conditions
[h] Williams et al. (2007): National Survey of American Life

foreign-born. For example, lifetime prevalence rates of major depressive disorder are 26.9 for white US-born versus 17.5 for white foreign-born, 18.6 for Latino US-born, and 13.4 Latino foreign-born.

Data presented in Table 13.1 represent progress toward understanding sociocultural variation and its consequence for mental health; such data did not exist a decade ago, and we would not have been able to describe these differences then. Yet, despite this progress, four weaknesses remain: first, some racial, ethnic, and nativity groups are not represented; second, intersections of sociocultural variation are not well-represented; third, the disorders shown are a small sample from the disorder population; and finally, cultural homogeneity is assumed and, thus, the influence of culture within and between groups is omitted. We consider next how assessment, social status, and predictors of mental health link to sociocultural variation.

Why Assessment of Mental Health Status Depends Upon Sociocultural Variation

Samples in community psychiatric epidemiologic surveys rarely represent sociocultural variation adequately (for further discussion, see Jackson et al., 2004; López & Guarnaccia, 2000; Williams et al., 2010). We acknowledge legitimate difficulty in attaining representative samples of racial and ethnic groups in such surveys (e.g., American Indians and Alaskan Natives; Meketon, 1983; Norton & Manson, 1996). Many factors influence sampling design and data quality including residential racial segregation, cultural mistrust, geographic isolation, geographic clustering, US Census undercounting, and the small size of some national origin groups (Alegría et al., 2004; Williams et al., 2010).

We believe that issues with representativeness are related fundamentally to inadequate attention to the significance of race, nativity, ethnicity, and cultural influences for mental health status. However, in the last 10 years, sociologists have made substantial progress in developing sampling designs that are more sensitive to sociocultural variation. For example, see a description of the NLAAS sampling design at http://www.multiculturalmentalhealth.org/nlaas.asp.

Emergence of structured diagnostic interview schedules has allowed researchers to estimate the incidence and prevalence of psychiatric disorders in the community. Unfortunately as described above, many community psychiatric epidemiologic surveys still lack large enough sample sizes of certain groups to estimate reliably the incidence and prevalence of psychiatric disorders.[1] Even probability weights applied to make these survey data comparable to US Census estimates do not overcome coverage, non-response, or undercount problems (Williams & Williams-Morris, 2000; Williams et al., 2010). Moreover, structured diagnostic interview schedules have not been tested sufficiently for measurement invariance across racial, ethnic, and nativity groups (Brown, 2003; Hendricks et al., 1983; López & Guarnaccia, 2000; Moodley, 2000; Rogler, 1996, 1999). In addition, many studies combine individuals of varying ethnic categories (e.g., Mexican, Cuban, and Puerto Rican) into one racial group (e.g., Hispanic), ignoring sociocultural variation between and within the constitutive ethnic categories (but see Alegría, Mulvaney-Day, Torres, et al., 2007; Alegría, Mulvaney-Day, Woo, et al., 2007; Alegría, Shrout, et al., 2007). Note that similar ethnic variation among whites is also neglected.

Not unrelated, heterogeneity between groups affects assessment in important ways. For example, research indicates that some racial and ethnic minority groups are more likely to engage in somatization of psychological problems (López & Guarnaccia, 2000; Moodley, 2000). Yet, a number of symptom checklists are designed to rule out physical health problems (but see Kessler et al., 2002), resulting in the under-reporting of mental health problems among minority groups (Vega & Rumbaut, 1991).

Under- or misdiagnosis of particular psychiatric disorders is common for blacks (Metzl, 2009; Neighbors, Jackson, Campbell, & Williams, 1989) and other racial and ethnic groups (see Chen & Kazanjian, 2005; Neighbors, Trierweiler, Ford, & Muroff, 2003; Takeuchi, Chun, Gong, & Shen, 2002). Psychiatrists tend to give correct diagnoses for a schizophrenic case description or a personality disorder case description when no identifying racial information on the patients is given. When race is specified, however, irrespective of psychiatrists' race, black patients are more likely to be given more severe diagnoses (Neighbors et al., 1989, 2003). Even when instructed to use Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria when reviewing charts of black patients, clinicians are still more likely to diagnose black patients as having schizophrenia (Metzl, 2009; Neighbors et al., 2003). Raskin, Crook, and Herman (1975), in a study of diagnostic bias, find that blacks are more likely to be diagnosed with some form of schizophrenia, whereas white patients are more likely to be diagnosed as depressed. Although clinical misdiagnosis is not directly related to community epidemiologic surveys, the bias revealed suggests another way that race and cultural influences alter assessment of mental health status (and adversely influence interaction between researcher/clinician and respondent/client—see "Cultural Competencies: Beyond Clinical Applications").

Social Statuses as Sources of Stress

Race, nativity, ethnicity, and cultural influences are implicated in the stratification of groups and are associated with variation in socioeconomic status (e.g., education, income, employment; Alba & Nee, 2003; Berreman, 1991; Carter, 1994; Essed, 1991; Waldinger & Lichter, 2003). Sociocultural variation

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[1] This was especially true for early studies that had small samples of non-white groups, at times as low as 1% (e.g., the Epidemiologic Catchment Area Study [ECA]; Robins, Helzer, Croughan, & Ratcliff, 1981). In addition, high non-response rates among certain segments of ethnic groups (e.g., African American men) likely led to biased estimates.

is also linked to stressful events via racism and xenophobia. For example, many immigrants report experiences of acculturative stress (Berry, 1998; Berry et al., 1987, 2006; Lee, Koeske, & Sales, 2004; Lueck & Wilson, 2013; Rogler, Cortes, & Malgady, 1991; Salgado de Snyder, 1987; Takeuchi et al., 2002; Vega, Koury, Zimmerman, Gil, & Warheit, 1995; Vega & Rumbaut, 1991) when forced to negotiate the relative importance of home-country cultural influences in juxtaposition to US cultural influences. Non-immigrant individuals of color may experience learned helplessness or engage in hyper-vigilance (Brown, 2008; Essed, 1991; Williams & Williams-Morris, 2000) as a result of systematic social exclusion from US society on the basis of their race, ethnicity, or cultural distinctiveness. Further, blacks, Asians, Hispanics, and American Indians may internalize notions propagated in the dominant culture about their inherent inferiority (Akbar, 1991; Brown, 2003).

Most individuals experience stress attributable to roles and statuses. However, mental health researchers acknowledge that insufficient attention has been devoted to the stress that someone does or does not experience because of race, nativity, ethnicity, or cultural influences (Aguilera-Guzmán, Salgado de Snyder, Romero, & Medina-Mora, 2004; Akbar, 1991; Brown, 2008; Brown & Keith, 2003; Carter, 1994; Rogler et al., 1991; Salgado de Snyder, 1987; Taylor & Turner, 2002; Williams & Williams-Morris, 2000). Even though the topic has not been systematically studied, we suspect that discrimination is inherently stressful for those who are discriminated against, partly because of the salience and visibility of racial and ethnic identities that are the basis of maltreatment. Similarly, immigration is closely linked to ethnicity and cultural influences and may have consequences for mental health outcomes (Grant et al., 2004; López & Guarnaccia, 2000; Noh et al., 2007; Portes & Rumbaut, 1990; Vega & Rumbaut, 1991; Yip et al., 2008). Berry and colleagues (2006), for example, explore acculturation at the individual and group level and suggest that acculturation processes depend on the macro- (e.g., country of origin, type of acculturation, acculturation ideology) and micro-levels (e.g., acculturative stress, age, gender, personality, social support). Further, Berry notes that acculturation is multifaceted because it involves all sending and host groups involved in the transformation, not just the acculturating immigrants in destinations. This last point has led some to conclude that immigrant health data collection efforts must incorporate binational data about persons in origin and destination communities (Donato & Duncan, 2013; Donato et al., 2003).

Finally, a constellation of cultural influences acting upon an individual can change their definition of illness, perceptions of symptoms, and health behaviors (Lawson, 1986; López & Guarnaccia, 2000; Takeuchi et al., 2002; Williams et al., 2010; Zheng et al., 1997). Cultural beliefs about the causes of mental illness can also influence treatment outcomes and symptom expression (Lawson, 1986; Levine & Gaw, 1995; Meketon, 1983; Moodley, 2000; Nadeem et al., 2007; Takeuchi et al., 2002). For instance, symptoms unique to a culture (e.g., Haitians' belief in spirit possession) may be unfamiliar to the clinician and consequently result in misdiagnosis or misspecification of symptomatology (see "Culture-Bound Syndromes: Evidence of Sociocultural Variation"; Levine & Gaw, 1995; López & Guarnaccia, 2000; Rogler, 1996, 1999; Zheng et al., 1997). Research indicates that there is considerable sociocultural variation in the onset of any given disorder, willingness to discuss mental health problems, and hardiness (Chen & Kazanjian, 2005; Constantine, 2001; Jackson et al., 2007; James, 1994; Kuo & Tsai, 1986), among other factors.

How Predictors of Mental Health Status Link to Sociocultural Variation

Established correlates of mental health status such as age, discrimination, gender, help-seeking, socioeconomic status, and so on are dependent upon race, nativity, ethnicity, and cultural influences. For example, Kuo (1995) examined the distribution of discrimination episodes and problem- versus emotion-focused coping in a sample of 499 Asians (i.e., Koreans, Japanese, Filipinos, and Chinese in Seattle, Washington). Respondents were asked whether: (1) they experience discrimination when seeking housing, (2) they are treated badly or differently than whites at their job, and (3) they experience any other racial discrimination. Fifteen percent reported housing discrimination, 30% reported work-related incidents, and 39% reported some other kind of discriminatory episode (e.g., internment, trouble getting a license, racial jokes and slurs). Kuo (1995) found statistically significant differences between ethnic groups in episodes of discrimination, coping styles, cultural values, and perceptions of minority status. Filipino and Japanese respondents were more likely to report discrimination than Koreans in this sample. Chinese respondents were less likely to use problem-focused coping, whereas Filipinos were more likely to use emotion-focused coping when compared to Koreans. Japanese and Chinese respondents used similar coping strategies. These results confirm that how discrimination is perceived and how particular groups cope with it is contingent on sociocultural variation (Aguilera-Guzmán et al., 2004; Brown, 2008; Brown & Keith, 2003; Kuo, 1995; Noh et al., 2007; Rogler et al., 1991; Salgado de Snyder, 1987; Taylor & Turner, 2002; Williams & Williams-Morris, 2000).

Other correlates of mental health status such as identity, personality, and biomarkers may vary according to race, nativity, ethnicity, and the cultural influences acting on an individual (Amer & Hovey, 2007; Essed, 1991; Hovey & Magaña, 2002; James, 1994; Lawson, 1986; López & Guarnaccia, 2000, p. 589). For example, some researchers believe that the relatively low level of psychopathology among some immigrant and racial groups, when compared to US-born whites, may be attributable to ethnic identity and hardiness (James, 1994; Kuo & Tsai, 1986; Mossakowski, 2003; Neff, 1985; Yip et al., 2008). We know that most immigrants embrace a collectivist rather than individualist orientation and are more likely than non-immigrants to reference persons from their geographic birthplaces (Waldinger & Lichter, 2003). Specifically, immigrants who reject an individualist orientation may be less vulnerable to stress compared to those who put their immigrant community's well-being ahead of their own. If immigrants compare their lifestyle and life chances to those still living in their home country (which is likely impoverished compared to the United States), they may experience a salubrious boost from that comparison. In fact, many immigrants may initially appear healthier than the US-born because they have not yet incorporated an individualistic orientation and begun to compare themselves socially to the US-born. Therefore, this type of orientation may buffer the impact of stressful events and help explain the immigrant health paradox (i.e., better health outcomes among the foreign-born vs. US-born).

Finally, a small number of researchers suggest that biomarkers interact with race, nativity, ethnicity, and cultural influences to affect important predictors of psychiatric disorder. For example, Lawson (1986) suggests that there may be important sociocultural influences in terms of pharmacotherapy and the effectiveness of psychotropic drug dosage. He reports that there are differences in cortisol suppression, enzyme release, and levels of particular hormones among individuals with the same psychiatric disorder from different races. Such biomarkers have been linked to disorders such as obsessive-compulsive disorder, schizophrenia, and dementia without depression. Lawson also discusses the empirical finding that Asians and blacks with psychiatric disorders often respond more quickly to lower doses of certain psychotropic drugs than do whites. Although Lawson's (1986) work is intriguing, it does not incorporate the (interactive) role of the physical and social environment nor make qualifications about the generalizability of effects in reference to ethnic differences, nativity, or cultural influences within Asian and black racial groups.

Implications for Research

With existing data from nationally representative, cross-sectional, community epidemiologic surveys, researchers are now better able to compare racial groups and (to a lesser extent) ethnic groups. However, high-quality data on mental health status by race, nativity, and ethnicity that accounts simultaneously for cultural influences does not exist. Consequently, the mental health status of many ethnic and foreign-born groups receives little or no systematic research attention in the literature (Alegría, Mulvaney-Day, Torres, et al., 2007; Alegría, Mulvaney-Day, Woo, et al., 2007; Alegría, Shrout, et al., 2007; Jackson et al., 2004; Takeuchi et al., 2002; Vega & Rumbaut, 1991). Further, cultural influences remain a black box among sociologists of mental health. Fortunately, we believe future investigations can address these concerns.

We propose a future research agenda that engages: (1) intersectionality, (2) cultural competencies, (3) control groups, and (4) culture-bound syndromes. In sections that follow, we draw attention to research implications of these four issues for mental health status. We offer examples of how to approach the study of sociocultural variation. This approach exposes lacunae in the mental health literature that we entreat researchers to explore.

Intersectionality: Making Sense of Simultaneity

Figure 13.1 suggests that race, nativity, ethnicity, and cultural influences are not orthogonal. These constructs interact synergistically to shape experiential paradigms of individuals (and groups) in critical ways. Thus, it is virtually impossible to adequately analyze any of these four constructs without considering simultaneously the remaining three. Modeling such synergy and simultaneity may seem a Herculean task. However, small steps can lead the field toward that goal. One such step would be to incorporate the concept of intersectionality, which means to consider the synergistic and simultaneous effects by multiple statuses such as race, sexual orientation, social class, gender, and so on.

Intersectionality originated in black feminist writings (Collins, 1990; Crenshaw, 1989). The concept emerged from criticism of empirical approaches that disaggregated race from gender, and both race and gender from socioeconomic status (Collins, 1990). From a positivist stance, intersectionality implies statistical interaction and suggests that effects of race, socioeconomic status, and gender are contingent on one another (for work implicating intersectionality in mental health research see Brown & Keith, 2003; Nadeem et al., 2007; Vega, Kolody, Valle, & Hough, 1986).

We advocate for intersectionality in the following sense. Researchers studying mental health should consider simultaneously race, nativity, ethnicity, and cultural influences. We propose that this approach would result in a more interesting, theoretically informed, reliable, and valid understanding of mental health status. Individuals' perspectives would be more accurately described (Moodley, 2000; Nadeem et al., 2007; Takeuchi et al., 2002). Far too often subgroups' conceptions of mental health are neglected in an effort to establish reliable measures that work for the larger population group (Brown, 2003, 2008; Rogler, 1996, 1999). For example, black women whose ethnicity is African American and black women whose ethnicity is Haitian, both of whom are US-born, would likely give very different answers to questions about what depression means to them and what constitutes and causes mental health problems. Much would be learned by content analyzing and comparing the two groups' answers to questions about mental health status.

In addition, embracing intersectionality may lead to regional, longitudinal studies of specific groups or communities. As mentioned earlier, scholars of mental health are learning a great deal from nationally representative, cross-sectional, community psychiatric epidemiologic surveys. Such surveys provide incidence and prevalence rates for whites, Asians, Latinos, and blacks and they include established correlates of mental health status. However, they shed minimal light on how macro- and micro-level cultural influences play out in individuals' lives, and they provide a fuzzy snapshot of sociocultural variation as a process. These surveys treat dynamic dimensions of sociocultural variation (e.g., racial classifications, the salience of ethnicity, length of time since immigration, and the interplay of cultural influences) as static and consequently cannot represent the processes whereby individuals' accumulated lived experiences shape how they see the world, how the world sees them, and the impact of such things on mental health status. To offer a concrete example, being an immigrant does not mean the same thing today as it meant 10 years ago because of economic shifts and the rise of anti-immigrant sentiment in the United States.

Taking a different approach, we offer the following as exemplar hypothetical studies that demonstrate how intersectionality could be more central in the sociology of mental health. Consider a regional, longitudinal study of Cubans in Miami, Florida (see e.g., Taylor & Turner, 2002), and imagine similar (and simultaneous) regional, longitudinal studies of blacks in Gary, Indiana, Japanese living in Los Angeles, California, Mexicans in Houston, Texas, and American Indians living on a reserve in west central North Dakota. Much detail could be extracted from these data if race, nativity, ethnicity, and cultural influences were assessed systematically across these studies. Without doing explicit between-group comparisons, we may discover that some Cubans, blacks, Japanese, Mexicans, and American Indians are very much alike. In line with those who advocate for multiple mental health outcomes when examining the impact of stress (Aneshensel & Sucoff, 1996; Horwitz, White, & Howell-White, 1996), we advocate for multiple perspectives on the meaning of sociocultural variation for health.

Cultural Competencies: Beyond Clinical Applications

Cultural competencies are formally the (1) beliefs/attitudes, (2) knowledge, and (3) skills expressed and behaved by psychological counselors in contexts where their clients are culturally diverse (Boyle & Springer, 2001; Brach & Fraserirector, 2000; Constantine, 2001; Sue, 1998). Cultural competencies are indicated by a counselor's ability to communicate effectively with diverse clients according to clients' needs while taking their clients' perspectives seriously.

Key studies about cultural competencies were done in the early 1980s and refined in the early 1990s (Sue, 1998). These studies critiqued the lack of inclusiveness, altruism, appreciation of community, and attention to sociopolitical justice among psychological counselors. The demand for cultural competencies in psychological counseling was driven by two factors: (1) the changing racial and ethnic population composition of the United States and (2) the failure of universal approaches to solve diverse clients' psychosocial problems. Although they represented a growing proportion of those seeking mental health care and services, individuals from racial or socioeconomic backgrounds discordant from typical psychological counselors were portrayed as culturally deficient and from the "wrong" culture (Sue, 1998). The concept of cultural competencies has been embraced recently by fields such as social work (Boyle & Springer, 2001) and medicine (Brach & Fraserirector, 2000), and it is gaining traction in other fields such as education. Scholars today are engaged in ongoing debates about the appropriate level of measurement of cultural competencies (e.g., counselor, social worker, medical/service encounter, or the institution), how cultural competencies can be measured and measured reliably, and whether service providers can or should be trained to be culturally competent.

How can sociologists employ the concept of cultural competencies to support a research agenda where sociocultural variation is integral? First, we need to recognize (as some psychological counselors did in the early 1980s) the harm associated with getting it wrong. Specifically, social scientists publish research that may be biased in serious ways because of social distance between themselves and the communities they study. It may be the case that sociologists of mental health overlook psychopathology or over-pathologize ways of living that appear deviant to them only because they are not intimately familiar with individuals in the research community (Aguilera & López, 2008; Brown, 2003, 2008). Even though sociologists of mental health do not treat patients clinically, the basic science we publish has implications for funding, lawsuits, and health policy and can adversely affect the most disadvantaged among us. The most disadvantaged tend often to be racial and ethnic minorities and immigrants who are not incorporated fully into mainstream society. The path connecting biased research to harm is difficult to visualize but nonetheless real.

Second, we encourage sociologists of mental health to embrace the idea that the perspectives of racial and ethnic minorities and immigrants about their communities may be more valid than the perspectives of mainstream researchers. Value-free science is impossible in practice yet some researchers perceive that science is indeed value-free. This disjuncture between practice and perceptions is harmful because many researchers remain hesitant to trust indigenous scholars' ideas about their own communities (e.g., Cambodian immigrant scholars who study the mental health status of Cambodian immigrants) and virtually ignore specific communities' indigenous understandings of their members' psychological well-being. As with most subdisciplines, the sociology of mental health has not attended to how it distorts reality because of biographical and scientific biases (Brown, 2003, 2008; Rogler, 1999). For example, many mainstream scholars are interested in the immigrant health paradox or the black-white mental health paradox. Yet, these empirical patterns are paradoxes only for those who assume that US-born whites should be healthier and hardier, and that foreign-born or black individuals do not possess certain inherent strengths. In contrast, indigenous individuals recognize strengths in members of their own communities. They likewise recognize and can contextualize psychopathology that may be invisible to scholars without intimate knowledge of the community being studied.

Finally, mental health researchers would benefit if they acknowledged (as some psychological counselors did in the early 1980s) that sociocultural variation may mandate different methodological approaches to the study of mental health status. As Rogler (1999) notes, our insensitivity to the connection between sociocultural variation and mental health status may be endemic to procedural norms of science. For example, when Rogler (p. 427) modified the Diagnostic Interview Schedule (DIS) to reflect cultural concepts specific to Puerto Ricans living in Puerto Rico, he found that the lifetime prevalence of obsessive-compulsive disorder dropped by 66% and psychosexual dysfunction dropped by 81%. The point is that without first-hand working and intimate knowledge of a group, one is likely to mischaracterize empirical patterns (López & Guarnaccia, 2000; Moodley, 2000).

Following that line of thought, mental health researchers should evaluate whether standardization suppresses our ability to measure cultural influences (Rogler, 1999, pp. 427–429). For example, what are the costs of measurement invariance? Why do we exclude items from scales that perform very well but only for one subgroup? Is it possible that the valid measurement of anxiety disorder may require distinct sets of indicators by race, nativity, and ethnicity? Are items in standard scales written with a middle-class, white cultural influence bias? More than a decade ago, Rogler (p. 431) called for detailed accounts of cross-cultural modifications used in various research projects. We call for the reclamation of mental health measures cast aside because they had strong and desirable psychometric properties but only for a subgroup (e.g., Asians, Koreans, immigrant blacks, American Indian women, etc.). Determining how we arrived at a place where cultural insensitivity is commonplace requires a foray into past methodological practices.

Control Groups: Comparing Apples to Apples

Between-group comparisons—analyses of race, ethnicity, gender, socioeconomic, nativity, and other differences—are the hallmark of traditional quantitative analyses in sociology. In classic hypothesis testing, we seek to verify differences between groups. However, if we privilege sociocultural variation, then between-group comparisons may receive less attention than within-group comparisons. We suggest that US-born whites who identify most strongly with US cultural influences are not a universal control group because virtually all groups (including US-born whites) are internally heterogeneous (Guarnaccia et al., 2007; Harris & Sim, 2002; Small, 1994; Snipp, 2003, 2007). We argue therefore that within-group variation should receive greater attention.

In the case of mental health status, one outcome of privileging between-group comparisons is the equivalence problem—individuals within a group are assumed to be more alike than different.

Researchers end up comparing groups stereotyped to be internally consistent according to one particular characteristic (e.g., foreign-born vs. US-born) without considering sociocultural variation within these groups (e.g., cultural influences or ethnicity). For example, intriguing variation within the Asian race that results from immigration, ethnicity, and differing cultural influences is regularly ignored. Sociocultural variation is veiled because between-group comparisons focus on group averages. For example, Asians often report fewer psychosocial problems but there is variation in the Asian group such that the Japanese and Vietnamese could be very different from Laotians when considering psychological health and illness.

As a concrete example of addressing sociocultural variation, when examining the association between socioeconomic status and major depressive disorder, Gavin and associates (2010) focused on blacks, Latinos, Asians, and whites in the United States ($N=16{,}032$). Using the combined Collaborative Psychiatric Epidemiology Surveys (CPES) (i.e., National Comorbidity Study Replication [NCS-R], NSAL, NLAAS), the authors compared odds of past year major depressive disorder between US-born and foreign-born individuals. This work documented important gender differences within race, and also examined the impact of nativity status within race. Although they did not do it in this study, CPES data allow researchers to examine ethnic variation within race (e.g., Williams et al., 2007). While this study and other studies using these national community epidemiological survey data tap into sociocultural variation, there is still room for improvement. For example, what these data are missing is careful attention to cultural influences. Using a survey question similar to the one we suggest for measuring cultural influences, one could examine whether there are mental health status differences within a group (e.g., foreign-born Germans) related to reported cultural influences (e.g., American vs. German culture).

As another example, using the NSAL data, researchers are now comparing African Americans with Caribbean blacks (see Fig. 13.1). However, at this point and despite the progress made in the last decade, we lack data to address fully within-group variation and to untangle sociocultural variation. As we suggested earlier, future research should focus on data that examine, for instance, one racial group but that decomposes variation within it due to nativity, ethnicity, and cultural influences.

A practical strategy would involve using the four survey questions shown in Fig. 13.2. These four survey questions allow for discovery of similar and dissimilar patterns within groups. For example, American Indians who endorse their specific tribe's cultural influences may have similar mental health profiles to American Indians who identify as white, claim a specific tribe's ethnicity and are influenced most by urban culture. As another example, there may be similarity among Mexican immigrants living in different destination cities.

Culture-Bound Syndromes: Evidence for Taking Sociocultural Variation Seriously

Given that this chapter is largely conceptual, readers may wonder whether arguments developed herein have consequence in the real world. We turn to culture-bound syndromes to substantiate our arguments. To date, culture-bound syndromes mark psychiatry's best efforts to bring race, nativity, ethnicity, and cultural influences into view.

Appendix I in the most recent version of the *DSM* (*DSM-IV-TR*, American Psychiatric Association [APA], 2000) is titled "Outline for Cultural Formulation and Glossary of Culture-Bound Syndromes." It is seven pages long and contains two sections: (1) an outline for cultural formulation and (2) a glossary of culture-bound syndromes. It is likely that the soon-to-be-released DSM-V will follow suit and include a similar appendix. We argue that the appendix represents information very relevant to this chapter, and generally that this information should not be relegated to an appendix.

The first section of the appendix is meant to supplement the multiaxial diagnostic assessment and to address difficulties in applying *DSM-IV-TR* criteria in a "multicultural" environment (APA, 2000, p. 897). The clinician is reminded in this section to consider how sociocultural variation may influence assessment, social statuses, and predictors. After considering sociocultural variation, the clinician may provide a narrative of the cultural identity of the individual, cultural explanations of the individual's illness, cultural factors related to psychosocial environment and levels of functioning, cultural elements of the relationship between the individual and the clinician, and finally, an overall cultural assessment for diagnosis and care. However, we doubt narratives with such specificity are produced with any regularity.

The second section of the appendix lists and describes 25 culture-bound syndromes, which are defined as recurrent, locality-specific patterns of aberrant behavior, and troubling experiences that do not overlap with standard DSM-IV diagnosis (APA, 2000, p. 898). Culture-bound syndromes are described as illnesses best explained by unpacking sociocultural variation because they are localized, folk, diagnostic categories. Interestingly, culture-bound syndromes specific to Western or industrialized nation-states (e.g., anorexia nervosa or dissociative identity disorder) are not mentioned.

Relegation of culture-bound syndromes to an appendix exemplifies the field's current disengagement with sociocultural variation. Culture-bound syndromes (which again are not isomorphic with psychiatric disorders reported in the main body of the *DSM-IV*) signify more than a mental health assessment issue (Alarcon, 1995; Levine & Gaw, 1995); they are the fly in the ointment. If treating race, nativity, ethnicity, and cultural influences superficially results in 25 novel syndromes, then taking sociocultural variation seriously may result in hundreds of novel syndromes.

Conclusion

It may seem difficult to devote sufficient attention to how race, nativity, ethnicity, and cultural influences impact mental health status. So difficult, in fact, that one's initial inclination might be to ignore sociocultural variation altogether. We advocate, however, for small steps that move the sociology of mental health to firmer footing with regard to race, nativity, ethnic, and cultural differences. To that end, the first step is to measure simultaneously race, nativity, ethnic, and cultural influences in future community psychiatric epidemiologic surveys of mental health status (using the four survey questions in Fig. 13.2). Richness of sociocultural variation should no longer be considered part of the residual term. Instead sociologists of mental health should treat it as critically important variation.

The second step is to continue asking whether the construct of mental health status should be conceptualized and operationalized in the same way across racial, foreign-born, and ethnic groups, and continue asking whether cultural influences shape the assessment of mental health status. This presents an opportunity to simultaneously account for the impact of, and expand our knowledge about, sociocultural variation. Maximizing this opportunity may require high-quality qualitative data collections where indigenous scholars are allowed to dialogue with members of their communities. It may be difficult for mainstream sociologists to take at face-value ideas that emerge from such data collections, especially if those ideas conflict with established empirical results. But we believe doing so is necessary even if it contradicts current psychiatric nosology.

The third step would involve conducting regional, longitudinal studies of specific racial or ethnic groups who share a set of common cultural influences. In the first edition of this handbook, some contributors called for nationally representative investigations of mental health status; several community psychiatric epidemiologic surveys have since been conducted. However, those studies have tended to downplay sociocultural variation in order to analyze data that are comparable across studies and to pursue between-group comparisons. In contrast, several regional, longitudinal studies of specific population groups would inform one another if patterns in mental health status align. Researchers would be aided in this task by resisting the tendency to dichotomize mental health outcomes. Let us opt for a measurement strategy in line with human science (Mirowsky & Ross, 2002) when investigating sociocultural variation. Such a measurement strategy captures the full range of psychosocial problems individuals experience by employing continuous measures of mental health status, rather than imposing (psychiatric) cut-points indicating absence or presence of disorder.

We do not intend to paint a bleak picture regarding treatment of sociocultural variation in the sociology of mental health literature. Instead, we hope to portray important progress made concurrent with the need for intensive and further refinement. Where we stand today in the field is considerably ahead of where we were a decade ago, but the nation's demographic profile is changing very quickly. Concerted effort to study increasing diversity in the United States will generate high rewards in terms of linking lived experiences with mental health status.

In conclusion, progress in specifying links between sociocultural variation and mental health status has occurred over the past decade. But some empirical patterns uncovered have generated more questions than answers. Sociologists of mental health should not be deterred by this result. Instead we should seize the opportunity to examine more closely race, nativity, ethnicity, and cultural influences. The United States is growing increasingly diverse; by 2050 projections suggest that non-white groups will comprise approximately 47.2% of the US population (Day, 1996, http://www.census.gov/prod/1/pop/p25-1330.pdf, Table J). Demographers project the size of the Hispanic population to more than double between 2000 and 2050, whereas the Asian population is expected to increase by nearly 80% (Ortman & Guarneri, 2009, p. 3). Analysts further predict that white children will likely be in the minority by 2019 (Kim, 2011). To a great extent, international migration from Latin America and Asia will drive the rate and scope of expected changes in the racial, foreign-born, and ethnic topography of the US population (Ortman & Guarneri). Many new cultural influences will be formed and reformed. Right now is the time to adjust the sociology of health's research paradigm in anticipation of questions about generalizability and measurement invariance and diversity. Continued neglect of sociocultural variation will exponentially undermine the validity and reliability of empirical studies as well as our credibility as scholars in a discipline with a proud and established history of attending carefully to difference and inequality.

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Chapter 14
Gender and Mental Health

Sarah Rosenfield and Dawne Mouzon

Among the strongest and most consistent patterns of mental health problems are the differences between men and women.[1] Neither gender experiences worse mental health overall, but men and women experience substantially different types of problems (Avison & McAlpine, 1992; Gore, Aseltine, & Colten, 1993; Kessler, 2003; Turner & Lloyd, 1995; Rosenfield, Lennon, & White, 2005). Starting in early adolescence, women suffer more than men from internalizing disorders, which turn problematic feelings against the self in depression and anxiety. This difference means that women endure attributions of self-blame and self-reproach more often than men. Women struggle with a greater sense of loss, hopelessness, and feelings of helplessness to improve their conditions. They also live with more fears in the forms of phobias, panic attacks, and free-floating anxiety states. In contrast, men predominate in externalizing disorders that are problematic for others, including antisocial personality disorders and substance abuse or dependence. Men are more likely to have enduring personality traits that are aggressive and antisocial in character, with related problems in forming close, enduring relationships.[2] Men also are more often dependent on substances, suffer from physical problems, and experience trouble with work and family from drug or alcohol use.

The National Comorbidity Survey Replication provides the rates of these problems (Kessler, 2003). This large, nationally representative survey assesses the prevalence of mental health in the general population and is unbiased by gender differences in treatment or help-seeking. In internalizing problems, 46 million women (29%) suffer from depression over their lifetimes, compared to 28 million men (18%). In addition, 54 million women (34%) as opposed to 36 million men (23%) endure some form of anxiety during their lives (Kessler, 2003). In externalizing problems, 8 million men (5%)

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[1] We primarily use the term "mental health problems" because it is more neutral than "mental illness," which involves complex questions and debates about disease.

[2] Some researchers think that females are as aggressive as males but express it differently: while males exceed females in direct aggression that confronts others and inflicts physical harm, females are higher than males in indirect or covert aggression that harms others' relationships, esteem, or reputation. However, a current meta-analysis shows that direct aggression is the only form in which significant gender differences occur (Card, Stucky, Sawalani, & Little, 2008).

S. Rosenfield (✉)
Department of Sociology, Institute for Health, Health Care Policy, and Aging Research,
Rutgers University, Davison Hall, Douglass Campus, New Brunswick, NJ, 08901, USA
e-mail: slrosen@rci.rutgers.edu

D. Mouzon
Edward J. Bloustein School of Planning and Public Policy, Institute for Health, Health Care Policy,
and Aging Research, Rutgers University, Davison Hall, Douglass Campus, New Brunswick, NJ, USA

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experience antisocial personality disorder versus 1.5 million women (1%).[3] Also, 54 million men (35%) versus 29 million women (18%) abuse substances sometime in their lives.

Eliminating these gender disparities would have an enormous impact. If we could reduce the excess of internalizing problems among women to the rates among men, 20 million fewer women would endure depression and anxiety in their lifetimes. Reducing the excess of externalizing problems among men to the rates among women would spare 21 million men from substance abuse or antisocial personality disorder.[4] These gender differences exist in numerous countries, which suggests that decreasing the disparities would improve mental health world-wide (World Health Organization, 2006).

Given the potential benefits, it is critical to understand the origins of gender differences in mental health, especially social sources that potentially can be modified. Sociological perspectives trace these disparities to our conceptions of gender and gender practices.[5] Research suggests that definitions of masculinity and femininity have psychological consequences for men and women by producing gender differences in major risk factors, which, according to stress process and other theories, include differences in the stressors men and women experience, their coping strategies, social relationships, and personal resources and vulnerabilities (Pearlin, 2010; Thoits, 2009, 2010; Turner, 2010). This chapter concentrates on the gender differences in these areas.

We pay attention to how social groups differ in gender conceptions and practices, as clues to the roots of these disparities. Because gender differences vary by race and, to some extent, social class, we first examine gender disparities in mental health across race and class groups.[6] We then discuss how these groups define gender. Finally, we examine the explanations for gender differences in mental health that are rooted in gender conceptions and practices.

Gender Differences in Mental Health by Race and Social Class

In the United States, the gender gap in internalizing problems is much smaller for African Americans than for whites, primarily due to the low rates for African American women (Breslau et al., 2005; McGuire & Miranda, 2008; Rosenfield, Phillips, & White, 2006; Schwartz & Meyer, 2010). Rates of depression and anxiety among African American women fall below or equal those of white women (Harris, Edlund, & Larson, 2005; Kohn & Hudson, 2002; Turner & Gil, 2002; Williams, Costa, & Leavell, 2009; Williams, Takeuchi, & Adair, 1992). For example, the National Comorbidity Survey shows that sometime in their lives, 23% of white women suffer from major depression or the milder form of dysthymia compared to 16% of African American women. Although results are somewhat mixed, the relative advantage of African American women appears especially marked in higher social classes (Jackson & Mustillo, 2001; Kronenfeld, 1999; Rosenfield, 2012).

In contrast, gender differences in externalizing problems are similar across race: rates among males exceed those among females for both African Americans and whites (Adrian, 2002; Rosenfield et al., 2006; Vega, Gil, & Zimmerman, 1993; Vega, Gil, Zimmerman, & Warheit, 1993; Warheit, Vega, Khoury, Gil, & Elfenbein, 1996; Warner, Kessler, Hughes, Anthony, & Nelson, 1995). Among African

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[3] Rates of antisocial personality disorder are low in general.

[4] These numbers take into account the comorbidity of depression with anxiety, and of substance abuse/dependence with antisocial personality disorder.

[5] Gender practices refer to what men and women do, that is, how they enact masculinity and femininity.

[6] There are debates over the definition of class and related terms. Some distinguish social class from socioeconomic status as separate aspects of socioeconomic position (e.g., Muntaner, Eaton, Miech, & O'Campo, 2004; Schnittker & McLeod, 2005). Others view socioeconomic status as the hierarchical dimensions of education, income, and occupational status, while social class involves relations of production such as owner, manager, and worker (Muntaner et al., 2004). Still other conceptions of class center on authority and control in the workplace as the defining characteristics (Wright, 2000). In this chapter, we use socioeconomic status and social class interchangeably to refer to income, education, and occupational status.

Americans, 14% of men experience antisocial personality disorder or conduct disorder versus 8% of women; among whites, the corresponding rates are 19% for men and 6% for women (Rosenfield, 2012). Some research finds that African American males are somewhat higher on aggression and somewhat lower in delinquent behavior and alcohol problems than white males (Rosenfield et al., 2006). There is also evidence that race differences vary by social class (Brown, Eaton, & Sussman, 1990; Rosenfield, 2012; Williams et al., 1992). In higher classes, African American men resemble white men in rates of antisocial behavior, but in lower classes, they exceed white men's rates.

In sum, research suggests that African Americans experience fewer gender differences in internalizing problems, mainly due to low rates among women. Conceptions of gender and gender practices also differ substantially between African Americans and whites, suggesting their importance for explaining the gender differences in mental health.

Gender Conceptions and Practices

Conceptions of gender and gender practices generally include the division of labor, the power differences between men and women, and the character traits associated with males and females. In the United States, dominant conceptions of gender—those held by the groups in power (i.e., middle-class whites)—originated with the industrial revolution in the nineteenth century. Industrialization brought divisions between public and private spheres, that is, between the workplace and the home. Men began to leave home for employment, and women stayed to care for the children in the household (Connell, 1995; Flax, 1993). The productive work of the public sphere became primarily associated with males and masculinity, while the emotional work and domestic labor of the private sector became linked to females and femininity (Cohen & Huffman, 2003; Rosenfield & Smith, 2009).

Conceptions of gender and gender practices have changed since then, but the old contrasts continue to influence current conceptions and practices. This is partly because many social changes have slowed or stalled since the early or mid-1990s, including the increase in women's employment, the desegregation of occupations and fields of study in college, and the decreasing gender gap in wages (Cotter, Hermsen, & Vanneman, 2011; England, 2010). Overall, women have entered conventionally male domains such as employment and male-dominated occupations more than men have entered traditionally female domains like domestic labor and female-dominated occupations (England & Folbre, 2005).

Men retain primary responsibility for the economic support of the family, and women are still responsible for caretaking and domestic work, regardless of whether they are employed (Rosenfield & Smith, 2009). Women do two-thirds of the work at home even if they are employed for the same number of hours and earn the same salary as their husbands (Greenstein, 2000; Lennon & Rosenfield, 1995).[7] Women also have more jobs that are part-time, with lower security and wages. They are more concentrated in lower levels of management, with less direct decision-making power than men (Lennon & Limonic, 2009). Female-dominated occupations pay less than male-dominated occupations even when the same skills are required, which is a major contributor to the gender wage gap (England, 2010; England, Allison, & Wu, 2007). Women still earn 20% less than men for comparable jobs with identical requirements and qualifications (Hegewisch, Liepmann, Hayes, & Hartmann, 2010). This means that the same job in which men earn $50,000 a year pays $40,000 to women, adding up to $500,000 less for women over their lifetimes.

Dominant conceptions of gender still hold that males and females have qualitatively different characters (Connell, 1995; England, 2010). These conceptions have changed less over time than other aspects of gender such as the division of labor (Connell, 1995; England, 2010; Ridgeway, 2009). The dominant societal form of femininity—which Connell calls *emphasized femininity*—

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[7] We note that sharing domestic work is associated with lower rates of divorce.

stresses personal traits of submissiveness, nurturance, and emotional sensitivity as ideals (Connell, 1995). In contrast, dominant conceptions of masculinity—termed *hegemonic masculinity*—associates men with assertiveness, competitiveness, and independence, traits needed for success in the labor market (Connell, 1995; De Coster & Heimer, 2006; Hagan, 1991; Heimer, 1995; Heimer & De Coster, 1999; Schippers, 2007; Simon, 2002).

African American definitions of gender, especially femininity, differ in several ways (Anderson, 1999; Billingsley, 1992; Carter, Corra, & Carter, 2009; Carter, Sellers, & Squires, 2002; Connell, 1995; Duneier, 1992; Harris, Torres, & Allender, 1994; Hunter & Davis, 1992; Patterson, 1998).[8] In African American gender culture, the private sphere of the family and the public sphere of the workplace are less divided by gender. For example, African American conceptions of motherhood encompass economic provision along with caretaking, with responsibilities for children's material as well as emotional well-being (Collins, 1994). African Americans conceptualize gender as more flexible and interchangeable, with greater gender role equality (Hill & Sprague, 1999).

African American women and men have more equal power relations than whites. Because African American men disproportionately live in poverty or are unemployed or discouraged workers, there is greater economic equality between African American women and men than between white women and men (Cotter et al., 2011; Shelton & John, 1993). African American women also attain higher levels of education than African American men, providing more power relative to black men than white women relative to white men (Patterson, 1998). African American daughters are often raised to take care of themselves, to get their education and a job to support themselves, and to carry responsibilities for themselves, their family, and their communities.

Partly as a result, male–female relationships have different meanings among African Americans than among whites. For instance, marriage is not the same economic safeguard for African American women as for white women, whose options for economic security are greater within marriage than outside of it. Whites' greater economic gender inequality intensifies the power differences between the genders, placing more relative power in white men's hands (Gerstel & Gross, 1989).

Consistent with these differences, the dimensions of the self associated with femininity differ for African Americans and for whites. Autonomy and connectedness are more equally valued in African American femininity (Collins, 1994). Raised in a cultural tradition that elevates cooperation, African American males and females are encouraged to be nurturing as well as to be independent and assertive. Spiritual values underscore caring and community as well as equality (Duneier, 1992). Given these egalitarian beliefs, African American parents socialize their daughters to be strong, self-reliant, and resourceful (Collins, 1994; Hill, 2002). In addition, the high regard for the uniqueness and expression of individuals among African Americans affirms the worth of both females and males. Furthermore, parents bolster self-esteem of both their daughters and sons in the face of racism (Billingsley, 1992; Collins, 1994). Racial socialization builds deflective coping strategies that neutralize to some degree the negative assessments from the external world (Miller, 1999). Income inequality is attributed to structural rather than personal characteristics, which helps preserve the worth of the individual. African Americans often view their own cultural values—including ethics of caring, sincerity, and civility—as superior to the more competitive and materialistic values of white culture and as grounds for personal pride.

In sum, African Americans and whites construct and enact femininity in different ways. As a result, African American women describe themselves in more androgynous terms, incorporating more conventionally masculine traits than white women. Like white women, African American women endorse expressiveness, warmth, and nurturance as part of their gender ideology, but they reject the passivity, dependency, and subordination that white women more often accept as part of the feminine role (Cole & Zucker, 2007; Settles, Pratt-Hyatt, & Buchanan, 2008).

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[8] Although there are variations within race and class groups in conceptions of gender, we emphasize the differences between them in this chapter.

The differences between African American and white femininities appear to be even stronger when social class—especially education—is high. In addition to directly positive effects on mental health, greater education is associated with more egalitarian conceptions of gender, further increasing the differences in gender ideology based on race (Rosenfield, 2012). As evidence, African Americans with higher education hold more egalitarian beliefs about gender (Cotter et al., 2011). In addition, African American parents from middle-class backgrounds endorse and convey greater gender equality to their children than those with lower class backgrounds (Hill, 2002).

The more limited research suggests that masculinities also vary by race/ethnicity, but less than femininities do. As noted above, dominant conceptions associate masculinity with primary responsibilities in the public sphere, greater power in gendered relationships, and character traits of assertiveness, competitiveness, independence, and control (Coles, 2009; De Coster & Heimer, 2006). Connell refers to these hegemonic white middle-class conceptions as the culturally idealized form of masculine character (Connell, 1990, p. 83).

African American and white men share many conceptions of maleness (Harris, 1996; Hunter & Davis, 1992; Hunter & Sellers, 1998). Both define ambition, economic viability and responsibility, and an independent sense of self as core components of masculinity. In contrast to dominant masculinity, however, African American men are less conventional in gender roles than white men (Blee & Tickamyer, 1995; Hunter & Davis, 1992; Kane, 2000). Compared to white men, African American men describe themselves as more androgynous—combining masculine and feminine traits—as well as participating more often in childrearing and holding more egalitarian views of the family.

Masculinities also vary by social class (Blee & Tickamyer, 1995; Cooper, 2000; Shows & Gerstel, 2009). Oppressed groups are blocked from pathways to dominant masculine ideals of economic responsibility for the family and success in the workplace (De Coster & Heimer, 2006). "Protest masculinities" form in response to economic powerlessness as well as barriers to the jobs and education that underlie hegemonic masculinity (Connell, 1995; Connell & Messerschmidt, 2005; De Coster & Heimer, 2006). These protest masculinities often exaggerate claims to masculine position and emphasize physical power and prowess more than middle-class forms (Benson, Wooldredge, Thistlethwaite, & Fox, 2004; Levant & Richmond, 2007; Hunter & Davis, 1992; Schrock & Schwalbe, 2009). In addition, this form is particularly strong among African American males, given the additional obstacles they experience due to racism (Anderson, 1990, 1999; Connell, 1995; Majors & Billson, 1992; Morgan, 2004; Patterson, 1998).

We note that some research connects conceptions of gender to mental health problems. For example, traits associated with masculinity increase the risk of aggression, while femininity reduces the likelihood of committing aggressive acts (Reidy, Sloan, & Zeichner, 2009). As evidence, both men and women who are physically aggressive characterize themselves with masculine traits.

Gender and Stress

Given this background, we turn to explanations for the gender differences in mental health problems. As stated above, research suggests that conceptions of gender affect mental health problems through their impact on major risk factors. We focus on the gender disparities in these risk factors as explanations, including the differences between men and women in their exposure to stressors, coping strategies, social relationships, and personal resources and vulnerabilities.

Most studies on these factors compare all women to all men. Work on gender and race or gender and class is limited, and work on gender, race, and class together is nearly nonexistent. Past studies also concentrate much more on explaining women's predominance in internalizing problems than men's excess of externalizing problems. With these caveats in mind, we examine the gender differences in the exposure to stress.

Defined as a “relationship between the person and environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being,” stress is a major predictor of mental health problems (Lazarus & Folkman, 1984, p. 19). Stressors are the events or situations that produce stress. Two main theories link gender to stress. The *differential exposure hypothesis* attributes gender differences in mental health to variations in the stressors men and women experience. The *differential vulnerability hypothesis* attributes mental health differences to discrepancies in men’s and women’s reactions to stressors (Day & Livingstone, 2003). This section concentrates on the exposure to stressors.

It is unclear whether women or men experience more stress overall because they experience different types of stressors that are difficult to equate (Hatch & Dohrenwend, 2007; Meyer, Schwartz, & Frost, 2008). Women face more recent life events than men, and, consistent with their greater responsibilities for caretaking and maintaining social ties, they suffer from more stressors involving significant others such as family events and the death of friends or relatives (Kessler & McLeod, 1984; Matud, 2004; Meyer et al., 2008; Turner & Lloyd, 2004; Turner, Wheaton, & Lloyd, 1995; Umberson, Chen, House, Hopkins, & Slaten, 1996). Women also view the events that happen to them as more negative and less controllable than men (Matud, 2004).

In contrast to women, men endure more traumatic or adverse events over the course of their lives. This excess is due largely to their involvement in more types of violence (Hatch & Dohrenwend, 2007; Kessler et al., 1995; Norris, 1992; Turner & Avison, 2003; Turner & Lloyd, 1995). Compared to women, men experience more physical assaults, injury traumas, and motor vehicle and other serious accidents. They are more often mugged, threatened with a weapon, shot or stabbed, or beaten badly—as well as witnessing someone else being injured or killed. They are more likely to be victims of property crimes, such as burglary, motor vehicle theft, and larceny. Finally, men more often experience illnesses, long-term disabilities, and hospitalizations. As opposed to these multiple forms of violence, women are exposed to more specific kinds of violent events. Consistent with women’s greater fear for their safety where they live, they experience sexual abuse, sexual assault, and domestic violence much more often than men (Elliott, 2001; Hatch & Dohrenwend, 2007).

Some research links these differences in stressors to conceptions of gender and gender practices. In particular, women’s positions of power and their social roles create stressors that produce internalizing problems (Elliott, 2001; Meyer et al., 2008). For example, women’s lower earnings bring them greater financial strain, which generates anxiety and depression (Elliott). Women’s dual role occupancy—combining employment and most of the work at home—results in an overload of demands that also produces greater depression and anxiety (Bird, 1999; Greenstein, 2000; Lennon & Rosenfield, 1992, 1995; Meyer et al., 2008; Mirowsky, 1996; Mirowsky & Ross, 2003; Rosenfield, 1992).

Even when household work is shared, women do the tasks over which there is less discretion and that have to be done repeatedly, such as preparing meals, shopping, cleaning, and laundry (Lennon & Limonic, 2009). These demands produce a stronger sense of time pressure among women than men, which raises anxious and depressive feelings (Roxburgh, 2004). Finally, the stress of managing child care arrangements, which often fall apart, takes a psychological toll. Women who have trouble with such arrangements suffer high levels of distress (Ross & Mirowsky, 1992). In contrast, when child care is secure and when husbands share more types of the work at home, the level of women’s symptoms of depression and anxiety resemble the low levels in men.

Combining these studies, women’s excess of internalizing problems partly results from the time pressure of household tasks and the overload of job and family demands. These patterns are consistent with role theory, which postulates that men’s and women’s mental health problems derive from destructive aspects of their gender roles (Meyer et al., 2008).

Gender also shapes the meaning of stressors for women and men, which has implications for their mental health. In general, stressors that are especially destructive to well-being challenge individuals’ valued roles or cherished goals and ideals (Brown & Harris, 1978; Simon, 1997; Thoits, 1992). Girls’ and women’s greater orientation to maintaining social relations results in greater difficulty with interpersonal stressors. Research on adolescents links this difference to conceptions of gender. Adolescents—male or female—with greater feminine traits evaluate peer-related stress as more important than those with more masculine traits (Compas, Orosan, & Grant, 1993). In addition, women are more distressed by events that happen to significant others than men, which researchers describe as the "costs of caring" (Kessler, McLeod, & Wethington, 1985).

Given their responsibility for caretaking and kinwork, strains in the family affect the well-being of women more than that of men (di Leonardo, 1987). For example, women react more strongly to marital conflict than do men (Pearlin & Lieberman, 1979; Turner, 1994). Problems with children are also particularly stressful in women; for example, women feel more distress than men when spending time away from their young children (Milkie & Peltola, 1999). Divorce increases mental health problems for both men and women, but for different reasons (Gerstel, Riessman, & Rosenfield, 1985). Men experience greater problems because they lose social support, while women suffer from greater problems because of the loss of economic support. These reasons are tied to the different advantages of marriage for men and women arising from conceptions of gender: men gain relatively more in social ties, women in economic sustenance.

Conceptions of gender underlie these differential meanings of stressors. For example, wives suffer greater depression than husbands after experiencing family events involving children, housing, or reproductive problems—but only when married couples endorse traditional conceptions of gender. It appears that women with conventional conceptions hold themselves responsible for such events, while men tend to distance themselves (Nazroo, Edwards, & Brown, 1997).

A few studies compare gender differences in stressors across racial or ethnic groups. Compared to African American women, white women report more physical assaults, emotional abuse, and violence at the hands of current partners as well as over their lifetimes (Coker, Smith, Mckeown, & King, 2000; Franko et al., 2004). African American women experience more loss events such as the illness of a relative or friend, problems in relationships with romantic partners, and financial hardships (Franko et al., 2004).

The meaning of combining work and parent roles also varies by gender and race. White women more often see paid work and being a parent as in conflict, which contributes to their higher distress relative to their husbands and to African American women (Simon, 1995). Similar to African American women, both African American and white men's conceptions of themselves as paid workers are consistent with their conceptions of being a good parent, in which breadwinning is part of their parental role. The costs and benefits of role meanings also differ by race and gender, particularly for the work role (Simon, 1997). For example, a central cost for women is that work outside the home detracts from time spent with family, which helps explain the greater internalizing problems among married mothers compared to married fathers, especially among whites (Simon).

In summary, gender as well as race shape the stressors individuals encounter and the meaning of these stressors, which contribute to the differential mental health problems among African American and white men and women. Although more often on whites, this research provides support for the differential exposure explanation of gender differences in mental health.[9] We turn to the differential vulnerability explanation below, starting with differences between men and women in how they cope under stress.

Gender and Coping

Described as the "cognitive and behavioral efforts made in response to a threat" (Tamres, Janicki, & Helgeson, 2002, p. 3), coping strategies vary by gender. Men are more stoic in their responses to stressors, women are more expressive (Matud, 2004; Milkie & Thoits, 1993). Men try to control, accept,

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[9] There are overall race differences in stressors. For example, African Americans experience most stressors more often than whites, especially discrimination stressors (Sellers, Rowley, Chavous, Shelton, & Smith, 1997; Turner & Avison, 2003). However, these race differences are rarely differentiated by gender.

or not think about the problem; women seek social support, distract themselves, avoid the problem, and pray (Thoits, 1995). Men under stress participate more in physical activities; women more often console themselves and let their feelings out (Hänninen & Arob, 1996; Matud, 2004; Ptacek, Smith, & Dodge, 1994). Men try to reduce or divert stressors, while women involve themselves in social relationships and try to change the way they think about the situation (Copeland & Hess, 1995). Women more often cope with stressors by ruminating—focusing on internal feelings rather than on changing the situation—which helps account for women's higher rates of depression and depressive symptoms (Nolen-Hoeksema, Larson, & Grayson, 1999).

On the basis of these and other studies, many researchers conclude that men more often use problem-focused coping strategies, which change the stressor itself, while women use more emotion-focused coping, which change their perceptions about the stressor (Matud, 2004; Ptacek et al., 1994; Zwicker & DeLongis, 2010). There is some evidence that such differences originate in conceptions of masculinity and femininity. Whether male or female, adolescents who rate themselves high in masculinity employ more problem-focused strategies. Those who portray themselves as high in femininity engage more in emotion-focused coping strategies (Washburn-Ormachea, Hillman, & Sawilowsky, 2004).[10] Gender-linked coping strategies are also associated with mental health problems; for example, men who suppress emotions as a part of masculinity more often commit domestic violence (Umberson, Anderson, Williams, & Chen, 2003).

In contrast to these studies, a meta-analysis suggests that women exceed men in all types of coping strategies (Tamres et al., 2002). In this analysis of research from 1990 to 2000, women use more emotion-focused coping such as positively reappraising the stressor, wishful thinking, avoiding the problem, ruminating about the problem, positive self-talk, and seeking emotional support. In addition, women use more problem-focused coping strategies, including active attempts to change stressors, planning ways to change stressors, and seeking practical social support. Finally, women employ other strategies more often than men such as turning to religion. Of all these differences, the coping styles in which women most exceed men include emotion-focused strategies of positive self-talk, ruminating about problems, and seeking emotional support, which are consistent with the studies above and help reconcile the contrasting results to some extent (Tamres et al., 2002).

Women's greater coping efforts depend on their appraisal of stressors, however (Tamres et al., 2002). Women only exceed men in strategies such as positive reappraisal, active coping, self-blame, and avoidance when they perceive that stressors are severe. Women appraise stressors as serious more often than men, which contribute to their overall greater use of coping strategies. When women view stressors as less serious, gender differences in coping are minimal.

Gender differences in coping also depend on the type of stressor (Tamres et al., 2002). For example, under achievement stress, women use positive self-talk and seek emotional support more than men. Men and women are most similar in coping with stress in relationships, but there are still differences: women use more active coping, seeking support, and ruminating, while men more often avoid or withdraw from relationship problems.[11]

Two competing hypotheses explain differences in coping. A *situational hypothesis* claims that men and women differ in coping styles because they encounter different types of stressors. Also called *role restructuring,* this approach argues that men's and women's different positions and social roles lead them into different stressful situations that call for different coping strategies (Rosario, Shinn, Morch, & Huckabee, 1988). In contrast, a *dispositional hypothesis* holds that men and women cope differently regardless of the stressor, because of gender socialization and differences in dimensions of the self. Empirical evidence supports both of these explanations. Men and women differ in the types of

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[10] We note that both men and women see problem-focused strategies as superior (Ptacek et al., 1994).

[11] Active coping works better for problems in relationships, while avoiding or withdrawing from relationship problems brings less satisfactory outcomes (Pearlin, 1989).

stressors they experience and vary in their coping strategies depending on the stressor, which supports a *situational hypothesis.* On the other hand, women use a particular cluster of coping strategies—seeking emotional support, rumination, and positive self-talk—across a variety of stressors, which supports a *dispositional perspective* (Tamres et al., 2002).

Although little research exists on gender and race in relation to coping, a recent study examines dispositional and situational coping among African Americans (Brown, Phillips, Abdullah, Vinson, & Robertson, 2011). This research finds strong overlaps in the dispositional coping mechanisms used by African American men and women; both employ strategies of acceptance and reframing of problems most frequently no matter what the stressor. African American women also use emotional support and self-distraction, but less often than African American men. In support of a *situational hypothesis,* African American women vary their coping strategies according to the particular stressor; they use religion, emotional support, and instrumental support for general stressors, while only emotional support for stressors that are racism-related. African American men, on the other hand, use the same strategies of acceptance and active coping under both types of stressors.

In summary, research primarily on white men and women suggests that there are differences in the amount and types of coping, particularly in the strategies they use most often, which is consistent with a differential vulnerability explanation of gender differences in mental health. Research on African Americans concurs with some of these differences. However, African American men and women overlap more in their coping strategies, which fit with their greater similarity in gendered conceptions of the self.

Gender and Social Relationships

Research on social support as a coping strategy points to the general importance of social relationships for gender differences in mental health. Overall, women and men are similar in the number of casual social relationships; however, women engage in more close social ties. Women report more people in their primary networks and more satisfaction with their close relationships than men (Fuhrer & Stansfeld, 2002). These positive social relationships benefit women's mental health more than men's (Elliott, 2001). In addition, support from family and friends help buffer or reduce the effects of stress for women more so than for men (Walen & Lachman, 2000).

Given that social support protects against problems like depression, we would expect women to have lower rates of internalizing problems than men. However, women's greater social support does not decrease their depression levels. Turner (1994) addressed this contradiction by examining the negative as well as the positive sides of relationships: women's closer social ties are sources of greater problematic interactions as well as support. Negative interactions increase mental health problems more than positive interactions reduce them (Newsom, Nishishiba, Morgan, & Rook, 2003). Thus, the closer social ties of women increase their stress, which raises symptoms of depression (Haines & Hurlbert, 1992; Turner & Marino, 1994; Umberson et al., 1996).

More generally, men and women offer and look for different kinds of social support (Cancian & Oliker, 2000). Men are more likely to hide problems and to give advice, even if it is unwanted. Men are also less likely to vent than women, and are more uncomfortable with their girlfriends' or wive's emotional expressiveness (Tannen, 1996).

Social support varies by race as well as gender. African American women are more likely than white women to engage in reciprocal exchanges of transportation, child care, and household help; white women are more likely than African American women to exchange emotional support (Sarkisian & Gerstel, 2004). These findings may reflect the fact that white women are more likely than African American women to be married and to report high marital quality, such as satisfaction with marriage and positive treatment by spouses (Broman, 2005; Goodwin, 2003). African American men are less likely than white men to provide household assistance to family and non-family, and to receive household assistance from family (Roschelle, 1997). These findings suggest that, in the present time, African American families exchange similar or lower levels of support than white families. These patterns could also result from the lower marriage rates among African Americans in general (U.S. Census Bureau, 2004).

Some studies on gender and support look explicitly at African Americans. This includes research on fictive kin: individuals who are not related by blood or marriage but who are nevertheless regarded as kin members. These relationships are a hybrid of two commonly studied social relationships—family relationships and friendships—in terms of obligation, emotional rewards, and permanence. African American women have more fictive kin relationships than men (Chatters, Taylor, & Jayakody, 1994).

Other work with African Americans concerns the social support available to adolescents (Coates, 1987). Although here the size of male and female support networks does not differ. African American girls prefer a family member as a resource for both intangible and formal needs, whereas boys prefer their peers. In adulthood, African American men are also more likely than females to receive support from fellow church members when they are viewed more as friends than family (Taylor & Chatters, 1988).

Many researchers have assumed that African Americans' stronger social ties, especially in family relationships, explain their relatively good mental health. Thus far, few studies have asked whether networks and support help explain this paradox (Stack, 1974/1983). However, two recent large-scale studies test this assumption. Both find that neither friendships nor family relationships can account for the lower mental health problems among African Americans, contradicting this explanation (Kiecolt, Hughes, & Keith, 2008; Mouzon, 2010).

In sum, African American and white women tend to have more close relationships than African American and white men. These differences, however, do not account for variations in mental health patterns by race or gender. In the final discussion, we turn to differences in personal resources and vulnerabilities.

Gender and Personal Resources/Vulnerabilities

In theories of the stress process, personal resources are fundamental aspects of the self that are critical for well-being (Pearlin, 1989; Turner & Lloyd, 2004; Turner, Taylor, & Van Gundy, 2004). Stressors undermine mental health in part to the extent that they affect these self-conceptions (Brown et al., 1990; Mirowsky & Ross, 1996; Pearlin, 1989, 1999; Rosenberg, 1989). Personal resources also affect mental health by influencing individuals' interpretations of stressors (Pearlin, 1989; Thoits, 1995; Turner & Lloyd, 2004; Turner et al., 2004).

Self-esteem and mastery are considered primary personal resources. Self-esteem refers to the degree to which individuals see themselves as having worth or value; mastery involves the extent to which individuals perceive they have an impact on their social world. These aspects of the self have directly positive impacts on mental health as well as indirect effects by reducing the negative impact of stressors (Keith, 2004; Pearlin, Nguyen, Schieman, & Milkie, 2007; Pudrovska, Schieman, Pearlin, & Nguyen, 2005; Schieman, 2002; Turner & Lloyd, 2004; Turner & Roszell, 1994). For example, personal resources shape coping strategies; individuals with a greater sense of mastery and self-esteem are more persistent in problem-solving (Thoits, 2010).

Overall, women possess lower self-esteem than men (McMullin & Cairney, 2004; Robins & Trzesniewski, 2005; Thoits, 1995, 2010; Turner & Marino, 1994; Turner & Roszell, 1994). This difference emerges in early adolescence, as boys' sense of self-worth rises and girls' deteriorates. Self-esteem also has different sources for males and females (Harter, 1999). Women rely more on their connections with significant others and men more on their achievements to feel good about themselves (Banaji & Prentice, 1994; Josephs, Markus, & Tafarodi, 1992). Women also base their self-esteem on their weight and physical attractiveness more than men. Consistent with their lower self-esteem, women rate their appearance more negatively (Banaji & Prentice, 1994).

Gender differences in mastery vary with socioeconomic status and job conditions. Women's deficits in mastery result in part from less education, income, and history of employment, as well as their lower job autonomy and more routinized jobs (Cassidy & Davies, 2003; Lennon & Limonic, 2009; Schieman, 2002). For these reasons, gender differences in mastery are more pronounced among older men and women. When education, employment, and income are more similar, as they are in younger cohorts, women resemble men in their sense of control (Ross & Mirowsky, 2002).

In race comparisons, gender differences in self-esteem and mastery are greater among whites than African Americans (Twenge & Crocker, 2002). The disparity is primarily due to white women's low self-evaluations, which fall below those of African American women and men of both races (Owens & King, 2001; McLeod & Owens, 2004). These differences help to explain the elevated rates of depression and anxiety of white women relative to all other race and gender groups (Nolen-Hoeksema et al., 1999).

Other personal characteristics and dispositions contribute to gender differences in mental health problems. For example, extreme emotional reliance on other people is more common in women and helps to explain their higher rate of internalizing problems (Turner & Turner, 1999, 2005). Mattering, defined as individuals' perceptions that other people care strongly about them, is also more frequent among women (Rosenberg, 1989; Taylor & Turner, 2001; Turner & Marino, 1994; Umberson et al., 1996). At the other end of the spectrum, extreme independence is more frequent in men than women and helps account for their higher rate of externalizing behaviors (Guisinger & Blatt, 1994; Hirschfeld, Klerman, Chodoff, Korchin, & Barrett, 1976; Norasakkunkit & Kalick, 2002; Rosenfield et al., 2005; Tremblay, Pipl, Vitaro, & Dobkin, 1994; Turner & Turner, 1999).

Certain cultural schemas help explain gender, race, and class differences in mental health (Rosenfield et al., 2005, 2006). Schemas of self-salience refer to beliefs about the relative importance of the self and others in social relations. Self-salience schemas that put others' needs above one's own increase the risk of internalizing problems, while those that put one's own interests first facilitate externalizing problems (Rosenfield et al., 2005). Self-salience varies by gender, race, and class (Rosenfield, 2012). Overall, women have lower self-salience than men, which helps explain women's excess of internalizing problems and men's predominance of externalizing problems (Rosenfield et al., 2005). Among women, African Americans possess greater self-salience than whites in higher classes especially, which contributes to African American women's particularly low rates of internalizing problems in higher class groups. Among men, African Americans exceed white men in self-salience in lower classes, while white men surpass African Americans in higher class groups. These differences also help explain patterns of externalizing problems, that is, the greater rates among African American men in lower class groups and the preponderance of white men in higher social classes (Rosenfield et al., 2005, 2006; Rosenfield, 2012).

Summarizing this research, African American and white men and women differ substantially in personal resources and vulnerabilities. These disparities contribute to the differences in mental health problems not only by gender but also by gender, race, and class.

Conclusion

Research on gender and mental health suggests that gender conceptions and practices push males and females to different forms of psychopathology by increasing multiple risk factors for internalizing and externalizing problems. The amount of these risk factors makes gender differences seem socially overdetermined—that is, resulting from more causes than are necessary to produce the outcome. Men and women in different races and classes are predisposed to varying problems through the stressors they experience, the coping strategies they use, the social relationships they engage in, and the personal resources and vulnerabilities they possess. These differences also seem overdetermined insofar as the conceptions of gender underlying these risk factors are conveyed through socialization and major social institutions including schools, families, and workplaces.

The numerous sources of gender differences in mental health suggest multiple points for potential intervention, beginning with gender socialization in families and in schools from early childhood. The varying gender differences in mental health across racial/ethnic groups imply that these overall disparities can be changed. Differences by race include the smaller gender gap in psychological problems among African Americans and the apparent mental health advantage of African American women. Compared to whites, gender conceptions among African Americans reduce risk factors and, thus, the rates of gender-linked problems. To the extent that these variations result from social factors, they are amenable to and can be used as guides for change.

Different perspectives on stress help us understand the outcomes by gender and race. Both differential exposure and differential vulnerability approaches help account for the gender differences among whites. White men and women differ in stressors and their meanings as well as in coping efforts, relationships, and personal resources and vulnerabilities. However, differential vulnerability approaches account for variations by gender and race. African American men and women face more stressors than whites but respond with greater resilience from more effective coping strategies and personal resources (American Psychological Association, 2008).

The literature above also contradicts certain theories about gender and race differences in mental health. For example, the meta-analysis finding that women exceed men in most coping strategies challenges the long-standing assumption that women use more emotion-focused coping while men are more problem-focused (Matud, 2004; Ptacek et al., 1994; Zwicker & DeLongis, 2010). The failure of social relationships to explain gender and race differences in mental health contradicts the often proposed theory that African Americans' relatively good mental health is based in greater social connectedness (Mouzon, 2010; Rosenfield et al., 2006; Rudolph, 1997; Samaan, 2000).

The research examining gender by race and class underscores the importance of intersectionality for understanding the impact of gender on mental health (Kohn & Hudson, 2002). Intersectional approaches hold that different combinations of statuses have unique effects on outcomes (Jackson, 2005; Salazar & Abrams, 2005; Mullings & Schulz, 2006; Shields, 2008). Analyses of race, class, or gender separately cannot fully describe individuals' experiences (Choo & Ferree, 2010; Constantine, Alleyne, Wallace, & Franklin-Jackson, 2006; Salazar & Abrams, 2005; Shields, 2008; Syed, 2010). Since gender, race, and class operate simultaneously in all social situations, the impact of each depends on the value of the others (Constantine et al., 2006). This work fits within a growing body of research demonstrating the importance of these intersections for mental health (Anderson, 2006; Browne & Misra, 2003; Carter et al., 2002; Jackson, 2005).

Based on this work, we recommend further research. The field would benefit from more analyses of the interrelated nature of master status characteristics on mental health problems. As an example, we need work on gender and a wider range of racial/ethnic groups. Although the research is limited, some suggests that the effects of gender on mental health vary among Latinos and Asian Americans as well as African Americans and whites (Williams et al., 2009). For instance, along with white women, Asian American women and Latinas suffer from greater internalizing problems than African American women (Breslau et al., 2005, 2006; Harris et al., 2005; Kohn & Hudson, 2002; Lee, Lei, & Sue, 2001; Norasakkunkit & Kalick, 2002; Rosenfield et al., 2006). These differences are consistent with conceptions of gender across these groups. Compared to other racial and ethnic groups, Asian American women have less decision-making power in the family and less of a separate identity outside their roles in the family (Kibria, 1990; Pyke & Johnson, 2003). Girls tend to be devalued in families and feminine traits are regarded less highly than masculine characteristics. Latinos have a strongly gendered division of labor and more traditional attitudes toward gender roles than African Americans and whites (Harris & Firestone, 1998; Strong, McQuillen, & Hughey, 1994). Women characterize themselves as possessing fewer masculine traits than African American women but more than white women (Vazquez-Nuttall, Romero-Garcia, & De Leon, 1987).

In line with these conceptions, some evidence suggests that Latinos and Asian Americans also differ in risk factors for psychiatric problems. Like white women, Latinas and Asian American women possess fewer personal resources than African American women, including lower self-esteem and self-salience (Rosenfield, 2012; Twenge & Crocker, 2002). Asian Americans exhibit greater passive coping strategies than whites (Bjorck, Cuthbertson, Thurman, & Lee, 2001), while African Americans engage in more active coping (i.e., John Henryism) than whites and Latinos (Kiecolt, Hughes, & Keith, 2009). Finally, Latinos have similar or lower levels of family support exchange than non-Hispanic whites (Roschelle, 1997; Sarkisian, Gerena, & Gerstel, 2007). Asian Americans seem to depend more on family than non-Hispanic whites, who are more likely to rely on non-family members (Kim & McKenry, 1998). These studies point to the need for further research on risk factors and gender conceptions among these and other racial/ethnic groups.

In summary, while the relationship between gender and mental health in terms of origins, predictors, and symptom presentation has been clarified over the past two decades, less work focuses on the intersection of gender with race/ethnicity in relation to mental health. Even less research addresses the intersection of gender, race/ethnicity, and class (Watkins, Walker, & Griffith, 2010). Scholars understand relatively little about how class, race/ethnicity, and gender interact to produce various differences in stressors. Likewise, more work is needed on the gender, race/ethnicity, and class differences in the use of coping strategies. While gender by race/ethnic differences in social relationships are fairly established—most notably in marriage and family relationships—the mechanisms by which they produce variations in mental health problems remain unclear. Finally, other status characteristics such as sexuality and disability need to be studied in conjunction with gender, race/ethnicity, and class (Meyer et al., 2008). More generally, the multiple sources of gender differences in mental health problems need to be investigated jointly. Given the complexity of gender differences in mental health and the excess of suffering that result from internalizing and externalizing problems, it is critical to continue work on these sources and interventions.

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Part IV
Social Antecedents

Chapter 15
Social Stress in the Twenty-First Century

Blair Wheaton, Marisa Young, Shirin Montazer, and Katie Stuart-Lahman

Abbreviations

DSM	Diagnostic and Statistical Manual of Mental Disorders
GAS	General adaptation syndrome
PSS	Perceived Stress Scale
PTSD	Posttraumatic stress disorder

As the stress literature proliferates, it also differentiates. And as the stress literature differentiates, it also becomes increasingly segmented—and therefore disengaged from the core tenets of the Stress Process Model (Pearlin, Menaghan, Lieberman, & Mullan, 1981). These core tenets include the fundamental notion that different sources and types of stress are involved in a causal dynamic through time, and that the impact of one type of stress cannot really be discussed without reference to others (Wheaton, 1999).

This general message can be more specifically described in three points. First, we argue that the varieties of stress distinct from stressful life events (Holmes & Rahe, 1967) have either caught up or surpassed the attention given to life events. We demonstrate below that the growth in research on chronic, macro (contextual), and traumatic stressors collectively suggests that these stress concepts occupy independent and coequal status with life events as components of the larger stress universe (Wheaton, 1994). We speculate that a part of this shift may have followed from the nature of 9/11 as a system-wide and traumatic stressful event. Second, partly as a result of this growth, we see a progressive disaggregation of the study of stressors, seemingly reflective of the increasing complexity of dealing with the impacts of various combinations of sources of stress over time. Finally, we note that this process may result in a return to pre-Stress Process model approaches, emphasizing "one stressor at a time," but leading to misunderstandings of the ultimate role of stressors in people's lives.

Using the previous version of this chapter as a starting point (Wheaton, 1999), we review the distinctions among stress concepts and then elaborate the classification scheme for stressors (Wheaton & Montazer, 2010). We then consider the specific growth in the study of chronic, contextual, and traumatic stressors since 2000, to illustrate the growing differentiation in the study of stress.

B. Wheaton (✉) • M. Young • S. Montazer • K. Stuart-Lahman
Department of Sociology, University of Toronto, 725 Spadina Avenue, Toronto, ON, M5S 2J4, Canada
e-mail: blair.wheaton@utoronto.ca

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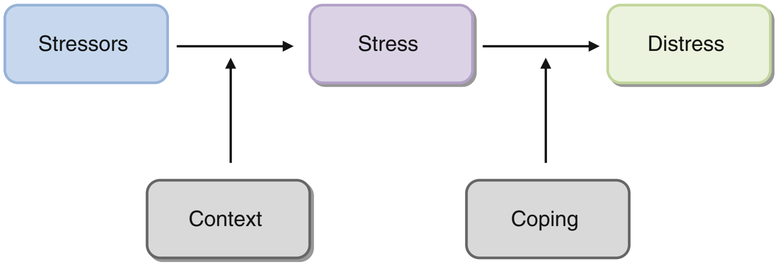

Fig. 15.1 Stressors, stress, and distress

Stressors, Stress, Distress

We begin by reviewing distinctions among three basic terms used in different ways in different literatures. Figure 15.1 represents these distinctions, in a sequence of causation including *stressors*, which *may* precipitate "*stress*," depending on the social circumstances attending the occurrence of the stressor and, therefore, its meaning, which in turn *may* precipitate *distress*, depending on the state of coping with resources when the stressor occurs. The multiple contingencies in this process suggest that many things we think of as potentially stressful turn out not to be and, even when stressful, may not translate into increased distress.

Stressors exist as a force, external to the person, which constitute a source of challenge to current functioning capacities. Stress is the more difficult term: in the biological stress model, reviewed below, it is a response of the body—a state of physiological alert—in the presence of stressors. But in other approaches (e.g., the engineering model, discussed below), stress and stressors mean the same thing. Distress refers to a manifest maladaptive response pattern in the presence of stress, such as anxiety, depression, anger, fear, or aggression. But Fig. 15.1 shows that every step in the translation of stressors into stress is conditional: the context may make the stressor less threatening (e.g., the stressor may have been experienced before), and coping resources (e.g., high levels of social support) may buffer the consequences of a stressful situation.

We define stressors more fully as *conditions of threat, challenge, demands, or structural constraints that, by the very fact of their occurrence or existence, call into question the operating integrity of the organism.* This definition implies that stressors can occur in different ways. In Fig. 15.1, context—which may be features of life history, current work or residential environments, or position in a social network—intervenes to confer the level of threat defined by the occurrence of a stressor. Broadly, stressors with lower threat are not *stressful* and therefore cannot precipitate stress. Only stressors that pose an actual threat to the stability of identity, role occupancy, social and network locations, or physical well-being have the potential to be stressful. If the context suggests threat—following the classic biological stress model—this precipitates stress or, in fact, the "stress response," a state of physiological defensive alert of the organism (Selye, 1956). If a stress response occurs, then the issue is whether coping resources are sufficient to avoid a generalized distress response. If they are, then the stress response will *not* translate into generalized states of distress. In this process, there are many things that save us: life histories that lower the threats of stressors, social contexts that train us how to deal with specific forms of stress, networks that help us cope with difficult conditions and, thus, short-circuit a generalized response.

In the *psychosocial* approach to stress, we argue that it is more important to define *stressors* than to define *stress.* Stressors have sometimes been defined as "that which produces stress" (Selye, 1956, p. 64).

The problem with this definition is that it *requires* a biological response to define something as stressful. It is not at all clear that stressors turn into distress *only* because and through a bodily stress response. Some situations people face may not be defined as a "problem" for them, but this does not mean that they will have no impact on their mental or physical health over time—only that the "problem" bypasses their consciousness.

Two Stress Models

There are actually two related versions of the stress concept, one anchored in the biological stress model of Selye (1956) and the other in the standard engineering stress model (Smith, 1987). These two approaches do not exactly say the same thing about stress, so it is important to understand how they are different, as well as the ways in which they converge.

The Biological Stress Model

Selye's biological stress model (1956) crucially involves the concept of the general adaptation syndrome (GAS) as the centerpiece of the stress process. The GAS refers to the bodily process of alarm (alert), resistance (responsive physiological adaptation to reestablish homeostasis), and, eventually, exhaustion. In this approach, the GAS becomes the arbiter of whether stress occurred, and thus events that do not precipitate this response cannot be considered stressors. The biological stress model is the predominant stress model to date. This model introduced a number of important distinctions in the process leading to distress, including the separation of stressors, as an external threat, from the coping capacity of the organism and the separation of the occurrence of stress from more general and stable behavioral response syndromes. But the model has shortcomings that indirectly limit our understanding of social stress.

First, the biological stress model has little to say about the role of context and prior experience in defining the level of threat. And yet, a stressor cannot be defined independently of the social environment in which it occurs because its meaning, and thus its level of threat, is defined by a complex configuration of life history, the social contextual location of its occurrence (e.g., work, family, community, point in history), and the prevalence of the same experience in that context. Second, stressors may have other consequences beyond health outcomes per se that are important to understanding the broader sociological consequences of their occurrence (Aneshensel, Rutter, & Lachenbruch, 1991). For example, stressors may undermine educational performance, lead to marrying earlier, or cause interruptions in labor force activity.

Finally, as noted above, the biological stress model presumptively makes the physiological stress response a necessary condition for the occurrence of stress. In fact, this assumption may be dangerous if long-term continuous low-level threat, or habituated demands, bypass the stress response, but still accumulate over time into serious physical or mental health changes. In Neil Young's perfect metaphor for this theoretical possibility, we must remember that "rust never sleeps." Importantly, it is exactly those types of stressors that function like rust—those that do not signal a definitive threat to the integrity of the organism, allow for routine responses, and yet wear down the coping capacity of the person—that could have the most important impacts on the health and mental health of populations.

Ultimately, the biological model gives minimal guidance on bounding or delimiting what social *stressors* are, or, for that matter, are not. This lack of guidance implies, we believe, that one cannot use the biological stress model exclusively as a basis for defining a universe of stressors or deriving particular measures of stressors.

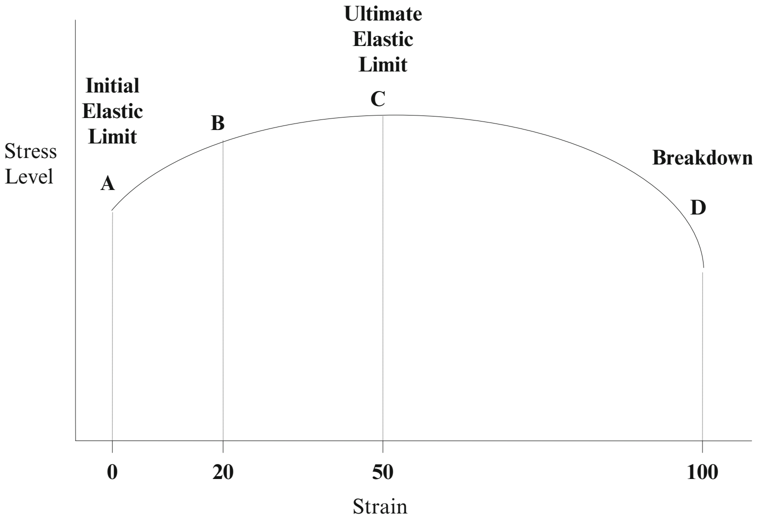

Fig. 15.2 The stress vs. strain *curve* in the engineering stress model

The Engineering Stress Model

The "original" stress model was formulated to understand the effects of external forces on the integrity of metals (Smith, 1987). This model helps us explain, for example, dramatic metallurgical failures, as in the case of the collapse of the I-35 W bridge in 2007 in St. Paul, Minnesota, and in the equally unexpected collapse of a bridge over a river on Interstate 95 in Connecticut in 1984 for similar reasons. In both cases, the main span of the bridge collapsed without the provocation of a catastrophic "event."

Breakdowns regularly occur in both the physical and social world without an observable precipitating event, and, thus, require explanations using concepts beyond the very *notion* of an event. In the case of a bridge, the breakdown may be due to the continual stress to the bridge of unobserved rusting, or the inadequacy of a design that leaves bent gusset plates in the bridge. In both cases, the slow process of decay ultimately reaches a threshold, resulting in collapse.

Figure 15.2 reproduces from Smith (1987) the curve showing the relationship between stress and strain in the engineering model. The level of stress is shown on the *Y*-axis, the level of strain on the *X*-axis. In the engineering model, stress is an external force acting against a resisting body (Smith, 1987). This model does not distinguish between the stressor and stress—both refer to an external force. Stress becomes *stressful* when the level of force exceeds limits defining structural integrity, known in the engineering model as the "elastic limit" of the material. Strain is the response state of the material (distress), technically, the state of the elongation and compression of the material. As long as the stress applied does not exceed Point A on the stress scale, the material will not exceed its initial elastic limit, and it will return to its original shape after the stress is removed. When stress exceeds A and reaches B, however, the material is able to adjust by elongation or compression (coping) and, in the process, achieve a new, greater elastic limit—it becomes stronger. The model also allows for a limit on capacity to resist, since the material has a finite ultimate elastic limit (Point C), after which the material cannot respond with adaptive adjustments, leading to fracture or breakdown (Point D, distress in the psychosocial model).

A fundamental point of the engineering model—and one that is less clear in the biological model—is that stress occurs in more than one form, sometimes as a catastrophic event, and sometimes as a continuous force. This distinction was articulated in the psychosocial stress model in the work of Pearlin and his colleagues (Pearlin, 1983; Pearlin & Schooler, 1978; Pearlin et al., 1981), Brown and his colleagues (e.g., Brown & Harris, 1978; Brown, Harris, & Bifulco, 1986), and around the same time by Wheaton (1980, 1983). The terms were different at the time, but the most general accounts emphasized the importance of what have come to be known as *chronic stressors,* rather than *event stressors*.

Life Change Events: The Model Stressor

When the word "stress" is used in research circles, the most common operational meaning for this term is a "life change event," a *discrete and observable event representing change and thus requiring some social and/or psychological adjustment on the part of the individual*—the operant word here being *event*. While the early research on important life changes included both positive and negative events, the usual approach over the last three decades has been to focus on negative events in particular, since those events have been found to be much more harmful to mental health than positive events have been found to be harmful or helpful (Ross & Mirowsky, 1979). In other words, change in and of itself is not necessarily stressful.

To give some concreteness to the kinds of life events included in this framework, they include getting fired from a job, getting a divorce, the death of a spouse or loved one, having an abortion or miscarriage, being assaulted or robbed, and ending a romantic relationship. The lists of such events used in research range from the thirty-some to well over a 100, each attempting to capture the essential set of stressful life changes (Holmes & Rahe, 1967; Dohrenwend, Askenasy, Krasnoff, & Dohrenwend, 1978).

If we look to Selye's specific examples for clues as to what stressors are, we find examples such as toxic substances, noise, extreme heat or cold, injury, and weight (Selye, 1956). While there are some agents here that qualify as "events," it is also clear that some qualify as conditions or continuous states. In fact, it has never been the case that biological stressors were restricted to the notion of an event denoting change (Hinkle, 1987). The assumption was that change is a challenge, but so is dealing with unremitting sameness. Still, the commitment to "event thinking" when it comes to stress is deep and persistent. Monroe and Roberts (1990) reflect the assumption that "events" are the *sine qua non* of stress in this passage:

> It may seem that life events are self-evident. Yet life is a continuous flow of experiences and transactions. Determining at what point ongoing experience becomes an event can be problematic (p. 211).

This quote clearly indicates that stressors can only be defined as events, but this assumption, in either of the stress models reviewed above, is wholly questionable. Fundamentally, a stressor can exist as a "state," a continuous reality, and it need not start with a clear event.

Chronic Stressors

Taking events as a point of departure, then, we can define a very different class of stressors, referred to as *chronic stressors,* that (1) do not necessarily start as an event, but develop slowly and insidiously as continuing and problematic conditions in our social environments or roles; (2) typically have a longer time course than life events, from onset to resolution; and (3) are naturally less self-limiting than life events. The distinction between event stressors and chronic stressors is meant to contrast qualitatively distinct phenomenologies of stress that, in fact, present very different types of problems as a result. A stressor may begin as an event, for example, with sudden news, but then become open-ended and protracted. In such "blended cases," it is likely that two stressors, and not one, have occurred and have been spliced together. Keeping the stressors separate allows us to distinguish between the problems of identity threat and identity adjustment, on the one hand, and the problems of continual vigilance and pressure, on the other.

Forms of Chronic Stress

Chronic stress can occur in a number of ways. Wheaton (1997) distinguishes seven kinds of problems that suggest chronic stress, including: (1) *threat*, often subjectively evaluated; (2) *demands,* levels of expectation or duty that cannot be met with current resources; (3) *structural constraints,* the lack of access to opportunity or necessary means to achieve ends; (4) *underreward*, reduced outputs from a relationship relative to inputs, compared to others with the same inputs, as in lower pay for a job than others with the same qualifications; (5) *complexity*, as in the number of independent sources of demands, or direct conflict of responsibilities across roles; (6) *uncertainty*, the desire to have resolution when an outcome is not available or imminent; and (7) *conflict*, when regularly reenacted and, thus, institutionalized in relationships, without apparent resolution.

It should be clear that the concept of chronic stress is not the same as the concept of role strain. Pearlin (1989) explicitly uses the term chronic stress to include not only role-based stressors but also what he calls "ambient stressors" that cannot be attached to any one role situation. If chronic stress is tied exclusively to occupancy in major social roles—spouse, worker, parent—then we unintentionally confound stress with role occupancy, and thus indirectly with whatever is taken for social competence. Thus, we need to include not only stress that accompanies role occupancy (e.g., work overload, marital conflict), but also role inoccupancy (e.g., not having children when you want to, not having a partner when you do want to be in a relationship) as well as a range of ambient stressors that are not role-bound (e.g., time pressure, or living in a place that is too noisy).

The Stress Universe: A Two-Way Classification

Using the notions of "event stress" and "chronic stress" as anchors, we can imagine a continuum of stress types, varying in the phenomenology of their occurrence. At one end, we have the most discrete forms of stress, those that naturally occur as events, and at the other the most chronic forms, referring to stressors that may build slowly and exist in a continuous state. In-between we have various other types of stressors that exist in the literature, and vary in their typical event versus state phenomenology. This continuum is portrayed as the X-axis in Fig. 15.3, as first stage of a larger two-way classification system of the stress universe, discussed below.

Daily Hassles

A concept that is often mistaken for chronic stress is daily hassles (Kanner, Coyne, Schaefer, & Lazarus, 1981). But the definition of daily hassles as "the irritating, frustrating, distressing demands that to some degree characterize everyday transactions with the environment" (Kanner et al., 1981, p. 3) suggests a unique form of stress, focusing on the microtransactions and interactions of daily life, not the persistent and embedded threats and demands accompanying roles and identities.

The original daily hassles scale has been the subject of some controversy. Complaints that a significant number of items are really measures of other stress concepts, including outcomes such as distress, seem all too valid (Dohrenwend, Dohrenwend, Dodson, & Shrout, 1984). For example,

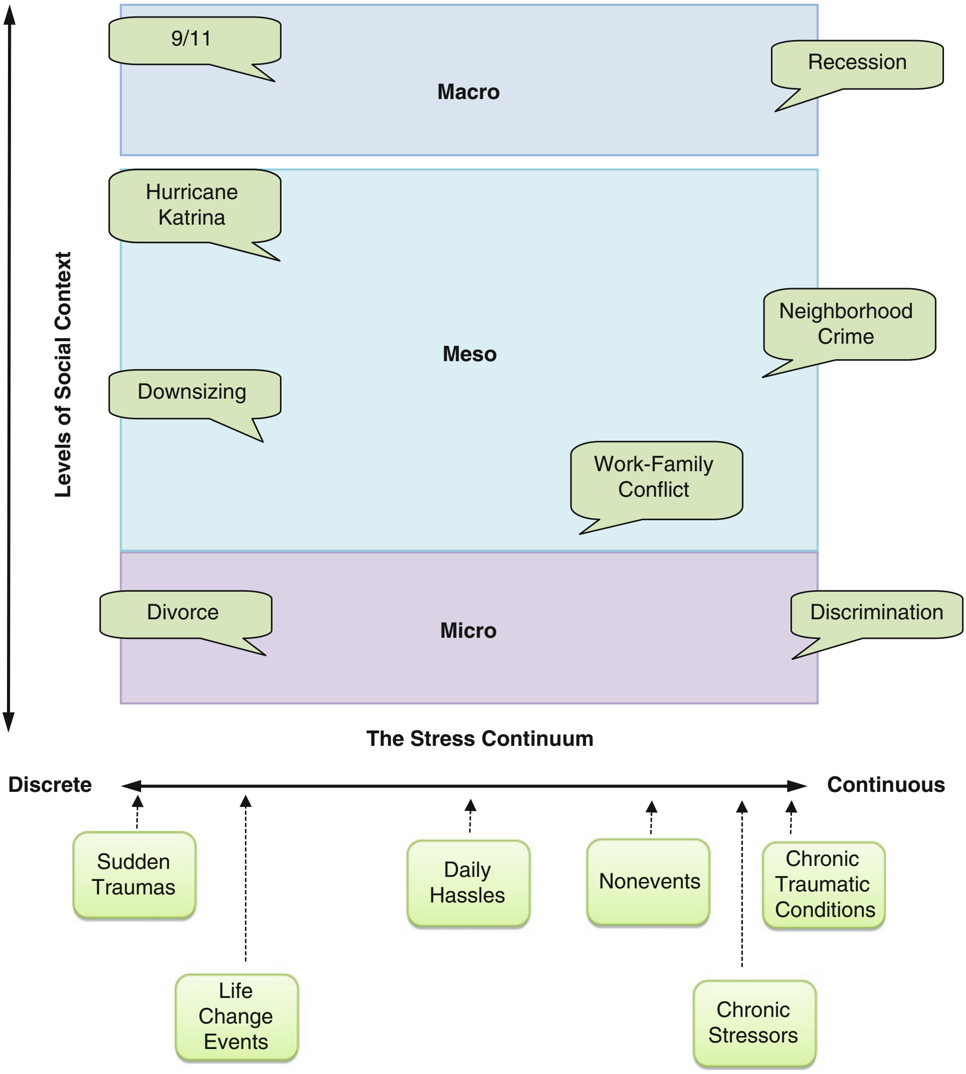

Fig. 15.3 A two-way classification of stressors

items such as “thoughts about death,” “use of alcohol,” or “being lonely” are measures of distress, some items reflect life events, such as “laid off or out of work,” while others reflect standard chronic stress items but have little to do with the stated definition of daily hassles as daily minor stresses, for example, “difficulties getting pregnant,” “overloaded with family responsibilities,” and “prejudice and discrimination from others.” The problem with this measure, then, is that it mixes different types of stress together.

Still, the concerns expressed by the *concept* of daily hassles—traffic jams, losing things, waiting in lines, grocery shopping, the weather—articulate the mundane realities of daily life that, when experienced cumulatively, could be quite stressful. But at the core, they do not reflect the more structured forms of persistent stress. Daily hassles are more usually associated with the exigencies of modern life, rather than issues such as social position and inequality, and, thus, may not directly reflect the risk of stress exposure that accompanies severe social disadvantage. The examples above suggest that daily hassles span a range of the stress continuum, and, on average, occupy a middle position as a result—a mixture of ritually repeated and more episodic and contingent microexperiences in daily life.

Nonevents

Gersten, Langner, Eisenberg, and Orzeck (1974) use arousal theory to point out that lack of change can be as stressful as change. They define a nonevent as an "event that is desired or anticipated and does not occur…[or] when its occurrence is normative for people of a certain group" (p. 169). Thus, an anticipated promotion that does not occur, or not being married by a certain age, can be considered nonevents. These examples suggest that nonevents are a form of chronic stress. But nonevents also have the additional quality of seeming like events at the same time. For example, it takes the *possibility* of a change for a "nonevent" to occur. This quality is clearest in the case of nonevents that reflect the absence of expected events with a time limit, or events with normative and expected scheduling in the life course.

Because nonevents typically stand for continuity in an undesired status, they can be placed close to the chronic (i.e., continuous) end of the stress continuum. At the same time, because nonevents require the nonoccurrence of an event that could have happened, they are not really continuous stressors either.

Traumas

Some stressors are thought to be so serious, so overwhelming in their potential for impact that they tend to be given separate status as stressors. The most applicable term for these stressors is *traumas*. The DSM-III-R manual defined a traumatic event as one "that is outside the range of usual human experience and… would be markedly distressing to almost anyone" (American Psychiatric Association, 1987, p. 250). This definition emphasizes one of the essential characteristics distinguishing traumas from the kinds of events commonly seen in life event inventories: the magnitude of the stressor. Consistent with Norris' (1992) definition of traumas as involving "violent encounters with nature, technology, or humankind" (p. 409), the latter more specific definition of traumas in DSM-IV emphasizes exposure to violence but also includes a number of nonviolent experiences as examples. In the psychosocial approach, *not* presuming that these stressors are specific to posttraumatic stress, traumatic stressors can include a potentially wide range of severe situations and events, such as war stress (Laufer, Gallops, & Frey-Wouters, 1984), natural disasters (Erickson, 1976), sexual abuse or assault (Burnam et al., 1988; Kendall-Tackett, Williams, & Finkelhor, 1993), physical violence and abuse (Bryer, Nelson, Miller, & Krol, 1987; Gelles & Conte, 1990; Kessler & Magee, 1994), parental death (McLeod, 1991; Saler & Skolnick, 1992), and the death of a child (Lehman, Wortman, & Williams, 1987).

The archetypal form of a trauma, characterized by a sudden, unanticipated, dramatic, and clearly threatening experience and exemplified by events such as a natural disaster or sexual assault, suggests that these stressors often occur as the most discrete form of stress on the stress continuum. These are represented as "sudden traumas" in Fig. 15.3. But it is also important to realize that some of the most important traumas may occur as a series of recurring and expected events that become chronic in form, with the victim living with the belief and the fear that the next event could occur at any time. These kinds of traumatic situations are represented as "chronic traumatic conditions" at the most chronic end of the stress continuum in Fig. 15.3.

Contextual Stressors

Stressors that exist at levels of social reality beyond the individual and in which the individual is embedded are referenced by a number of similar terms, including *macro stressors, system stressors* (Wheaton, 1994, 1999), and *ecological stressors* (Wheaton & Montazer, 2010). Contextual stressors are defined by exposure to threats resulting from membership in social units. Each member of the unit, by definition, is exposed at some level, although the *level* of exposure may vary by time and place. The classic treatments of stressors of this type focus on macroeconomic problems, especially as embodied by increases in the unemployment rate (Brenner, 1973; Dooley & Catalano, 1984). However, recent work points to the fact that there are many other levels of social organization to consider, such as neighborhoods, schools, families, workplaces, communities, voluntary groups, networks, regions, and even entire countries.

The discussion of combined models of contextual and individual stressors by Aneshensel and Sucoff (1996b) suggests the importance of considering contextual stressors in order to understand the impacts of individual-level stressors. Just as we could claim that the influence of life events on mental health will be misspecified and misunderstood unless we take into account more chronic forms of stress simultaneously, we emphasize that the same claim applies regarding the study of individual-level stressors if we exclude the influence of contextual stressors, especially if we expect contextual realities to shape the meaning of individual-level threats when they occur.

The Second Dimension

To accommodate the notion that stressors occur at different levels of social reality, Fig. 15.3 incorporates a second dimension (the *Y*-axis) to classify stressors by the level of social context (micro-, meso-, macrolevels) at which they occur, thus denoting the *potential* boundaries and ranges of exposure in a population. As one goes up the *Y*-axis, the generality of exposure increases. The "microlevel" is the familiar and predominant focus in stress research, differentiating exposure across individual lives. "Meso" includes all levels of social reality ranging from those levels in which we are immediately embedded, such as family, neighborhood, and workplace, to levels that are circumscribed by community or social boundaries, such as networks. Finally, "macrolevel" refers to levels described by larger political units like states, regions, and nations.

As noted above, the early study of contextual stress focused on economic recessions (Brenner, 1973; Dooley & Catalano, 1984). But there is no reason to see the macrolevel as embodied only by economic issues. Figure 15.3 shows that the types of stressors that can occur at this level can be widely varying in character: recessions are a type of chronic macro-stressor, but 9/11 was an event, with other more chronic macro-stressors following as distinct sequelae. The microlevel contains the usual individual-level stressors we study as life change events, chronic stress, traumatic stress, daily hassles, and nonevents. At the more proximal mesolevels, we see stressors that occur at the family level because they result from family-level structure, demands, and expectations, such as work-family conflict. Neighborhoods, schools, workplaces, and social networks occupy a middle-range set of social contexts. Families are embedded in neighborhoods, so we show "neighborhood crime" as an example of a chronic neighborhood stressor, occurring at a higher level of social unit roughly equal to the issue of "downsizing" as an event workplace stressor. Disasters often occur at the community or regional level, and thus we show "Hurricane Katrina" as a discrete mesolevel stressor, albeit at a more distal mesolevel. Note the distinction between 9/11 and Hurricane Katrina is really a matter of degree, and depends entirely on whether the stressor *was defined* as a national threat.

By considering stress as a multilevel issue, we access the possibility of investigating the effects of the conjunction of stressors across levels (Aneshensel & Sucoff, 1996a; Wheaton & Clarke, 2003). This may be extremely important if we discover that the meaning, and therefore effects, of individual stressors are inherently dependent on contextual stressors at higher levels of social organization.

Since the Millennium

Since the last publication of this handbook in 1999, the world of stress research has been naturally affected by major sociopolitical events, the rise of social media, the instant global-level diffusion of local events, and our resulting increasing awareness of everything about everyone. To track how stress research may have been affected in the last decade, we conducted an online search of five databases in sociology and psychology to assess the trajectory of research on different types of stressors and to detect shifts in the relative prominence of different sources of stress in the stress universe. Our search used standard terms used in abstracts, and as many reasonable variants as necessary to be fair to each type of stress, to assess the number of articles each year that mentioned each of four types of stress—event, chronic, traumatic, and contextual—between 1981, the year the stress process model was published (Pearlin et al., 1981), and 2010, the last complete available year.

The results of this search are shown in two graphs, Figs. 15.4 and 15.5. Figure 15.4 shows the rate of publication of articles including a focus on life events (dashed line) and chronic stressors (solid line). Figure 15.4 is embedded in Fig. 15.5, which is on a different scale due to the massive increases in the study of traumatic stress in recent years. We include both so that we can focus first on the relative growth trajectory for event versus chronic stress—the details of which are lost in Fig. 15.5.

It is important to remember that at the starting year in Fig. 15.4, the assumption was that life events were the *sine qua non* of stress research, the operational embodiment of the concept. But the rise of research on chronic stress has matched the rise of research on life events since that time, though it is most often assumed that life events are studied more widely. Thus, the graph suggests that the stress

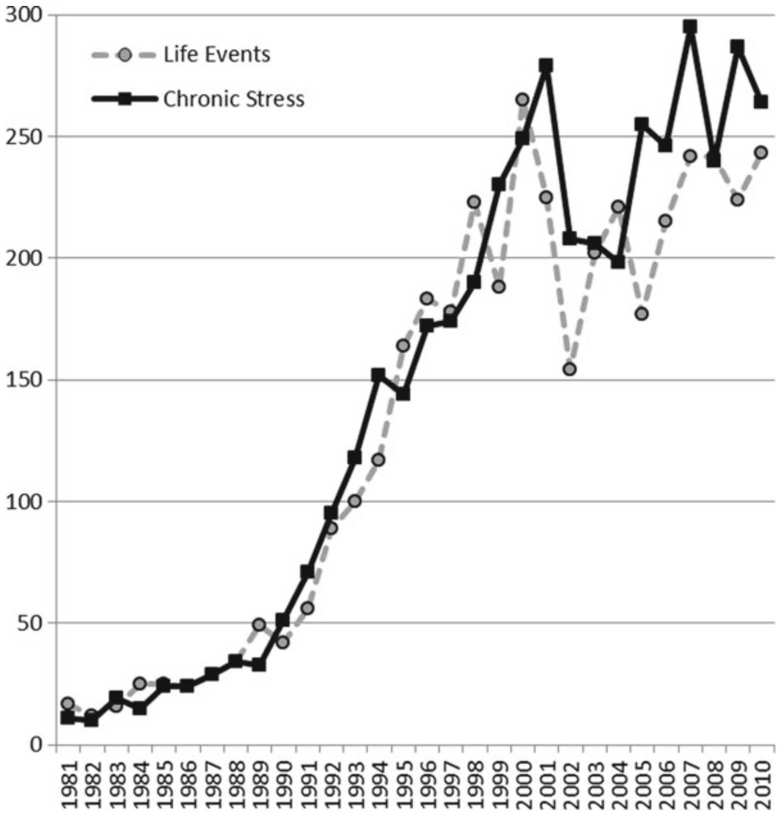

Fig. 15.4 Publications on life events and chronic stress, 1981–2010

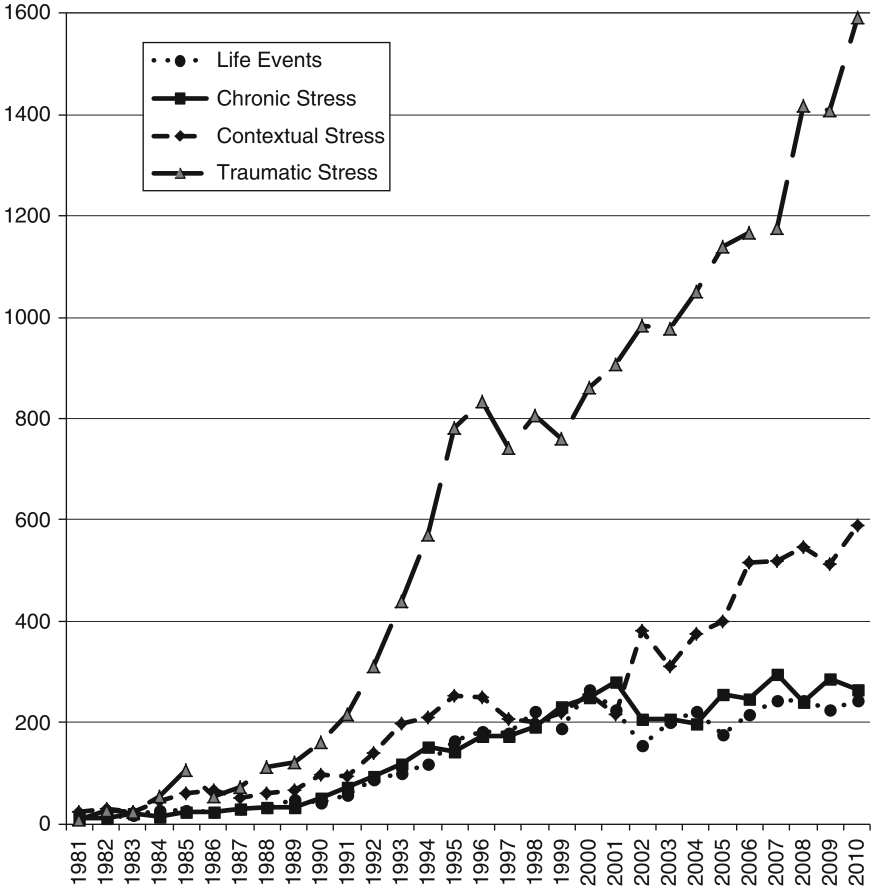

Fig. 15.5 Publications on four types of stressors, 1981–2010

process model had its impact—from that point forward, there was a coequal interest in life events and chronic ongoing forms of stress.

Note that the increase in published articles is particularly impressive in the 1990s, perhaps a reflection of the multiplicative nature of the diffusion of ideas through time. The rise of interest in both event and chronic forms of stress reflects what could be exemplified as a natural dialectic representing the concerns of psychiatric epidemiology focusing on stressors as a starting point in a disorder process, combined with the concerns emanating historically from sociology focusing on structure and stable sources of inequality.

A striking and pivotal feature of Fig. 15.4 is the decline in research on both life events and chronic stress in the years following 9/11. We interpret this as a shift in interest toward other sources of stress, signaled by the nature of 9/11, specifically, toward interest in contextual forms of stress and traumatic events (see Fig. 15.5). The decline in research on chronic stress and life events turned out to be temporary, but since that time, chronic stress has received slightly more attention than stressful life events in the literature. This may be due to the increasing awareness that stress can in fact be expressed as a chronic condition or situation that is not easily resolvable, just as it slowly became clear in the years after 9/11 that the resulting shift in the nature, location, and even definition of threat defined a new level of complexity and elusiveness of resolution.

Figure 15.5 combines the search involving event and chronic sources with two other types: traumatic and contextual stressors. Although all four sources of stress drew similar levels of attention in the 1980s, this figure makes two things dramatically clear. First, traumatic stressors emerged as the dominant source of research on stress in the early 1990s, and after an uncertain period from 1995 to 2000, increased at a faster rate than any other form of stress after 2000, resulting in close to 1,600 articles a year published on traumatic stressors by 2010. Second, research on contextual stressors was on a similar trajectory to both event and chronic stressors at the individual level until 2001, but after 9/11, increased markedly throughout the decade, resulting in a rate of publication more than double the rate for either event or chronic stressors. Looking at the trends for all stressors, Fig. 15.5 also makes clear that stress is not a twentieth century "period" concept.

The clear increase in both contextual and traumatic stressors may have followed from a redirection of interest away from event and chronic stress after 9/11, and may reflect two crucial traits represented by 9/11 as a stressor: the macrolevel at which it occurred and its unprecedented qualities as a traumatic event.

We believe that these shifts may have important consequences for stress research in general. The impressive rise of stress research continues unabated, but it also means that more articles may be focusing on specific forms of stress rather than the stress process as an overarching framework. There is no evidence of this per se, especially since Wheaton (2010) showed that research on the stress process as a whole is still increasing. However, it is also clear that the total number of articles on stress per se outpaces articles on the stress process, and, thus, it is likely that more articles are returning to a focus on specific stressors in isolation of the accompanying process—if only out of necessity. If this is the case, we must raise the possibility that these strong and increasingly independent literatures are potentially returning to the kind of misspecifications that occurred in the 1970s, where leaving out a type of stress, or an array of coping resources, or the origins of stress, led to a misimpression of the interrelationships among stressors over time and to the array of possible consequences (Aneshensel et al., 1991). It is also the case that the study of specific stressors tends to separate the issue from the larger stress framework—9/11 is 9/11, not stress, and work-family conflict is a role-specific incompatibility, and not a chronic stressor, for example.

In the sections that follow, we consider further the recent interest in both traumatic and contextual stress and the directions of these literatures, but first, we consider the explicit use of stress as a concept. Is it necessary to invoke the term stress for research to be *about* stress? And if the word stress is not used, does this promote the development of parallel but functionally equivalent terms and ideas across literatures? The one type of stress that is most prone to this problem is chronic stress, because there are so many ways *not* to refer to this concept in studying persistent difficulties and "built-in" threatening situations at work, at home, or in social networks.

Chronic Stress in the Twenty-First Century

The direction of research on chronic stress over the past decade can be summarized by three points. First, many researchers have focused on the association between chronic stress and various coping mechanisms. For example, some have considered the role of positive emotions (Grote, Bledsoe, Larkin, Lemay, & Brown, 2007; Ong, Bergeman, & Bisconti, 2004), emotional disclosure (Schüler, Job, Fröhlich, & Brandstätter, 2009), and time-of-day (i.e., morning vs. diurnal) preference (Buschkens, Graham, & Cottrell, 2010) in attenuating the deleterious effects of stressors. Second, research has placed considerable attention on the association between chronic stressors and neurological functioning, sometimes confounding the two, and/or physical functioning. Outcomes considered include cardiovascular reactivity (Chatkoff, Maier, & Klein, 2010; Kaestner, Pearson, Keene, & Geronimus, 2009), neuroendocrine activation (Kunz-Ebrecht, Kirschbaum, & Steptoe, 2004), and physical capabilities in later life (Lee & Carr, 2007). The third trend focuses on inequalities in exposure and vulnerability to chronic stressors in terms of a variety of sources, such as neighborhood context (Hill, Ross, & Angel, 2005; Wheaton & Clarke, 2003), racial discrimination (Taylor & Turner, 2002), gender (McDonough & Walters, 2001), and socioeconomic status (Mossakowski, 2008).

Importantly, very few of the articles published in the last decade draw upon stress process theory or its associated language. Approximately seven of the ~30 articles reviewed explicitly discuss the stress process model (including Hill et al., 2005; Taylor & Turner, 2002; Turner & Turner, 2005; Wheaton & Clarke, 2003). Others allude to specific terms in this model (Grote et al., 2007; House, 2002; Lee & Carr, 2007), or stress theory more generally (Kunz-Ebrecht et al., 2004; Ong et al., 2004), but not the overall framework. At the same time, chronic stress is usually not considered in isolation: most of the articles we reviewed consider chronic stressors in addition to other life-changing or traumatic events, or potential coping mechanisms, and a few consider the combined role of chronic stress with contextual stressors (Hill et al., 2005; Wheaton & Clarke, 2003).

The measurement of chronic stressors also varied considerably. Among those who measured "general chronic stress," some used Cohen, Kamarck, and Mermelstein's (1983) Perceived Stress Scale (PSS) (see Buschkens et al., 2010; Ong et al., 2004), Schulz, Schlotz, and Becker's (2004) Trier Inventory of Chronic Stress (see Kromm, Gadinger, & Schneider, 2010, for a review), and Wheaton's Chronic Stress scale (Turner & Turner, 2005; also House, 2002, mentions this in his overview). Single-item indicators of chronic stress were also used, including chronic poverty and unemployment (Mossakowski, 2008), work demands (Kunz-Ebrecht et al., 2004), and care-giving (Buschkens et al., 2010; Lee & Carr, 2007). The variability in these measures is important. Some measures refer to objectively verifiable life conditions. Other measures emphasize perception heavily and thus come close to actually measuring the outcome of stress, rather than the stressors themselves. For example, the PSS includes items such as "In the last month, how often have you felt nervous and 'stressed'?" or "In the last month, how often have you felt confident about your ability to handle your personal problems?" This is not actually a measure of exposure to stress per se, as much as a measure of possible exposure *plus* the already observed impact of stress, in other words, distress. And the sources of stress are unspecified—the measure tells us nothing about stressors. In general, chronic stress will have an evaluative component, but the specific sources of the stress still need to be specified.

Stress in Other Words

Figures 15.4 and 15.5 suggest that chronic stress has been a somewhat hidden component of the stress universe over time—it is as prevalent an issue in research as life events, if not more so, but it does not yield the specific attention given to contextual stress or traumatic stress. To a certain extent, chronic stress is the invisible glue of the stress process: it nicely describes the stressful situations that proceed from the sudden onset of major life events that are not resolved, it allows for the notion of insidious threats or slowly increasing burden that become institutionalized without requiring "event" thinking or phenomenology, and it suggests a method for framing and, therefore, understanding the "meaning" of stressful events when they occur (Wheaton, 1990). But it is exactly the elusiveness of chronic stress and its continuous character that prevents it from predominating more clearly in the world of stress research. Despite this, some have demonstrated that it tends to have the largest impacts on various stress outcomes (Turner, Wheaton, & Lloyd, 1995; Wheaton & Montazer, 2010).

Chronic stress might have a much more ubiquitous presence in the study of stress if we stop requiring use of the word "stress" as a descriptor. In fact, there is wide interest in the *implicit* study of stress in related literatures, which exist independently of stress research but articulate most of the meanings of stress. If we enlarge the stress universe to include the implicit study of stress, that is, "stress in other words," we would have a much more inclusive stress universe, one that looks quite different from the current explicit stress universe.

Work-Family Conflict

Clearly, the concept of work-family conflict is at the center of a large and growing literature, and it is an increasing focus of media commentary in an age of technological diffusion of work into family time. Extensive research documents the deleterious health outcomes of both work-to-family and family-to-work conflict (Allen, Herst, Bruck, & Sutton, 2000; see Bellavia & Frone, 2005, for a review; Glavin, Schieman, & Reid, 2011). Work-to-family and family-to-work conflicts have been broadly defined by scholars as some combination of time-based, strain-based, or behavioral-based conflict across work and family role sets (Greenhaus & Beutell, 1985). In both variants, there is a clear indication that work-family conflict is an ideal example of a chronic stressor—it typically begins due to the progressive diffusion of responsibilities or expectations in one or both domains over time, it becomes stressful when it exceeds a given elastic limit of typical demand for the individual, and it is enacted and reenacted by the built-in definitions of the role responsibilities in each domain.

Because work-family conflict is typically a persistent reality in people's lives, and it is structured by the nature of role commitments, one *could* legitimately refer to it as a chronic stressor and thereby gain access to the stress literature as a reference point. Young and Wheaton (2011) argue that the current theories framing the work-family conflict literature—such as "demands-resource" models and "border/boundary theories" (Clark, 2000; Nippert-Eng, 1996)—are often limited in scope because they cite the same definitional components as used in the stress process literature but do not take advantage of the existing canon on how stressors are defined, produced, and managed. For example, Wheaton's (1999) prior definitions of chronic stress make clear that it does have both objective and subjective referents, that is, it refers to the coexistence of an objective condition and the subjective evaluation of threat or demand. Given this distinction, for example, we can begin to theorize work-family conflict as including a subjective component, over and above actual levels of demands and conflict across roles, whereas the literature focuses on it as an objective reality only (see Hochschild & Machung, 1989; Nippert-Eng, 1996, for exceptions).

In addition, by defining work-family conflict explicitly as a chronic stressor, we enfranchise a considerable literature on coping with chronic stress. This literature goes beyond the consideration of objective resources involved in the coping process, and includes emotional social support and persistent beliefs in mastery. We also become more interested, through attention to the stress process, in the origins of work-family conflict in other stressors and the social positions of individuals experiencing work-family conflict.

Discrimination

The concept of discrimination represents a transitional example of stress "in other words": it has been the focus of independent literatures on gender, race/ethnicity, and work, for example, but it also has become more explicitly embedded in the stress literature in recent years, especially with regard to the health consequences of discrimination (Taylor & Turner, 2002; Mossakowski, 2008; Williams, Neighbors, & Jackson, 2003). While work on discrimination does vary widely in its incorporation and application of stress concepts, it is clear that a basic theoretical framework for arguing health consequences proceeds from considering a stress framework. The emphasis in this literature is on the experience of *perceived* discrimination, which hypothetically can occur both as an event and as a chronic reality. In fact, the emphasis is on discrimination as a chronic stressor, either as a continuing *possibility* in daily experience or as an endemic structural reality. Although discrimination events are often cited, these events are not random, and may be better conceptualized as the manifest surface of an underlying continuing presence and, therefore, expectation.

What is the gain from the link between discrimination and the experience of stress? Research now emphasizes the specificity of dealing with chronic stress via *stable* resources in coping. This could mean, for example, the individual's role situation, or the in-place social network. The issue here is a phenomenological matching of how the stressor occurs and the kind of coping that has a chance of success: continuous sources of stress suggest the importance of immediately accessible and stable sources of coping (Williams et al., 2003).

Electronic Connectedness

There is growing interest in the possibility that electronic connectedness has the potential to be stressful. There is more popular commentary on this point than actual research, but at least one study (Sachoff, 2011) found that "Facebook stress" exists under some circumstances. An article by Hair, Ramsay, and Renaud (2008) considers the association between ubiquitous connectivity and work-related stress. Theorizing about the potentially stressful effects of connectedness is more common (Kraut et al., 1998), and in the reasoning used we see some of the standard characteristics of chronic stress. First, we see speculation about the lack of control over privacy and the unintended spread of personal information. The issue here is less about giving permissions to others to access your personal information as it is having access to too much information *about* others. Goffman (1959) pointed out long ago that social life requires a distinction between "front stage" and "back stage." The consequences of the absence of a back stage may be the viral communication of stress, where one person's stress becomes another's. Second, the structure of connectedness puts pressure on relationships, pressures that ride through cycles of ins and outs with various others in an electronic social network, and reflect exposures to rejection, disloyalty, and lying in others that otherwise would not occur. For example, one website cites a law firm study of over 5,000 divorce cases, which claims that 20% of all current divorce cases cite Facebook as an issue (Lawyers.com, 2011). Third, there is the issue of work-to-family spillover as indicated by constant dependence on and availability to the modern-day Blackberry©–or its equivalent. The spread of anytime/anyplace work demands multiplies the instances of conflict across roles, and the root stressor here is connectedness. If one is captive to this problem, it is also very difficult to resolve, since it is defined by the nature of one's job.

There are at least three potential benefits here of an explicit link between the study of technological change and stress. First, by defining electronic connectedness as a potential chronic stressor, researchers can consider the role of technology as a continuous stressor that may exacerbate the effects of other stressors, such as work pressures or interpersonal conflict (Hair et al., 2008). Second, such a definition speaks to the conceptualization of technological advances in communication as a "double-edged sword": while considered a "stressor" for some, it may function as a "resource" for others (contingent upon age and work-defined communication expectations, for example). Third, the language of stress helps us understand how technology also impacts individuals at a *macro*level, where additional pressure is placed on individuals because of the sheer volume of information, or excessive opportunities for social communication (i.e., Facebook, Twitter, e-mail, texting, etc.).

These three examples of stress "in other words" suggest many more examples are possible, but the basic point is clear. Explicit embeddedness in a stress framework gives access to a readily available explanation for consequences, provides a model for thinking about contingencies that determine differential vulnerability and the shaping of meaning due to coexisting or prior stress exposures, and promotes an interest in the social distribution of exposures.

Contextual Stress: The Stress World Moves with the Larger World

We have presented some speculative evidence that research on stress after 9/11 shifted generally toward more macro forms of stress and more severe forms of stress experience. The events of 9/11 can be considered as a "sensitizing" historical event, one which drew our attention to new possibilities and unanticipated sources of threat.

Compared to the earlier work on economic downturns, recent research on contextual stress has focused more on natural and man-made disasters and mass violence. This is likely due to the density of macroevents of this type over the last 15 years. Recent studies focus on *natural disasters*, such as Hurricane Katrina (e.g., DeSalvo et al., 2007; Glass, Flory, Hankin, Kloos, & Turecki, 2009; Kessler et al., 2008; Pina et al., 2008), Hurricane Gustav (Harville et al., 2011), and the 2004 Tsunami in Southern Thailand (e.g., Thienkrua et al., 2006) and India (e.g., Kumar et al., 2007). Research on "unnatural disasters" has focused on failures of technology, including the Chernobyl disaster (Havenaar et al., 1996) and mass violence—such as the Oklahoma City Bombings (North et al., 1999), school shootings (Fallahi & Lesik, 2009), and of course, 9/11 (e.g., DiGrande, Neria, Brackbill, Pulliam, & Galea, 2011; Galea, Ahern, Resnick, & Vlahov, 2006; Knudsen, Roman, Johnson, & Ducharme, 2005; Richman, Cloninger, & Rospenda, 2008; Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2011; Silver et al., 2006).

Because we are still learning what we can learn from these events, there are many opportunities in this research to expand what we know about stress processes. Much of this research is focused on the amelioration of the consequences of these events. For example, Silver et al. (2006) note that to fully understand how macro-traumatic events affect human functioning, it is important "to consider the unique roles of individual differences (e.g., coping responses, previous experience with trauma), and social interactions (e.g., social constraints, conflict, social support) in mediating the relations between specific events and subsequent outcomes" (p. 65). However, just as often, studies that examine the effect of a contextual stressor on a given population treat the contextual stressor as if it would have the same effect on all individuals involved (e.g., Kessler et al., 2008; Knudsen et al., 2005; Kumar et al., 2007). The most consistent component of the stress process present in the majority of studies is the proliferation of stress—as measured by stressors caused by the macroevent (Pearlin, Aneshensel, & LeBlanc, 1997). In general, mental health outcomes are worse among those individuals exposed to secondary stressors caused by the contextual event, such as death of a loved one due to the event, injury due to the event, or loss of livelihood. Indeed, according to Norris (2006), persistent disaster specific psychopathology appears to be rare in absence of severe, *personal* trauma or loss.

What is most often missing in this literature is the influence of life course patterns and exposures on the meaning and therefore impact of a macroevent (Wheaton & Montazer, 2010). This issue is beginning to surface in the most recent studies which consider the role of coping resources and pre-event factors on the relationship between the contextual stressor and mental health outcomes (e.g., Galea et al., 2006; Glass et al., 2009; Harville et al., 2011; Silver et al., 2006, 2011). While traumatic event stressors experienced prior to a contextual event are associated with a higher likelihood of mental health problems (see e.g., Galea et al., 2006; Silver et al., 2006), support mechanisms such as extra-familial support (Pina et al., 2008) and social support (Galea et al., 2006) are protective. These findings suggest that the stress process model *is* both useful and relevant in understanding the impacts of macroevents.

We do not want to imply that most of the research on contextual stress focuses only on macroevents. Research on neighborhood, school, and workplaces at the mesolevel all point to the ubiquitous importance of contextual stress beyond what is experienced individually. Research on neighborhoods is still an expanding topic, based on expectations of the importance of structural disadvantage (Schieman, Pearlin, & Meersman, 2006; Hill et al., 2005; Latkin & Curry, 2003; Ross & Mirowsky, 2001; Boardman, Finch, Ellison, Williams, & Jackson, 2001) but also resource differences (O'Campo, Xue, Wang, & Caughy, 1997) and compositional features, which imply differences in the availability of coping resources in the face of individual-level stressors (Young & Wheaton, 2011).

Traumatic Stressors: History and the Expansion of the Stress Universe

Attention to a form of stress begets more attention. Figure 15.5 makes clear that traumatic stressors now draw the most attention in the stress universe. There are multiple reasons for this attention. The increase in publications focusing on traumas is especially notable after 1990, and after a plateau, doubles in the years after 9/11. Given the plateau, and the timing, it is likely that there are different explanations for the trend seen in the 1990s versus the trend seen in the 2000s.

Prior to the millennium, three historically related trends should be mentioned. First, there already was a strong focus on this type of stress in the psychiatric literature in the 1980s. Second, the idea that many disorders may have an early age of first onset was suggested by community and national epidemiological studies in the 1980s and 1990s (Robins et al., 1984; Kessler et al., 1994) and thus redirected attention to the early stages of life and the importance of childhood and adolescent experience. Third, the development and importance of the life course perspective in sociology (Elder, George, & Shanahan, 1996) made possible a specifically sociological perspective in explaining linked events in lives without reference necessarily to psychodynamic and/or developmental approaches in psychology. In sum, the prevalent foci in stress research on *current and/or recent* stressors proved both to be unnecessary and misleading, especially considering the fact that more remote traumatic stressors are likely to have indirect effects on mental health through the change in risk of more recent stressors (Kessler & Magee, 1994; Wheaton, 1994). An important consequence of this approach is a concern with stress "starting points" in the long-term devolution of functioning.

The issues raised by 9/11 likely added to the attention given to traumatic events in particular, as this was a sudden and unprecedented event that was traumatizing in part because it challenged fundamental American beliefs and assumptions—in other words, challenged the core of American identity. In addition, the series of macroevents starting at the time of Chernobyl and continuing recently with Virginia Tech, tsunamis leading to a myriad of secondary stressors, mass shootings of children in Norway, and the *density* in the rate of these macroevents over the last 15 years, draws our attention collectively to catastrophic and traumatic change in people's lives. There is a sense that all of this misfortune acts like an advertisement for the power of stressful experience—but also for resilience.

Public discourse and political interest groups also factor into attention paid to specific forms of traumatic stress, such as sexual abuse or domestic violence involving children. Where social movements create pressure for further research, it is often based on the assumption that the prevalence of the problem is underestimated (Koss, 1992), and that there is more widespread victimization than was previously assumed. This often leads to expansions of the operational concepts involved in the measurement of traumatic stress, higher prevalence, and—up to a point—greater public concern directed at the problem (Wheaton, 2010). Together, these separate inputs may have each added to the specific attention given to traumatic stressors in recent years.

Research over the last 10 years tends to focus on the obvious candidates—sexual abuse (Ullman, Najdowski, & Filipas, 2009), terrorist attacks (Braun-Lewensohn, Celestin-Westreich, Celestin, Verté, & Ponjaert-Kristoffersen, 2009; Chemtob, Nomura, Josephson, Adams, & Sederer, 2009; Southwick & Charney, 2004), domestic violence (Brown, Hill, & Lambert 2005; Graham-Bermann, Howell, Miller, Kwek, & Lilly, 2010), and living in a war zone (Elbert et al., 2009; Overland, 2011). This diverse list shares two crucial characteristics—the magnitude of the threat faced and the difficulty of resolving the threat. What is clear in recent studies is a very epidemiological focus, with attention to PTSD as the primary outcome. A minority of studies do consider other outcomes, especially depression (O'Donnell, Creamer, & Pattison, 2004). Another minority of studies considers how coping with resources matter in dealing with traumatic events, but not ongoing traumatic situations (McNally, 2003; Hyman, Gold, & Cott, 2003). Still, the focus on individual forms of trauma results in even less attention to the role of adjunct or prior stressors, or stress proliferation through lives (with Ullman et al., 2009 as an exception). Ironically, it is the very strength and independence of the different trauma literatures that has led to the development of parallel literatures with little horizontal referencing or influence.

The Interdependence of Multiple Stressors

One of the ironies of the successes of the stress literature, and its growth and differentiation, is the accompanying difficulty in maintaining the "big picture." Studying stressors one-by-one has its benefits, for example, the seeming clarity afforded by the specificity of the case. But it has its costs as well. If the joint impact of different types of stressors is omitted when research is focusing on individual stressors, then all sorts of opportunities for misspecification and misleading findings can run through these literatures. If, for example, attendant chronic stressors multiply the impact of sexual trauma, then the true level of risk is underestimated in a significant portion of the population. If a history of unrelated traumas still provides generalized training for dealing with later very difficult situations, then we also miss the fact that for some portion of the population, these later-life traumas are not as problematic or threatening as we assume. If we start with the stressor as the focal issue, but leave out the social epidemiology of that stressor and thus its social origins, we either imply a randomness in the occurrence of the stressor (wrongly) or we imply individual characterological rather than social origins. In other words, we abandon some of the core lessons of the stress process perspective.

Conclusions

This chapter makes clear that the world of stress research is still flourishing and growing more than a quarter century after the publication of *The Stress Process* (Pearlin et al., 1981), more than 40 years after the publication of the Holmes-Rahe Life Events scale (1967), and more than a half century beyond the Midtown Manhattan study (Langner & Michael, 1963). With this success, we also see potential problems because of the growing independence of the study of different sources of stress. And yet, we know there are multiple demonstrations in the literature that the assessment of the total impact of stress depends on the simultaneous consideration of multiple key sources of stress, and over significant periods of time in lives.

The growth of stress research also means that it has become an almost ritual explanation of an array of problems, often invoked when other explanations fail and at the same time inviting criticism about its status as a residual explanation (Wheaton, 1996). We include a discussion of "stress in other words" to indicate that the discussion of stress concepts extends in a number of directions beyond the original stress literature per se, but, unfortunately, does not always make use of that literature. Stress is neither ubiquitous nor rare; it is usually the experience of a minority, but nevertheless a sizable minority. Despite the seemingly universal self-labeling of lives as stressful, that viewpoint actually fails to see stress as important and specific—and, therefore, resolvable.

Still Needed: The Road to Biological Pathways

Little has been said in this chapter about the rising recent interest in connecting exposures to social stress to ensuing biological responses, both short term and long term. The issue here is the biological processes precipitated by real-world exposures in naturalistic settings, not controlled laboratory conditions. The issue of *causation* here is a subtle source of noise across literatures. If the biological response is evidence of stress, and a necessary condition of its occurrence, then we have less interest in the source of stress. As Selye (1956) pointed out, stress thus becomes anything that leads to that response.

If we allow that indirect causation *is* causation—as is the case with most forms of social causation of illness—then we still need to specify the linkages and conditions between exposures to specific and aggregate configurations of stressors and biological responses. This work is in fact a welcome and growing focus, but primarily as an *explanation* of how social stress may work, and not to replace its role with a later biological link in the chain. As noted earlier, we need to remember that habituation and sublimation, each of which may signal the absence of a biological response, do not imply the absence of impact on health in the long run.

Recent Directions, Future Directions

In the 1999 version of this chapter, five themes were identified as recent directions in stress research. These were: (1) *contextual specification* of stressfulness of events and chronic conditions; (2) *life course approaches* to the linkages, sequencing, and timing of stress and coping over lives; (3) *disaggregation* of stressors and the study of interdependence across stress domains; (4) study of the *social origins* of stress; and (5) concern with the complete specification of the *multiple outcomes* of stress.

If we now reassess what has evolved since the millennium in the study of stress, we note that much of what was noted in 1999 has continued and expanded—but with shifts in emphasis. The study of multiple outcomes has become a standard expectation in stress research, but the substantive foci of stress consequences has now grown far beyond health or mental health concerns (Aneshensel, 1996), including lifetime achievements, role functioning, and role exits and entries (Clarke & Wheaton, 2005; Wheaton, 2010).

And it is clear that the expansion of the contextual specification of stress has also continued as expected. The current state of the art allows for various approaches, but the emerging emphasis is on the joint impacts of individual-level stressors and contexts measured separately, usually involving the hypothesis that social context modifies the impact of specific individual-level stressors.

What was not necessarily anticipated in 1999 was the degree to which the disaggregation of stressors into individual cases would emerge as the dominant approach. This has important implications for understanding the overall state of the stress process. Wheaton (1999) notes that "the primary problem with focusing on individual stressors is the tendency to see the stressor as presumptively unique, and treat it as if it is operating in a social vacuum" (p. 294). The additional growth of literatures that amount to "stress in other words" suggests further fracturing of the stress literature. Even though the study of work-family conflict reflects a connection between work and family stress, ironically, this literature exists separately of literatures on work stress, marital stress, and domestic burden per se. The fact is that the effects of stressors in each role depend crucially on the state of stressors in the other role, as has been made clear in a series of studies reported in Eckenrode and Gore (1990).

On the other hand, what has *not* developed as much as expected is the application of the life course framework to the study of stress and the continued expansion of the focus on social origins. Each of these issues is still prominent in stress research, but what has grown in particular are articles that do *not* incorporate life course or origin issues. This is unfortunate because the life course perspective has played a central role in expanding the timeframes for stress impacts across stages of life. It is important to remember that the historical frame for this role is the earlier findings suggesting that only recent or current event stressors were relevant in predicting current mental health (Dohrenwend & Dohrenwend, 1969; Eaton, 1978).

The life course approach can be thought of as informing the issue of contextual specification. The pattern of past stress exposures, and their timing and sequencing, tell us how much current stressors even matter as stressors. If we leave out the past in stress research, we risk rendering some current stressors as equally problematic to all, when they are not. Wheaton (1990) argues that role histories in general will lead to contrasting implications of life changes and transitions—sometimes leading to negative downturns in mental health, because a beneficial role is lost, and other times leading to improvements in mental health, because of escape from a stressful situation. Thus, even issues such as "divorce" or "job loss" cannot be defined as stressful without reference to life history.

If there is a relative loss of attention given to social origins, it may be due to the corresponding rise in importance of traumatic and contextual stressors. In many cases, contextual stressors have causes that are more difficult to specify and assess, and the focus is often on the reduction of widespread damage more than how they happened. Similarly, traumatic events often direct attention to consequences rather than causes, because of the severity of the presumed impact. And yet, it is important to trace the origins of even traumatic stressors, perhaps especially traumatic stressors. We know across a number of literatures that there are patterns to the risk of abuse and violence, but the focus tends to be on proximal, rather than distal causation. There is still much to be done to locate the origins of risk for traumatic events in various forms of social inequality. Gender looms large in many (but not all) of these issues, and the feminist literature gives us plenty of leads that need to be incorporated into stress research—such as studies of the risk factors for perpetration of sexual abuse (Koss, 1988, 1992)—but we have not yet systematically incorporated these leads into our research beyond the broadest patterns (Turner & Lloyd, 1995).

Final Thoughts

At this point, we might ask these questions: Has the concept of stress become so differentiated that the boundaries do not matter? Is there still a reason to invoke stress explicitly and to embed this concept in the larger stress process?

The fact is that even if we choose not to use the term "stress" for what we study, we continue to be interested in things that are *stressful*. As such, we will want to preselect things to focus on as possible stressors. Guidance in this, and a conceptual framework, surely help in avoiding confusion about the roles of variables in an overall model for health—or anything we try to understand as a consequence of stress. Considerable confusion in the *measurement* of stress proceeds from confusion about the *concept* of stress. If we believe that stress is a biological response, for example, we will develop scales to measure this response, but the stressors involved will remain invisible.

A fundamental mistake is made when we try to decide a priori whether a stressor is actually stressful. We want to measure the context and coping capacities that are brought to bear on the stressor of interest and thus *discover* whether it is stressful. Ideally, stress should be measured as a continuous variable, thus avoiding categorical representations of stress that in turn require the imposition of a threshold to define "presence." The idea that we should impose or predefine a threshold of stressfulness has led to problems and confusion in the stress literature. The important point is not to presume, but to find out. Thus, it is essential that we give more attention to the elements of context and coping that in sum define the current stress potential of an event or chronically stressful situation.

We suggest three other reasons why it may be advisable to retain the term "stress." First, there are important advantages of working from a conceptual framework such as the stress process. One of the most important is that the potential roles of variables in an overall explanation are made clear by a conceptual framework. Furthermore, the articulation of outstanding issues depends on these explicit conceptual roles. Second, the attempt to differentiate stress concepts while retaining the overarching notion of a stress domain allows us to investigate the interrelationships among stressors, either in terms of stress proliferation, stress containment, or desensitization or sensitization processes describing the combination of effects of particular sequences of stressors. Third, avoidance of the term stress as a "place holder" for the various concepts used in this chapter will have the unintended secondary consequence of delegitimizing socio-environmental explanations of mental health. This is because issues that are now clearly representative of the social causation argument in the stress model become less clearly articulated as alternatives to biological or genetic causation. It is actually fortunate, for example, that some stressors are truly random, or cannot possibly be anticipated or predicted, because it provides an elegant argument for social causation that cannot be easily understood as the unfolding of biological or genetic givens. In other words, social stress remains one of the most important alternative hypotheses to biological models of mental disorders.

Daunting life changes, chronic intractable problems, those irritating hassles tomorrow, the construction of a "big box" chain store in your neighborhood, the drop in the worth of your dollar, not getting that job you wanted, your community losing jobs, the loss of union rights in public professions at the state level, the threat of violence when you get home tonight—they are all *stressors*.

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Chapter 16

Current Issues and Future Directions in Research into the Stress Process

Leonard I. Pearlin and Alex Bierman

Over the past several decades, the sociological study of stress has amassed a bountiful body of research that has appreciably added to our understanding of the social and economic underpinnings of mental health and mental health disparities in society. Aided by the stress process paradigm, light has been shed on some of the functions and dysfunctions of the surrounding society and its institutions. But despite the productive record it has established, research into stress and mental health remains a work in progress. Therefore, like other areas of inquiry, it is useful to pause occasionally and appraise what has been learned, to question assumptions and practices, and to ponder directions that might be fruitfully followed in the future. This chapter can be considered such a pause. It focuses on some of the thinking underlying the stress process perspective, a conceptual paradigm that, since it was introduced over 30 years ago (Pearlin, Menaghan, Lieberman, & Mullan, 1981), has had a major role in providing the theoretical foundations supporting the advancement of the sociological study of stress and mental health. A brief overview of the stress process and its conceptual components will set the stage for much of what follows in this chapter.

The perspectives and understanding of the stress process grew out of an analysis of the effects of involuntary job loss on depression (Pearlin et al., 1981). Drawing on data from a panel study, job loss was found to be related to an elevation in depression. However, it was further found that this relationship was largely indirect. That is, the event of job loss led to other more durable adversities, including financial and marital strain. These secondary stressors, as they came to be called, in large measure accounted for the relationship of job loss to increases in the level of depression. The impact of the stressors on depression, moreover, was found to depend significantly on the functions of personal and social resources, such as social support, mastery, and self-esteem. Whereas the positive presence of these resources has the capacity to mute the impact of stressors on depression, it is also the case that when the resources are diminished by exposure to stressors, depression is likely to increase. Thus, these resources were shown to be capable of both mediating and moderating the effects of stressors on depression. The core components of this early analysis—stressors, mediators/moderators, and mental health outcomes—continue to be the major conceptual underpinnings of the stress process perspective, although the perspective has gone through considerable expansion and elaboration.

L.I. Pearlin (✉)
Department of Sociology, University of Maryland, College Park, 3100 Shore Drive,
1053, Virginia Beach, VA, 23451, USA
e-mail: lpearlin@umd.edu

A. Bierman
Department of Sociology, University of Calgary, Calgary, AB, Canada

C.S. Aneshensel et al. (eds.), *Handbook of the Sociology of Mental Health, Second Edition*,
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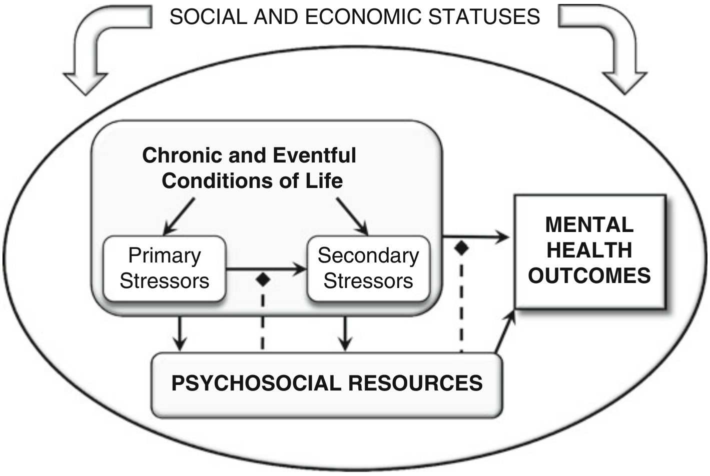

Fig. 16.1 The stress process

What places the stress process squarely among issues of sociological concern is the fact that each of its components—stressors, moderators/mediators, and mental health outcomes—can often be traced back to people's placement in social and economic statuses. Thus, a major feature of the stress process framework is the ubiquitous influence that is often exercised by social and economic statuses on one or more of the constituent components (Pearlin, 1989, 1999). This feature of the stress process has been instrumental in explaining mental health disparities in society (Turner, 2010) and is among the several reasons Wheaton (2010) identifies as accounting for the fact that the stress process paradigm continues to flourish as it passes its third decade of use.

The core components of the stress process and their hypothesized relationships are portrayed in Fig. 16.1. It can be pointed out that although the figure provides a useful schematic overview of the process, it does not capture the many possible conditions and experiences that can harm mental health. It is now evident, for example, that each component of the process potentially subsumes a host of stressful circumstances, protective moderating resources, and psychological states and that these subsumed elements may be joined in complex interrelationships. Thus, the stress process is typically complex, developing within the contexts and flow of people's social life. Moreover, the interconnections among the many factors subsumed by the components of the stress process perspective are often formed over time, thus making the term *process* descriptively accurate. Perhaps most salient from a sociological perspective is that a stress process perspective helps to articulate the links of a causal process that extends from the organization and status arrangements of society to the mental health of its members.

Our discussions are organized around Fig. 16.1, beginning with a consideration of stressors and then moving to the other components of Fig. 16.1. In each case, we address both our current understanding of the component and the research directions that might lead to the expansion of our understanding.

Conceptualizing the Landscape of Stressors

Stressors refer to circumstances and experiences to which it is difficult to adjust and, therefore, that can impose deleterious effects on emotions, cognitions, behavior, physiological functioning, and well-being. Two broad forms of social stressors can be identified: (1) Socio-environmental demands that tax or exceed the individual's ordinary capacity to adapt and (2) the absence of the means to attain sought-after ends (Aneshensel, 1992; Lazarus, 1966; Menaghan, 1983; Pearlin, 1983). External circumstances that challenge or obstruct are labeled *stressors*, whereas *stress* refers to internal dysfunctions that result from these circumstances. Thus, stress is not an inherent attribute of external conditions, but emanates from discrepancies between those conditions and characteristics of the individual—his or her status, locations, needs, desires, values, perceptions, resources, skills, and so forth (Aneshensel). For this reason, the same objective stressor can and usually does evoke disparate stress responses in different individuals, although, as we shall see, this is only part of the story of why stressors do not exert uniform effects on the mental health of everyone.

It can be seen that this definition is sufficiently broad to accommodate a panoply of difficult life circumstances. Among these circumstances are a variety of disruptive life events that can threaten safety and security and disrupt or end important relationships (e.g., Thoits, 1983). Although early work on stress and mental health relied almost exclusively on disruptive life events, the limits of this approach soon became evident (Pearlin, 1983; Thoits, 1983). It is now recognized that other stressors are chronic in nature, arising from more enduring and difficult life circumstances and conditions. Economic strains, marital and family conflicts, discriminatory experiences, job pressures, and frustrated aspirations as well as stressful events are but a few examples of chronic or repeated stressors that may surface in people's lives (Pearlin, 1983).

To a major extent, the variety and breadth of stressors stem from the multiple contexts of social life from which the stressors can arise. In his detailed taxonomy of the "the universe of stressors," Wheaton (1994) distinguishes the micro-, meso-, and macro-levels of the contexts in which stressors can arise. This distinction is important to the extent that it indicates that virtually every major context in which people are engaged is a potential source of stressors, ranging from their informal social networks to the neighborhoods in which they reside, the social and economic institutions in which they have roles, and the overarching conditions of the larger society, such as protracted wars and economic recessions (see Chap. 15). The breadth of Wheaton's comprehensive framework invites a continual search for new and unexamined conditions that are potentially harmful to mental health. It is also notable that in recent years, neighborhoods and their ambient conditions indicative of disorder have come to be seen as major ecological sources of stressors (see Chap. 23).

Adding to the challenging nature of the search for socially rooted stressors and their sources is the fact that the array of stressors that people confront is not static but, instead, changes as they age and move along the life course (Pearlin & Skaff, 1996). For example, young adults face the acquisition of new roles and statuses, such as finding a job, taking on and adapting to a marital or other intimate partner, and becoming a wage earner. At the other end of the age spectrum are a growing number who must deal with the stress of declining functional abilities (e.g., Gayman, Turner, & Cui, 2008; Yang, 2006). These examples illustrate how the life course serves as a crucible in which the universe of stressors is formed and experienced. Research that focuses on the universe of stressors without a consideration of the life-course context of these conditions is likely to overlook a fundamental framework that underlies their creation and effects.

In addition to the changes brought about by aging and life-course shifts, the universe of stressors to which people are exposed is also altered to some extent by innovations and changes that arise in the surrounding society. For example, Glavin, Schieman, and Reid (2011) describe an emergent source of stress fueled in large part by innovations in communication technologies. These authors refer to this emergent source of stress as *role-blurring*, which occurs when roles that are usually segregated in time and space become comingled. Their study underscores how technological changes in communications undermine the separation of roles; thus, through increased access to and penetration by new forms of communication, work demands are more easily projected into the family domain. This study further found that women more than men are likely to be affected by the blurring of work and household roles, illustrating how the emergence of stressful change may be entangled with social statuses. Thus, the universe of sources of stress continues to expand.

A type of stressor deserving more attention than it has as yet received is those that are anticipated or apprehended rather than operant (e.g., Starcke, Wolf, Markowitsch, & Brand, 2008). Unlike those negative events and strains that have a current and active presence in the lives of people, anticipated stressors do not exist as realities but are viewed as having the potential to become so. Anticipatory stressors may be aroused by a variety of circumstances. For example, research in criminology has documented that people's fear of being victims of crime increases following incidents of victimization among those within in one's social network (Agnew, 2002). These findings suggest that as hardships befall significant others, individuals may increasingly anticipate that their own lives will be impacted by the same threatening circumstances.

On a much larger scale is the arousal of anticipatory stressors associated with fluctuations in the economic conditions across the society. It is has been well established that those directly exposed to the financial strains that accompany recessions can suffer deleterious mental health consequences (Zivin, Paczkowski, & Galea, 2011). However, as economic hardships begin to affect relatives, friends, neighbors, or coworkers and are daily subjects of media reports, the misfortunes of others can result in anxiety and apprehension among those who have not directly experienced such strain. The fates of others, we propose, may spur the more fortunate to contemplate their own economic and occupational futures. That is, those not yet the victims of economic adversity may begin to question if there will be downsizing at their place of work, if the employer will move the entire enterprise offshore where there is a population willing to work for less compensation, or whether their savings are at risk of erosion. These are the kinds of questions that can surface as anticipatory stressors during hard times.

We would expect, too, that individuals in less advantaged statuses are most vulnerable to these kinds of anticipatory stressors, for they are more likely to have more numerous and stronger social connections with individuals who are already struggling with financial problems. This is suggested by Wilson and Mossakowski (2009), who find that African-Americans and Latinos have a greater fear of job loss than their white counterparts, regardless of their human capital credentials (e.g., education and work experience) and job labor market advantages (e.g., favorable market sector). More consideration of anticipated stressors, we believe, would help to advance our understanding of status-related differences and similarities in mental health, even in the absence of observable stressors.

As noted above, it is those stressors related to the hierarchical arrangements of the society and its institutions that help to base research into the stress process within the domain of sociology. Yet, it is worth briefly noting that there are instances where stressors that are not status-related are nevertheless relevant to sociological study. Specifically, randomly distributed stressors, such as natural disasters, may activate mediators/moderators or evoke dimensions of distress that are status-related. Thus, status placement, even when unrelated to exposure to a stressor, may nevertheless be related to other components of the stress process that are set in motion by that stressor. Moreover, an initial randomly distributed stressor may, through a process of stress proliferation, give rise to other stressors that are status-related. It is to the process of stress proliferation that we now turn.

Stress Proliferation

Along with the awareness of the ubiquitous effects of statuses on the entire stress process, we have come to regard stress proliferation as a pivotal aspect of the stress process (Pearlin, Aneshensel, & LeBlanc, 1997). Stress proliferation refers to new or "secondary" stressors that emerge from "primary" stressors, those to which people are initially exposed. The phenomenon of stress proliferation is an important feature of the stress process because it extends our vision beyond the presence and impact of a single stressor at a single point in time, calling attention instead to the *configuration* of multiple stressors that may simultaneously or serially impinge on people's lives. Proliferated stressors can be in the form of either untoward events or chronic strains. In addition, a negative event may result in additional events or chronic strains, just as strains may result in additional strains or new events. The stressful event of job loss, to illustrate, can contribute to multiple chronic hardships, such as financial strain and marital conflict

(Pearlin et al., 1981). Similarly, marital conflict that eventuates in divorce represents a situation where what was probably a chronic stressor of some duration leads to an event, the divorce (Birditt, Brown, Orbuch, & McIlvane, 2010). For at least one of the divorced pair, there is a good chance that the event, begotten by chronic conflict, may then give rise to additional stressors, such as social isolation or economic hardships and burdens associated with being solely responsible for the care of dependent children (Pearlin & Johnson, 1977). As these illustrations suggest, stress proliferation may involve a series of stressors, where one or more stressors follow on the heels of a prior stressor.

Proliferation may also be observed as entailing the lateral spread of stressful problems across roles. Sometimes identified as "spillover," this form of proliferation can be observed, for example, when stressful job conditions lead to a greater work-family conflict (Wallace, 2005; Wethington, 2000). Where spillover occurs, there is an increased chance that what originated as a problem of the individual in the workplace is now extended to involve marital problems (Pearlin & McCall, 1990). Lateral proliferation may also be seen in situations where an individual's stressful experiences, whatever they might be, become a source of stress for others having a close relationship with the individual. Such situations have been described as the cost of caring (Kessler & McLeod, 1984). The occurrence of this type of lateral proliferation and its bearing on mental health have been observed in an intergenerational study by Milkie, Bierman, and Schieman (2008). These researchers showed that adversities faced by adult offspring tend to become the health-related stressors for their elderly parents, particularly in African-American families.

Attention to the proliferation of stressors can potentially yield a picture of people's significant stressful experiences over the course of their lives. To illustrate, analysis of longitudinal data has revealed how health disparities that become apparent in middle and late life may have originated in conditions and experiences that existed much earlier in the life course (e.g., Green et al., 2010; Kahn & Pearlin, 2006; Mensah & Hobcraft, 2008; Springer, Sheridan, Kuo, & Carnes, 2007; Warner & Hayward, 2006). Thus, the psychological well-being and morbidity of people in mid- and late life may be traced as far back as the statuses of their parents and conditions of hardship that existed in their households of origin at the time of their births. In some instances, then, the mental health of people in late life may reach back to conditions that were not of their own making, nor within the sphere of their control (McLeod, 2003; Wickrama, Conger, & Abraham, 2005). Consequently, it is often appropriate for research on stress and well-being to think in terms of causal chains that can stretch over substantial spans of time (e.g., Bierman & Pearlin, 2012; Wickrama, Conger, Wallace, & Elder, 2003). By and large, there is ample evidence indicating that we cannot rely exclusively on a recent event or current strain to identify fully the reasons for contemporary status-related differences in well-being. Indeed, to understand recent negative events and chronic strains, it might be necessary to examine whether they are the proliferated products of stressors that were operant in decades past (e.g., Horwitz, Widom, McLaughlin, & White, 2001; Pudrovska, Schieman, Pearlin, & Nguyen, 2005).

As we have emphasized above, status placement may be entwined with each of the components of the stress process. It should be recognized that this is no less the case with secondary stressors than with other components. For example, it can easily be understood that if one enjoys the advantages of an extended education and the possession of specialized occupational skills, she or he will not be exposed to the same proliferated consequences of job loss as one with limited education and highly interchangeable job skills. In turn, the mental health of one whose life becomes embedded in a constellation of secondary stressors resulting from a job loss is likely to be more harmed than that of a person free of secondary adversities. Thus, social statuses may modify the extent to which a primary stressor begets additional stressors, thereby altering the effects of the primary stressor on mental health. Once more, then, we can appreciate the critical influence of status placement, both as an antecedent to stressors and as a condition that can modify the effects of stressors on mental health. There is no doubt that the systematic inclusion of potential secondary stressors in longitudinal studies of the stress process can substantially add to our understanding of the connections between status placements and health outcomes.

Resources and Their Mediating/Moderating Functions

From the earliest times of stress research by social and behavioral scientists, it was observed that people differ considerably in the ways and extent to which their well-being is affected by exposure to a stressor. Indeed, there has been as much, if not more, effort to explain the differences in the consequences of stressors as to identify stressors and their sources. We suggested above that status-based differences in the patterns and extent of proliferation can be viewed as one explanation for the differences in the mental health effects of stressors. However, the mainstream of research aimed at accounting for the differences in responses to the same stressor has focused on what collectively can be referred to as *resources*. Simply described, personal resources are the qualities that are capable of influencing the *effects* of stressors on people's mental health. Among the resources that have often been shown to have this capability are coping, social support, and mastery or personal control, each of which often varies with one's social and economic status, as discussed below. Before discussing each of them below, it is first useful to describe briefly how resources may function as both mediators and moderators in the stress process.

In mediation, resources may be diminished or elevated by exposure to stressors and, in turn, exert a commensurate influence on mental health. Mediators are thus related both to the stressors from which they are created and to mental health outcomes. Conversely, moderators alter the relationship between stress and mental health, helping to protect people from the effects of stressors or leaving them more vulnerable to their deleterious effects. What makes the distinction between mediators and moderators somewhat confusing is the fact that the same resource may serve both functions. For example, Pudrovska and colleagues (Pudrovska et al., 2005) found that mastery helps to explain the effects of prolonged economic strain among older adults on depression by showing that economic strain depletes mastery, and reduced levels of mastery, in turn, lead to greater levels of depression. Thus, mediators are treated as pathways through which the effects of stressors on mental health can be traced. In addition to this explanatory function, though, Pudrovska et al. also found that higher levels of mastery weaken the relationship between economic strain and depression. Mastery therefore also acts as a moderator by preventing the deleterious effects of stress on mental health. Unlike mediators, moderators are treated as qualities which do not *directly* influence mental health, but, instead, influence the impact of the stressor on the outcome. Resources, such as mastery, may serve mediating *and* moderating functions, both explaining the mental health effects of a stressor and modifying the relationship between the stressor and a mental health outcome. The following discussion mainly focuses on the moderating functions of resources. That is, although resources may be seen as having the potential either to explain or to modify the effects of stress, we shall be concerned mainly with their ability to constrain the stressful consequences of stressors.

Coping

Coping refers to a behavioral or cognitive response to a stressor that helps to prevent or allay the harm otherwise caused by the stressor (Folkman & Lazarus, 1980; Pearlin & Schooler, 1978). The protective functions of coping include avoiding or eliminating the stressor, containing the proliferation of secondary stressors, perceptually altering the meaning of the situation in a manner that neutralizes its stress-inducing character, and keeping its emotional consequences within manageable bounds (Pearlin & Aneshensel, 1986; Pearlin & Schooler, 1978). The term coping implies effectiveness, but actions undertaken to curtail a stressor or its impact may inadvertently exacerbate the situation or intensify its mental health impact. For instance, avoidance strategies generally have been linked to increased distress, although they can be successful for coping with short-term uncontrollable stressors; in contrast, approach-oriented coping strategies have been linked to positive psychological outcomes in general (Taylor & Stanton, 2007).

No resource has a track record of inquiry longer than that of coping. It probably also has more issues and questions surrounding it than found with other frequently investigated moderators. Some of these issues have been dealt with elsewhere and need not be repeated in detail here (Pearlin, 1991). From a sociological vantage point, a major shortcoming of much of the research into coping is the insufficient attention to its possible social aspects. For example, little attention is given to possible differences in coping repertoires among groups differing in social and economic status, treating these differences instead as reflecting the personalities and dispositions of individuals. Research on coping also typically treats individuals' coping as though it occurs in an interpersonal vacuum, overlooking the possible effects of one person's coping behavior on the mental health of others with whom the individual interacts within relevant role sets. To take a hypothetical illustration, an individual may cope in a manner that eases his or her distress but intensifies that of the individual's spouse. Moreover, there has been little attention to how coping and its effectiveness may vary with stressors that arise in different social contexts. Thus, there is evidence that coping is more effective in moderating the interpersonal problems that arise within the family and informal social relationships than stressors found within formal organizations, such as those experienced in the work place (Pearlin & Schooler, 1978). One implication that can be drawn from this is that coping with stressors in organizations that are structured along lines of authority and impersonal rules and practices may be more effective when done collectively than when attempted by individuals. A somewhat different shortcoming of coping research, finally, is its failure to consider how repertoires might change as people traverse the life course. Consequently, little is known either of how coping strategies change over time as they are put through a trial and error process or of how coping repertoires are altered by the ebbing of old problems and the emergence of new ones in the aging process. This brief and incomplete sketch of coping should not be interpreted to mean that sociologists have no meaningful part to play in research into coping. To the contrary, it means that our understanding of coping and its moderating functions could be substantially enhanced by an expanded inclusion of sociological perspectives in its study.

Social Support

Social scientists hardly need encouragement to observe the moderating functions of social support, for these moderating functions have an established and extensive history of research in stress and mental health (see Chap. 17). House and Kahn (1985) identify three general types of support: emotional, informational, and instrumental. Within this threefold distinction, most definitions of social support include the satisfaction by others of one's needs for affection, esteem, identity, security, and assistance (Cobb, 1976; Thoits, 1982). Social support, especially emotional or perceived support, is inversely related to diverse forms of psychological disorder (Bertera, 2005; Cairney, Corna, Veldhuizen, Kurdyak, & Streiner, 2008; Lincoln, 2008; Thoits, 2011). However, longitudinal studies demonstrate that social support can have a reciprocal relationship with psychological disorder; social support not only protects against disorder, but social support may also decrease among persons with psychological disorders (Aneshensel & Huba, 1984; Gracia & Herrero, 2004; Stice, Ragan, & Randall, 2004; Turner, 1981). This suggests that mental health problems can interfere with the effectiveness and continuity of social support.

As with the other components and subcomponents of the stress process, we are reminded by the extensive literature on social support that as knowledge accrues, so, too, does recognition of the questions that are as yet incompletely answered. Although it is well established that social support possesses uplifting and protective powers, it is not entirely clear how these powers are exercised. One possibility concerns the construct of *mattering* (Rosenberg & McCullough, 1981), the sense that one's welfare is of importance to a significant other. Mattering is likely an inherent by-product of social support because indications that one is a significant person to others are nurtured by interaction that promotes a sense of belonging, identity, and commitment (Taylor & Turner, 2001). A sense that one is needed and valued is in turn likely to be particularly critical during times of hardship and stress. Another plausible reason for the efficacy of social support is its *legitimating functions*. That is, support often gives to the recipient the "right" to be distressed by some perceived stressor or other, conveying assurance that the distress that is felt is a reasonable and acceptable response to the stressor provoking the response. It helps to place the problem with the stressful circumstance, not with a defect within the person. Thoits (2011) further hypothesizes a number of social psychological reasons for the efficacy of social support for mental health, including social influence/social comparison, social control, self-esteem, mastery, belonging and companionship, and perceived support availability. However, as Thoits points out, these hypothesized mechanisms await rigorous empirical test, an important item for future studies.

For some people, support is easily available and salutary; however, even when it is available, it is not always utilized nor does it always help to ease the effects of stressors (Rook, 1984). For example, in a qualitative study of the spillover of job problems into the household (Pearlin & McCall, 1990), some wives reported occasions where their husbands were sullenly silent about the problems they experienced at their workplaces. These reports suggest that the husbands interpreted proffered support as an affront to their ability to handle their own problems. But probably, failed support is more often a result of the donors' style of giving it, such as belittling the significance of the problems, judging that the level of distress is not warranted by the seriousness of the stressor, jumping in with advice that is inappropriate to the nature of the problem, or preempting the recipient role by presenting a litany of the donor's own problems. Moreover, the negative aspects of donor-recipient relationships may outweigh the mental health benefits of the positive aspects of relationships, as suggested by research showing that when the mental health consequences of positive and negative social exchanges are considered independently, negative social exchanges have more consistent relationships with mental health than the positive aspects (Newsom, Nishishiba, Morgan, & Rook, 2003). Obviously, exploration of the reasons for failed support attempts also deserves a place on the agenda for future research.

Mastery

Along with coping and social support, aspects of the self-concept are repeatedly found to function as moderators in the stress process. Outstanding among these is *mastery*, which pertains to individuals' self-perception of their ability to control the exigencies that may confront them (Pearlin & Schooler, 1978). Consistent with other major moderators, mastery stands in an inverse relationship to indicators of socioeconomic status (e.g., Schieman, Nguyen & Elliott, 2003). This association has been attributed to class-based opportunities and achievements (Pearlin & Radabaugh, 1976), including such lower social class exigencies as the inability to achieve one's ends, inadequate resources and opportunities, and restricted alternatives (Ross & Mirowsky, 1989), as well as to the association between education and jobs that are challenging, interesting, and enriching (Schieman & Plickert, 2008). Thus, a confident sense of personal control is less an expression of hubris than the consequence of having a history of incumbency in privileged statuses where one both faced fewer hardships and had more resources for dealing with those that do arise (Conger, Williams, Little, Masyn, & Shebloski, 2009; Pearlin, Nguyen, Schieman, & Milkie, 2007).

Although it is thoroughly established that mastery is capable of assuaging the health effects of stressors, as with other moderators, the reasons are not entirely clear. There is a pair of possible explanations. First, it is quite possible that stressors that are otherwise experienced as severe are perceived as being less ominous by those armed with an elevated sense of mastery. Thus, the sense of personal control helps to perceptually neutralize the level of threat posed by stressors. Second, and related to the first, the diminished threat leaves one with greater confidence that the stressor is within the range of their abilities to control it, making it more likely that individuals will be motivated to attempt to ameliorate or address the problems in their lives, rather than deny or avoid these problems (Ben-Zur, 2002; Caplan & Schooler, 2007).

We have emphasized thus far the conceptual distinctiveness of the three moderators and the capacity of each to buffer the negative effects of stressors on mental health. It is useful, however, to look beyond their separate moderating functions and consider the possible joint effects of the multiple moderators. In addition to the benefits of mastery for efficacious coping, personal control has also been shown to be related to social support (Gadalla, 2009; Schieman & Meersman, 2004), with some research suggesting that mastery may be both an influence on and a consequence of social support (Green & Rodgers, 2001). These findings indicate that individuals equipped with high levels of resources may be able to pool them in the course of experiencing stress. It also suggests that when one resource is ineffective, they are able to utilize the others. The study of the buffering effects of resources might profitably examine how multiple resources operate as buffers, both independently and in tandem, as a means of functioning as an interlocking matrix of resources. Although researchers have frequently examined how a specific resource or type of resource prevents the deleterious effects of stressors on mental health, the benefits that advantaged social statuses provide for mental health are likely derived from their provision of multiple resources and their joint effects. Research that does not take this multiplicity into account may be left with an incomplete depiction of the ways that social statuses provide a foundation for the development of moderating resources.

In sum, there is abundant evidence that coping, social support, and mastery are substantially capable of moderating the impact of stressors on mental health, thereby accounting in part for the repeated finding that exposure to the same or similar stressors does not exert a uniform effect on the mental health of everyone. Paradoxically, the more we are able to observe the protective functions of these resources, the more we are left with explanatory gaps in understanding why they are effective as buffers. The ways in which these resources combine to affect mental health are also largely unexplored. In general, we need to be better informed as to which resources serve as effective moderators of what kinds of stressors, for what kinds of people, and under what kinds of conditions. These matters constitute a major part of future agenda of research into the buffering role of psychosocial resources.

Belief Systems, Values, and Meaning

Acknowledgment should be given to the part played in the stress process by belief systems, values, and meanings and their interrelationships. Belief systems, which are conceptually on a different level than coping, social support, and mastery, have their own potential moderating functions. By belief systems, we refer to the comprehensive understandings people acquire that help them understand their surrounding worlds, the forces that organize and guide it, and the effect these forces exert on one's more immediate personal world—especially its adversities. Not everyone subscribes to a widely embracing belief system, by any means. Many are disposed to look elsewhere for understanding the demands and hardships that they bear: to luck or chance, to the strengths and flaws of those with whom they must interact, to the abilities or misguidance of their leaders, or to intractable fate. By contrast, people who have little tolerance for uncertainty, randomness, or particularistic explanations may be drawn to a widely shared belief that their life circumstances, as well as those of others, are the outgrowth of orderly forces. Even when beliefs may not be empirically verifiable, they may still be looked to for explanations for what people experience and for what they must do to avoid or overcome adversity.

Whereas coping repertoires, social support, or self-concepts of mastery are usually developed from one's own experiences and from interactions with those in one's social network, belief systems are anchored in institutional contexts and organized religion prominent among them. In calling on supernatural entities for assistance or adhering to various prescribed rituals, for example, religion offers a variety of ways to avoid, eliminate, or alleviate stressors or to lessen the prospects of being destined to an eternally dark afterlife. Because of the promises of religious interventions, it is understandable that its purported functions within the stress process have come under close attention by stress researchers in recent decades (see Chap. 22), but the evidence regarding the moderating efficacy of religious beliefs and practices is thus far mixed. What is clear is that the dependence on religious beliefs and practices and their efficacy as moderators, if any, will vary with the social and economic characteristics of the participants. Given the scope and intensity of devotion to religious institutions and their teachings, continued attention to religion within the framework of the stress process is certainly warranted.

Belief systems are also hosted by institutions other than religious, most notably by political organizations and movements. Although occasionally religiously and politically inspired beliefs may conflict with one another, they are alike insofar as they both provide comprehensive and integrated explanations of the circumstances of people's lives. In effect, political institutions and movements place the hardships people face—as well as many of the good things life offers—as orderly manifestation of the powers that control and guide social and economic life. Ideologies treat stressors not as random and capricious circumstances, but as the workings of prevailing, but often hidden, man-made forces that reach out to affect the lives of multitudes. Of course, people may give up or otherwise change their beliefs, religious or political, but when beliefs are fostered by institutions, these beliefs can be deeply inculcated in the commitments and motivations of their adherents. At the extreme, people may be willing to die or kill in defense or advancement of their beliefs.

We view values and meaning as closely related to each other and to belief systems. Values, which may be embedded in belief systems, refer to the hierarchical order of importance attributed to our various roles, actions, relationships, goals, and means of their attainment. In general, values arm us with the criteria by which we recognize desiderata and thus guide our decisions and actions. Values can differ widely with social and economical stratification, reflected in such matters as the valuation of education, financial success, life style, and the emphasis given to different aspects of child rearing (Hyman, 1953; Pearlin, 1988; Pearlin & Kohn, 1966; Simon, 1997). The power and impact of a stressor on well-being may be affected by the extent to which it intrudes on the prized values of the persons exposed to the stressors. A child who drops out of school before receiving a high school diploma, to illustrate, may create more anguish among parents who prize education than among parents more indifferent to educational achievement. The influence of a stressor on individuals' mental health, therefore, may vary with whether the stressor is irrelevant to one's values or, at the other extreme, is in violation of values of central importance.

Meaning is a multi-faceted construct and, correspondingly, more difficult to define than are values. In general, meaning can be thought of as the understandings and interpretations that can be made of life and its exigencies. Thus, people may implicitly ask whether there are circumstantial aspects of their lives that should concern them and, if so, what is the nature of the circumstance. Such questions may involve whether it is an assault on one's identity or on the groups of which one is a member, whether it is a barrier to aspirations, whether it places loved ones at risk, and so on. Essentially, we view meanings as derived from beliefs and values; that is, they represent the amalgam of subjective understandings with which people are left after the challenging circumstances of their lives are evaluated in relation to one's beliefs and values.

Much needs to be done to conceptually specify these moderators and to establish credible measures of them; nevertheless, we propose that these are promising targets in a search for moderators that go beyond personal resources. The study of relevant beliefs and values and their influence in molding subjective understandings of life circumstances is potentially a sociologically rich way to identify additional conditions that further explicate the frequent finding that the same circumstances can have appreciably different consequences for mental health.

Mental Health Outcomes

The selection of outcomes in the study of the stress process is of critical importance because these outcomes calibrate the injurious effect of stressors and the extent to which psychosocial resources and subjective dispositions help to protect people from these effects. As with each of the other components of the stress process, there are both current concerns and future possibilities surrounding the selection and treatment of outcomes that are relevant to sociological inquiry. Several chapters address the nature of mental health outcomes: Chap. 3 discusses the psychiatric view of mental illness, Chap. 6 articulates their sociological interpretations, and Chap. 7 presents a review of measures. Here we identify some issues that should be considered in selecting outcomes for sociological research on the stress process.

Among the outcomes most typically employed by inquiries into the stress process are elements of distress, such as anxiety, anger, and depression—the latter being by far the most commonly studied outcome in the sociological studies of mental health. It is no accident that indicators of distress have been the mainstays of social research, for they have proven to be quickly responsive to a wide variety of social, economic, and experiential conditions. Over the decades, these indicators of distress, especially that of depression, have proven to be sensitive and reliable barometers of the socially rooted stressors people encounter as they enact their various social roles and engage in their various relationships.

Yet, it has been shown convincingly that each of these outcomes by itself falls short of revealing fully the mental health effects of stressors. This is because different social groups often manifest the distress resulting from stressors in different ways. As a result, if but a single-outcome indicator is considered, those who respond to a stressful experience by manifesting some other forms of distress are mistakenly treated as though they are unaffected by the stressor (Aneshensel, Rutter, & Lachenbruch, 1991). Equating the mental health effects of stress with a specific disorder that is prevalent in a particular social group may, therefore, bias estimates of the power of stressors and of group differences in stress reactivity. This issue is less salient if we wish to identify the antecedents of a particular disorder, such as depression, but it is critical in stress research whose goal is to highlight the mental health consequences of social arrangements (Aneshensel, 2005). Although sociological researchers are often aware of this problem, single-outcome studies continue to predominate, and only some researchers include multiple outcomes in addition to depression, typically alcohol misuse and anger (e.g., Horwitz et al., 2001; Schieman & Meersman, 2004; Williams, 2003).

An additional long-standing issue revolves around the question as to whether outcomes should be measured by continuous scales of symptoms, as is often the practice in social research, or by diagnostic categories, as is the usual practice in psychiatry (see Chap. 7). The use of diagnostic categories in sociological research can be particularly problematic because psychiatric diagnoses tend to regard expectable responses to disruptive stressors as dysfunctions within the individual (Horwitz, 2007). Social researchers, by contrast, may look at the same responses as a normal reaction to severe stressors (see Chap. 6). The failure to make these distinctions conflates normal sadness that arises after the loss of a loved one, by way of example, with true depressive disorders that are not proportionately grounded in social contexts (Horwitz & Wakefield, 2007). Moreover, by ignoring the distinction between distress and disorder, we run the risk of viewing emotional responses to social and economic hardships as diseases, thus medicalizing human suffering and obfuscating its social origins (Mirowsky & Ross, 2002).

The question of whether to use dimensional or diagnostic measures presents a quandary because the inclusion of outcomes that are inherently nonresponsive to stress will produce smaller estimates of the effect of stress on mental health, but excluding such disorders hampers one's ability to speak to the effects of stressors on mental health in its broadest sense. Although there is no consensus on this issue or how best to resolve it, ultimately the selection of a measure is best decided by how closely the conceptualization of the outcome corresponds to the research question (Aneshensel, 2002). These issues are likely to become more prominent in the future, though, because revisions being planned for the Diagnostic and Statistical Manual of Mental Disorders place a greater emphasis on dimensional assessment (see Chaps. 3 and 7).

Discussion

The stress process perspective for many years has functioned as a conceptual guide to the sociological study of stress and health. Over the years, it has helped to assemble evidence that leaves no doubt that there are numerous eventful disruptions and chronic hardships that are inimical to health, many of them disproportionately experienced by those in disadvantaged statuses. The major components of the paradigm have remained largely unchanged since its initial construction. Thus, stressors, moderators/mediators, and outcomes continue to stand as its major conceptual underpinnings. Moreover, as we have emphasized throughout this chapter, each of the components is related to status placement within major social institutions, a fact that establishes the study of mental health firmly within the larger discipline of sociology. Yet, the continuity and simplicity of the paradigm are both somewhat deceptive. Each of its components subsumes multiple elements that have been identified and refined over the years, and the dense web of interrelationships among these elements has been intensively explored. Throughout this chapter, we have sought to identify for future study additional stressors, moderators, and their interrelationships.

Research employing a stress process perspective has tended in the past to be aimed at the identification of specific stressors that have the capacity to undermine well-being. However, inquiries into stress proliferation, cumulative stress, and the continuities and discontinuities of stressors across the life course have brought greater awareness of the organization and interconnections of different stressors within and across time and within and across major institutional and ecological contexts, such as family, occupation, economy, and neighborhood. As a result of this work, we have a better grasp of how stressors can generate other stressors, how there can be a piling up of simultaneously operant stressors, and how stressors and their health consequences observed in late life might be the result of a chain of stressors that originated much earlier and helped to shape life-course trajectories. Moreover, it has been shown that the distribution of multiple stressors stems from the same structural disadvantages that often underlie the emergence of single stressors. It can also be noted that the presence of multiple stressors provides researchers the opportunity to examine the nature of their joint effects. Although little attention has been given to this matter, it is possible that where multiple stressors simultaneously impinge on the lives of people, they might either exacerbate the mental health consequences of a specific stressor or, alternatively, weaken these effects because the individual stressor becomes less salient when multiple stressors are operant. Attention to the way that status-related stressors co-occur and interact will give a more complete picture of the ways that structural arrangements influence individual psychological well-being.

Among the plethora of potentially stressful conditions are those that do not exist at the present time but are anticipated to arise in the future. We refer to these as anticipatory stressors, which are probably experienced with greater frequency than is recognized. Apprehension of job loss is one of the more outstanding among these kinds of stressors because work and its financial rewards are instrumentally crucial to other areas of social life. The risk of job loss can raise the level of trepidation that if and when loss is transformed from an event that *might* occur to one that *has* occurred, the disruptions that can follow reach into every corner of one's life. And, of course, this is an anticipatory stressor to which people in the lower occupational rungs are especially at risk, along with racial and ethnic minorities and older workers. The sheer numbers of people who experience this stressor during periods of economic downturns should place it in the line of vision of social stress researchers. However, despite its probable prevalence and importance to mental health, it is certainly not the only anticipatory stressor of serious consequence. To choose but one of many examples, we can posit that residents of disordered neighborhoods who have thus far lived safely may nevertheless exhibit considerable concern about their future personal safety (e.g., Ross & Jang, 2000).

Although it is difficult to imagine that adults living in contemporary societies would be totally able to avoid exposure to stressors, it is equally difficult to expect that all those who are exposed will suffer damage to their health. There are multiple conditions that enable people to escape such damage, among them is the fact that many stressors encountered in daily life may be highly transient and, despite being temporarily stressful, are relatively impotent with regard to their health impact. There are also instances where serious and enduring stressors do not impose an appreciable tax on health. Traditionally, such instances have usually been explained by the possession of moderators, that is, the social and personal resources that can be mobilized to blunt or prevent the negative impact of untoward events or hardships. Progress in identifying protective moderators, which has largely centered on coping, social support, and personal control, has been credible, but considerable work lies ahead in identifying the reasons for and the conditions under which they are effective.

Looking beyond the personal resources, we have suggested that beliefs, values, and meaning may also function as moderators in the stress process. These are closely related constructs that may be activated as people judge and interpret the critical circumstances they confront. In effect, beliefs and values serve as frames of reference by which people “make sense” of these circumstances. Whether or not the sense that is made of impinging circumstances signals threat to one’s interests represents the stress-related meaning they have for individuals. Beliefs and values and the meaning to which they contribute have multiple sources, but those of particular sociological relevance are anchored both in people’s social and economic statuses and the institutional and cultural contexts in which their lives are spent. Along with other issues to which we have called attention, the functions of these three constructs deserve a larger place in research into the stress process.

The final component of the stress process examined here concerns outcomes. The mainstays employed in social stress research have been symptoms of distress and problematic behavior, such as alcohol and substance abuse. The ability of these symptoms to reveal the importance of status-related stressors to mental health cannot be exaggerated. However, it should not be thought that the stress process necessarily ends with outcomes of distress. To the contrary, it is likely that tenacious distress may lead on to an extension of the process that reaches into and interferes with the normal functioning of physiological substrata of the organism and to illness and disease. A future interdisciplinary mission involves the joining of sociological research with its emphasis on status-related distress and research into the connections between symptoms of distress and physical well-being. Until then, it is necessary to assume that distress alone yields an incomplete picture of the health effects of the social stress process.

Whatever its future tasks may be, research into the stress process over the past several decades has led to a considerable forward movement. Yet, it remains a work in progress, for each step forward raises new questions and challenges. However, the work that lies ahead should not obscure a core message that can be drawn from what has already been learned from the sociology of mental health and its stress process framework; namely, when we look at the etiology of mental health, we are able to see a convincing example of how personal problems may often have their beginnings in social problems. This message needs to be underscored and repeated, for when the political climate of society shifts to the right, a contrary message tends to arise, namely, that social problems start as personal problems. We can assert that what has been learned and what will be learned in the future will continue to go directly against the grain of such a claim. Personal problems can be and often are reflections of structures and contexts in which people lead their lives.

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Chapter 17
Social Relations, Social Integration, and Social Support

J. Blake Turner and R. Jay Turner

Abbreviation

CHD	Coronary heart disease

The importance of social relationships in the lives of human beings is an idea as old as the written word. In Genesis (2:18), the Lord declares, "It is not good that [one] be alone," and philosophers from Aristotle to Martin Buber have emphasized that the essence of human existence is expressed in our relations with others. In sociology, patterns of human contact, processes of social interactions, and the subjective valences of personal relationships have been central foci of theory and research since the inception of the field. Over the past 35 years or so, a substantial portion of this literature has focused on the impact of the presence and quality of social relationships in health and illness, including mental health. *Social support* has become the most widely used phrase to refer to the salutary content of these relationships.

Sociologists can trace the ancestry of social support research to Durkheim's (1951) treatise and empirical assessment of the role of social involvement in the prevention of suicide. However, the well-documented "boom" in social support research (House, Umberson, & Landis, 1988; Vaux, 1988; Veiel & Baumann, 1992) probably owes more to the accumulation of evidence from other fields, particularly developmental psychology. Evidence of the significance of social support as a developmental contingency (e.g., Bowlby, 1969, 1973; Harlow, 1959; Spitz & Wolf, 1946) made it reasonable to hypothesize that social support must be relevant for personal functioning and psychological well-being throughout the life course. Support for such a hypothesis also appeared in evidence accumulated by social epidemiologists for the role played by a lack of social relationships in the development of serious physical morbidity (Holmes, 1956), psychiatric disorders (Kohn & Clausen, 1955), and general mortality risk (Kitagawa & Hauser, 1973).

J.B. Turner (✉)
Department of Psychiatry, New York State Psychiatric Institute, Columbia University,
1051 Riverside Drive, Box 78, New York, NY 10032, USA
e-mail: turnerb@nyspi.columbia.edu

R.J. Turner
Department of Sociology, Vanderbilt University, Nashville, TN, USA

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The subsequent growth in research on the significance of social support was stimulated by the publication of seminal review articles by John Cassel (1976) and Sidney Cobb (1976). These papers introduced a hypothesis that has been the focus of a large portion of subsequent research—that the availability and quality of social relationships may act to buffer the impact of exposure to life stress. In other words, the impact of stress may be greater among those who lack social ties compared to those who have supportive relationships with others. Up to the present, the health benefits of social support have been considered both in terms of its direct effect and in terms of its targeted role in reducing the noxious effects of life stress (Thoits, 2011).

Concepts of Social Support

The Oxford Dictionary defines support, in part, as "keep from failing or giving way, give courage, confidence, or power of endurance to … supply with necessities … lend assistance or countenance to" (1975, p. 850). Social support commensurately involves the transference of these benefits through the presence and content of human relationships. Indeed, the *presence* and *content* of social relationships form the primary rubric under which the health benefits of social support have been studied. The content of relationships is further subdivided into received social support—behaviors enacted by others for a person's benefit (Barrera, 1986; Vaux, 1988)—and perceived social support. The latter consists of what Cobb (1976) called "information belonging to one or more of the following three classes: (1) information leading the subject to believe that he[/she] is cared for and loved; (2) information leading the subject to believe that he[/ she] is esteemed and valued; and (3) information leading the subject to believe that he[/ she] belongs to a network of communication and mutual obligation (p. 300)." In other words, perceived social support refers to the clarity or certainty with which the individual experiences being loved, valued, and able to count on others should the need arise (Lakey & Scoboria, 2005).

It is perceived social support that has been the most prominent conceptualization in social support research since its early beginnings. This focus is consistent with the social psychological axiom that situations that are defined as real are real in their consequences (Thomas & Thomas, 1928). Empirical support for the importance of perceived support followed. In an early comprehensive review of the social support literature, House (1981) noted that the great bulk of evidence for the health benefits of social support came from studies focused on "emotional support"—his term for perceived support. He further acknowledged that emotional support was the common element found throughout most conceptualizations, that it captured what most people meant when they spoke of someone being supportive, and that, indeed, it seemed to be the most important dimension with regard to health outcomes. Wethington and Kessler (1986) went further, documenting not only that "perceptions of support availability are more important than actual support transactions but that the latter promotes psychological adjustment through the former, as much as by practical resolutions of situational demands (p. 85)."

Social Support and Mental Health

An ever-growing number of volumes and reviews document the apparent significance of perceived social support for emotional health and well-being (e.g., Brewin, Andrews, & Valentine, 2000; Cohen & Syme, 1985; Cohen & Wills, 1985; Dean & Lin, 1977; Gottlieb, 1981; Kawachi & Berkman, 2001; Kessler, Price, & Wortman, 1985; Lakey & Cronin, 2008; Lincoln, 2000; Lincoln, Chatters, & Taylor, 2005; Sarason & Sarason, 1985; Sarason, Sarason, & Pierce, 1990; Stice, 2002; Turner, 1983; Turner, Frankel,

& Levin, 1983; Vaux, 1988; Veiel & Baumann, 1992). Two general views have been offered to explain the protective benefits of perceived social support: (1) a situation-specific model in which perceived support functions as a coping resource in relation to particular stressful events or circumstances and (2) a developmental perspective that sees social support as a crucial factor in social and personality development (Cohen, 1992; Pierce, Sarason, & Sarason, 1996; Pierce, Sarason, Sarason, Solky, & Nagle, 1997; Uchino, 2004; Umberson & Montez, 2010). These views are not necessarily contradictory, reflecting instead the probability that social support has both short- and long-term consequences for psychological well-being (Pierce et al., 1996). Both of these perspectives view the social environment as the primary source of supportive experiences and, hence, of the perception or belief that one is supported by others. However, the first perspective focuses largely on the contemporary social environment, whereas the second view emphasizes the effects of the social-environmental context on personality over time, attaching special significance to the developmental years.

Main Versus Stress-Buffering Effects of Social Support

A substantial portion of the research on the mental health effects of social support has been associated with the hypothesis—strongly articulated in the influential papers by Cassel (1976) and Cobb (1976)—that social support acts to *buffer* the effects of life stress. As Cobb (1976) argued, social support facilitates coping with crises and adaptation to change. From this perspective, there will always be some main effects simply because life is full of changes and crises, but the major effects of social support should be found in moderating the health and mental health impact of the major transitions in life and of the unexpected crises.

Henderson's (1992) review of 35 social support-depression studies revealed only four that did not report this kind of buffering or protective effect. However, it is also clear from Henderson's review, and from the wider literature, that a number of studies have found a low level of support to increase risk for depression and other mental health problems, whether or not exposure to unusual stressors has also taken place. A more recent review concludes that the stress-buffering effects of social support are "less dramatic and consistent" than the direct effects of social support on mental health (Thoits, 2011, p. 145). Whether these findings allow the conclusion that social support can be of importance in the absence of social stress cannot be easily answered. Antonovsky (1979, p. 77) long ago argued that "all of us … even in the most benign and sheltered environments, are fairly continuously exposed to what we define as stressors…. We are able to get low scores on stress experience [only] because we do not ask the right questions or do not ask patiently enough and not because there really are any low scorers." He insists that "even the most fortunate of people…know life as stressful to a considerable extent" (1979, p. 79). If this constancy-of-stress argument is accepted, both the main and interactive effects that have been observed would theoretically be interpretable in terms of the buffering hypothesis.

Commenting on the main effects versus buffering question, Berkman and Glass (2000) have suggested that different components of social support may exert distinct influences on mental health. Specifically, structural and objective aspects of social relationships, such as the number of friends an individual has or the frequency of contact with these friends, may yield main effects. In contrast, they hypothesize that perceived social support is likely to operate through a stress-buffering mechanism. Thoits (2011) suggests that the general health benefits of social support may operate through many mechanisms, but the effectiveness of support as a stress buffer requires actually received or enacted support and is based on very specific combinations of *type* and *source* of support. Specifically, *love, care, sympathy, and instrumental assistance* are hypothesized to be the most effective stress buffers when coming from *significant others*, while *validation of feelings, advice, and role modeling* are most helpful coming from *similar others*—that is, those who have experienced or are experiencing a similar stressor.

Available evidence continues to suggest that social support matters for mental health independent of stressor level. Although less consistently demonstrated in the literature, most research also suggests that support matters more under circumstances of elevated stress exposure than when stress exposure is limited.

Conceptual and Empirical Limitations in the Study of Perceived Social Support and Mental Health

Spuriousness Due to Personal and Psychological Resources

To the extent that perceived support is a consequence of the self-concept and stable personality characteristics, its association with mental health outcomes may be a spurious one. Recall that Cobb's (1976) conceptualization of social support describes it as information that one is loved and wanted, valued and esteemed, and able to count on others should the need arise. From this perspective, reflected appraisal, which is a central component of self-esteem (Rosenberg, 1965, 1981, 1986), clearly represents an element of perceived social support. It therefore seems reasonable to assume a degree of reciprocal causation between the two constructs, leading to concerns that observed relationships between social support and mental health are attributable to the joint dependence of these constructs on self-esteem and related constructs.

Much empirical evidence validates this concern. For example, Gracia and Herrero (2004) found that elevated levels of depression and low levels of self-esteem predict reductions in levels of perceived social support over time. This finding suggests not only the possible confounding of self-esteem and perceived social support but also that, at least in cross-sectional studies, the causal order of the support-distress relationship is unclear. Further, although longitudinal data has shown that perceived social support and self-esteem predict changes in depression (Symister & Friend, 2003), the causal ordering of social support and self-esteem in influencing changes on depression remains ambiguous.

There is also some evidence that perceived social support is a fairly stable individual characteristic, associated more with personality characteristics than with variation in social interaction. Goodwin, Costa, and Adonu (2004) find perceived social support is much more strongly related to stably held personal values than to social support actually received. Similarly Cukrowicz, Franzese, Thorp, Cheavens, and Lynch (2008) document a strong association between the personality characteristics of extraversion and conscientiousness (characteristics negatively correlated with depression) and perceived social support; whether support has an independent association with subsequent depression was not assessed. These findings are consistent with older research demonstrating temporal and cross-situational consistency in perceptions of social support (Sarason, Pierce, & Sarason, 1990), and associations of these perceptions with personality characteristics such as social competence and personal control (e.g., Lakey & Cassady, 1990). At least part of the association between social support and mental health, therefore, may be due to the association between personality characteristics and measures of both perceptions of social support and mental health. Social support research that also assesses personality characteristics and aspects of the self-concept in the context of a longitudinal design is required to adequately examine this issue.

Distinctions Between Perceived, Received, and "Invisible" Support

The contention that social support is a "socially malleable contingency" (Turner, 1981) and therefore a useful target for mental health intervention is predicated on the belief that supportive actions and interactions ultimately have mental health benefits, even if those benefits are primarily mediated through social support perception. However, empirical associations between received and perceived support generally have been quite modest (Lakey, Orehek, Hain, & VanVleet, 2010; Stroebe & Stroebe, 1996). In part, this may be an artifact of the manner in which the two variables often are assessed. Supportive actions of others tend to be assessed with respect to a delimited retrospective period, and often in relationship to a particular stressful experience, whereas measures of perceived social support allow the respondent to generalize over a wide array of social interactions potentially over their entire life course (Hobfoll, 2009).

Furthermore, the issue is complicated by the possibility that the causal order of the association of perceived and received support is the reverse of what has been thus far assumed. In other words, those high in perceived support may be more effective at developing and maintaining supportive relationships on the one hand, and interpreting ambiguous actions and statements as supportive on the other (Cohen, Underwood, & Gottlieb, 2000; Lakey & Dickinson, 1994). As Pierce and associates (1996, p. 6) have noted, those with the firm expectation that others will be supportive "create supportive relationships in new social settings, thereby further confirming their expectation that others are likely to be supportive."

These measurement issues do not explain the often contradictory findings regarding the relationship of received social support to mental health. Not only are the mental health benefits of received support much weaker than those of perceived support, received support is often found to have adverse effects (see Uchino, 2009, for a review). Again, these findings may be partly artifactual. Supportive acts are often undertaken in response to an individual's heightened level of distress. Thus, in cross-sectional studies, any benefits of received support will be substantially attenuated. It is unlikely, however, that this attenuation would be strong enough in and of itself to cause a positive association between received support and psychological distress (Seidman, Shrout, & Bolger, 2006).

The positive relationship between received social support and distress may be in part because it is *supportive interactions of which the subject is unaware* (i.e., "invisible support") that have the most substantial benefits for mental health. Studies examining daily diary data from samples of married or romantically linked couples who were living together (Bolger, Zuckerman, & Kessler, 2000; see also Bolger & Amarel, 2007) have found that supportive actions performed and reported by a respondent had a beneficial impact on the recipient spouse's mood the next day, but only if the recipient did not themselves report having received the supportive assistance. When the recipient spouse *did* report the supportive behavior, the impact on mood the next day was negative. These investigators have suggested that the social support benefits of a marriage or romantic relationship accrue substantially through a kind of "dyadic coping" process in which each spouse is shielded from a certain amount of daily stress because of the contribution of his or her partner in responses to daily tasks and difficulties.

It is important to note that "invisible" in these studies does not necessarily mean that the individual is entirely unaware of the supporter's actions. It can also mean that the support is provided in a manner that does not draw attention to the recipient's need or otherwise undermine his or her sense of efficacy (Bolger et al., 2000; Shrout, Herman, & Bolger, 2006). This possibility is demonstrated in the work of Reinhardt, Boerner, and Horowitz (2006), who found that visible instrumental support had negative effects on psychological well-being, but the effects of visible affective support were positive. In other words, adverse outcomes were only associated with social support that underscored the recipient's inabilities.

Social Status and Social Support

While the relevance of social support for mental health is clear, it is also true that variations in the availability and experience of social support arise primarily out of life conditions, current and past (Pearlin, 1989). To the extent that important differences in such conditions are defined by incumbency in a particular set of social groups and statuses, the hypothesis follows that observed relationships between these statuses and mental health may arise, at least in part, from associated differences in social support. We therefore review evidence describing how social support may link multiple core social statuses to mental health, including gender, marital status, socioeconomic status (SES), and race/ethnicity.

Gender

Although a substantial number of studies have provided social support data by gender, the question of sex differences in level of support experienced remains a matter of some debate. More than two decades ago, Vaux (1988, p. 169) accomplished a rather complete review of available evidence and concluded that "empirical findings regarding gender differences in social support are mixed and inconsistent." However, others read essentially the same evidence as indicating a tendency for women to experience more supportive relationships than men (Flaherty & Richman, 1986; Leavy, 1983). More recently, analyzing data from a national probability sample, Umberson, Chen, House, Hopkins, and Slaten (1996) found clear and dramatic gender differences in the number and quality of social relationships. Women reported greater formal and informal social integration and more support from their friends. In terms of familial support, women reported more support from their adult children while married men reported greater support from their spouses than married women. In general, the weight of the evidence appears to suggest that women are advantaged with respect to social support, variously conceived and measured (Matthew, Stansfeld, & Power, 1999; Ross & Mirowsky, 1989; Turner & Marino, 1994).

Confidence in this conclusion is bolstered by substantial evidence of gender differences in the propensity to affiliate with others. Evidence has long been available indicating that, in stressful circumstances, women are more likely to provide support, and to both seek and secure support, primarily from other women (Belle, 1982; Schachter, 1959). As Taylor and colleagues (2000, p. 418) have noted, "Adult women maintain more same-sex close relationships than do men, they mobilize more social support in times of stress than do men, they rely less heavily than do men on their spouses for social support, they turn to female friends more often, they report more benefits from contact with their female friends and relatives…and they provide more frequent and more effective social support to others than do men." There are likely a number of reasons for gender differences in the propensity to affiliate with others, including cultural and role prescriptions, as well as evolved biobehavioral responses (e.g., Taylor et al., 2000), but the overall evidence for greater social connectedness among women, particularly in times of stress, is clear.

While women experience higher levels of social support than men, there appears to be little in the way of gender differences in the strength of the association between social support and mental health (e.g., Umberson et al., 1996). Thus, social support differences cannot, in any straightforward way, assist our understanding of the tendency for women to experience higher levels of psychological distress and depression than men. Indeed, without the advantage of higher social support, women "would exhibit even higher levels of depression relative to men than they currently do (Umberson et al., 1996, p. 854)." This may be in part because the larger social networks of women render them more exposed to the adversities experienced by others than men (Kessler & McLeod, 1984). Furthermore, women are more likely than men to report becoming involved when network members experience a negative event (Wethington, McLeod, & Kessler, 1987). Thus, when all aspects of social relationships are considered—the negative aspects as well as the supportive ones—the mental health advantage for women is likely to be attenuated.

Marital Status

As House (1981, p. 29) long ago noted, the “minimum condition for experiencing social support… is to have one or more stable relationships with others.” Being married is generally thought to define the existence of one such relationship—one in which normative expectations involve the giving and receiving of social support. The assumption of marital status differences in social support follows from these expectations.

However, evidence to justify this assumption has rarely been examined in recent years, and the results of these studies are not entirely consistent. For example, Louis and Zhao (2002) found that the married reported higher satisfaction with friendships than some, but not all, nonmarried groups. Similarly, Bierman, Fazio, and Milkie (2006) found that the married reported higher levels of social support from family than the divorced, never-married, and the *re-married*, but not the widowed. There were no significant differences, however, between the married and nonmarried groups for perceived social support from friends. Barrett (1999) examined these differences more intricately and found that marital status differences in social support themselves differ by race, gender, and education.

Do marital status differences explain the mental health advantages enjoyed by the married? Available evidence is currently sparse. Turner and Marino (1994) found that social support differences collectively accounted for approximately half of the depressive symptomatology advantage enjoyed by married persons, and more than 60% of their advantage with respect to major depressive disorder. More recently, Bierman et al. (2006) found that social resources, including support, helped to explain mental health advantages of the consistently married, but that these contributions varied depending on the group to which the consistently married were being compared and the mental health outcome being considered. This is an area clearly worthy of further investigation.

Socioeconomic Status

To the extent that the structures and processes of social relationships vary in a systematic fashion across socioeconomic statuses, this variation may play a role in SES gradients in mental health. Here, as with the other social statuses considered, evidence bearing on this possibility is sparse and variable. For example, the SES-social support relationship appears to vary depending on the source of support considered. Studies of adolescents and young adults indicate that SES is related to social support from family but not to support from friends (Gayman, Turner, Cislo, & Eliassen, 2011; Salonna et al., 2011; see, though, Huurre, Eerola, Rahkonen, & Aro, 2007).

The operational definition of SES also can affect the results. While Ross and Mirowsky (1989) observed a positive association between education and social support, they also found that support and family income were entirely unrelated. More recently, Mickelson and Kubzansky (2003) found that education and income were independently and positively related to emotional support when different sources of support were combined, although the effects of income were observed primarily in terms of substantially diminished levels of support at the lowest levels. Research on education and social capital points to the possibility that education benefits support due in part to an enhancement of social, language, and communication skills that are useful in social interactions (Glaeser, Laibson, & Sacerdote, 2002).

Finally, the association of SES and social support is sometimes contingent on the group under study. For example, Beatty, Kamarck, Matthews, and Schiffman, (2011) assessed the developmental importance of childhood SES on adult experiences of social support. They found that supportive interactions, reported in real time using electronic diaries, were positively associated with childhood

SES, as were global perceptions of social support and reports of general network involvement. These associations remained when adult SES was controlled. They were observed, however, only for African-Americans; no effect of childhood SES among Whites was found.

Though the relationship of social support to SES is quite consistent in the literature, the extent to which support explains the SES gradient in well-being is less clear. For example, Turner and Marino (1994) indicated that social support differences explained only about 15% of SES differences in depressive symptoms and virtually none of the observed SES variations in depressive disorders. Similar results were found for depressive symptoms more recently by Huurre and colleagues (2007). Thus, childhood and adult SES appear to be important predictors of social support, but the extent to which the accumulation of these resources explains SES differences in mental health is limited.

Race/Ethnicity

In terms of the distribution of social support across social statuses, race and ethnic groups have been comparatively understudied. Some evidence suggests that racial and ethnic minorities rely on informal sources of support, primarily family members, because of social barriers to access to other advantageous social connections (Landale, Oropesa, & Bradatan, 2006). This tendency has been ascribed, in particular, to Latinos in the USA and the term *familism* has been applied to the close ties among members of large kin networks in the Latino community (Vega & Miranda, 1985).

Using data from a large probability sample of Chicago residents, Almeida, Molnar, Kawachi, and Subramanian (2009) examined the distribution of levels of perceived social support across race/ethnicity, nativity, and SES. Latinos, and in particular Mexican-Americans, reported the highest levels of familial social support. Non-Latino Whites reported the lowest levels, with Blacks in the middle. Interestingly, the Latino advantage was attenuated with distance from circumstances characteristic of initial immigration. Specifically, the advantage largely disappeared among Latinos living in English-speaking households and the SES-familial social support gradient among Latinos was negative. That is, familial support decreased with increasing SES—a finding opposite to that observed for Blacks and non-Latino Whites. These findings are consistent with the familism hypothesis.

In contrast to familial social support, Latinos reported the lowest levels of friend support. Non-Latino Whites reported the highest levels with Blacks again in the middle. A strong positive SES gradient with friend support existed across the race/ethnic groups, indicating that access to nonfamilial supportive networks is another resource accruing differentially to the socially advantaged.

Some apparent race/ethnic differences in social support could be measurement artifacts. If questions asked about social support are interpreted differently across groups, or if there are cultural differences in the tendencies to endorse a social support item at similar levels of actual support, then biased estimates of race/ethnic differences could result. Sacco, Casado, and Unick (2011) assessed differential item functioning (DIF) across five race/ethnic groups in the USA. DIF assesses differences across groups in the propensity to endorse particular items at the same levels of the underlying latent construct—in this case, social support. These researchers found DIF for every item in their perceived support measure—Blacks and Hispanics responding differently than Whites. However, it is important to note that these groups showed lower levels support relative to Whites on the unadjusted measure, a finding opposite to those cited above. Thus, it appears that the presence of DIF across race/ethnic groups is likely to be very different depending on the social support measure used.

Overall, this research suggests that race and ethnicity are important factors in the distribution of social support, particularly in intersection with SES. Differences in social support across these groups are important considerations in the study of the epidemiology of mental health. Researchers should be mindful of the potential for cultural differences in response tendencies to questions about social support. Finally, more research examining the role of social support in race/ethnic differences in mental health is needed.

Further Considerations

Social Integration Versus Relationship Content

In a critical review of the social support literature published more than two decades ago, House et al. (1988) emphasized the importance of assessing social integration (the existence and structure of social relationships) independent of relationship content (quality and valence of the relationships, reliability of support, etc.) Separate assessment of these two constructs facilitates an examination of the processes through which social relationships translate into the experience of social support, and the structural factors that influence these processes. The reviewed evidence, they argued, supports the proposition that the presence of social relationships have important effects on health and well-being separately from, and irrespective of, the content of those relationships.

Recent findings on the issue are mixed. Analyzing data from large epidemiological surveys in the USA and Taiwan, Son, Lin, and George (2008) found that levels of social integration had substantially weaker associations with depression than did the presence of a close confidant. Falci and McNeely (2009), in contrast, found that network size was importantly related to depressive symptoms in adolescents independent of the presence of a confidant. Interestingly, the relationship was not linear—social networks that were unusually large and unusually small were both related to elevated symptoms. However, low perceptions of friend support only mediated the adverse effects of small networks.

If the mere presence of social relationships enhances health and emotional well-being, irrespective of the supportive content of the relationships, then mechanisms for such an effect need to be considered and examined—mechanisms that do not involve cognitive appraisal or behavioral coping. For physical health, Umberson (1987) has suggested that social networks act to facilitate health-promoting behaviors (diet, exercise, etc.), both through the instrumental assistance they provide and by restricting noxious behaviors (smoking, drinking, etc.). Antonovsky (1979) has suggested a more general mechanism in which social integration is an important contributor to an individual's "sense of coherence." Sense of coherence, in Antonovsky's view, diminishes reactivity to stress and is an important component of psychological well-being in its own right. Finally, the direct neuroendocrine sequelae of contact with other human beings, and the health consequences of these reactions, is a growing area of investigation and one that clearly deserves attention (Kiecolt-Glaser, Gouin, & Hantsoo, 2010).

Negative Aspects of Social Relationships

Researchers in the area of the sociology of mental health, particularly those working within the stress process paradigm, generally consider the negative aspects of social relationships to be a component of stress exposure (Pearlin, Menaghan, Lieberman, & Mullan, 1981). In this conceptualization, exposure to social negativity—criticisms and/or unreasonable expectations from socially significant others—is potentially moderated by social support and other personal resources (see, recently, Thoits, 2011). However, if we view social support as a factor on which we hope to intervene to improve population mental health, then it is important to be mindful of the potential adverse effects of social interactions.

The available evidence suggests that such adverse effects can be substantial. Examining data from the National Comorbidity Study, Bertera (2005) found that social negativity was associated far more strongly with episodes of anxiety and mood disorders than was positive support. Furthermore, social negativity effects were pervasive across all sources of social interaction—friends, relatives, and spouses. Positive support, in contrast, was only associated with fewer episodes when it came from relatives, not from spouses or friends. Using data from a large survey of adults over the age of 50 in

Great Britain, Stafford, McMunn, Zaninotto, and Nazroo (2011) also found that the adverse effects of negative social exchanges (in this case on levels of depressive symptoms) were pervasive across social relationships. In their data, positive exchanges only had beneficial effects when they involved spouses and children, not when they came from other relatives or friends. The comparative importance of negative interactions is even more dramatic in data from a US national sample of elderly African-Americans (Lincoln et al., 2010). In this study, emotional support was unrelated to the odds of a lifetime diagnosis of anxiety or depression. In contrast, negative interactions were strongly related to an increased likelihood of both outcomes.

Among the above citations, only the study by Stafford and colleagues had the benefit of longitudinal data. The other studies were cross-sectional and thus the causal order of the documented associations is unclear. It is quite plausible that individuals with anxiety or depression are more likely to have negative social interactions or, alternatively, to interpret ambiguous interactions as negative. In their longitudinal study of older adults, however, Newsom, Nishishiba, Morgan, and Rook (2003) examined the association of positive and negative social exchanges to positive and negative affect, both cross-sectionally and longitudinally. Cross-sectionally, the associations were valence-specific—that is, negative social exchanges were associated with negative affect and positive social exchanges with positive affect. The longitudinal analysis provided a very different picture. Positive social exchanges were not related to subsequent changes in either outcome. In contrast, negative social exchanges were associated both with subsequent increases in negative affect and with subsequent reductions in positive affect.

August, Rook, and Newsom (2007) examined the joint effects of negative social exchanges and stressful life events. Negative social exchanges were more strongly associated with emotional distress when they occurred in the context of a major stressful experience. The interesting exception was relationship loss. Negative social interaction actually showed reduced effects on emotional distress in the context of a relationship loss, a finding the investigators surmise was due to the reduced salience of negative interaction in the context of such a loss, or to a greater appreciation for remaining relationships that makes negative interactions less stressful. In any case, it seems clear that any attempt to understand the stress-buffering effects of social relationships, as opposed to perceived social support, will obtain misleading results if the adverse aspects of relationships are not considered commensurately.

Reciprocity: Giving Versus Receiving Social Support

All of the research cited thus far in this chapter examines social support entirely from the perspective of its impact on the mental health of the support recipient. Clearly, however, for each recipient of social support, there are one or more support providers. Furthermore, social support is likely to flow in both directions in most relationships. Thus, if we truly want to understand the role of social relationships in the mental health of populations, we presumably have to understand the emotional effects of giving, as well as of receiving, social support.

Research in the area is currently quite limited. The available research, however, is convincing in showing that the effects of providing support on mental health are importantly conditioned by the amount of support received. For example, as part of their examination of the effects of giving and receiving support in an elderly population, Liang, Krause, and Bennett (2001) tested three alternative hypotheses. First, the *equity* hypothesis (Hatfield, Walster, & Bershcheid, 1978) predicts that the largest mental health advantage will accrue to support providers who receive equal support in return. This hypothesis is based on the assumption that those who over-benefit in a social exchange will feel guilty about it and/or will have their self-esteem damaged by a sense of dependency, while those who under-benefit will feel exploited. Second, the *exchange* hypothesis (Bershcheid, Walster, & Hatfield, 1969) predicts that those who over-benefit will be the least depressed because their rewards are maximized, and under-benefiters will be the most depressed. Third, the *esteem enhancement* hypothesis (Batson, 1998) predicts that under-benefiters will be in the best mental health because providing help elevates their self-image, while over-benefiters will be most depressed because of the attention that received support shines upon their need. The analyses presented by Liang and colleagues (2001) clearly support the esteem enhancement model. More recent analyses (Thomas, 2010) also are consistent with this finding.

The two studies cited above involved cross-sectional data. Thus, once again, a selection interpretation is readily available—that individuals in the best mental health are those most able and willing to provide support, while depressed individuals not only are less able to provide support, but are also the most likely to elicit it because of the distress they display. Nahum-Shani, Bamberger, and Bacharach (2011), however, have recently conducted an elegant analysis of longitudinal data on employed, middle-aged adults. These researchers find that received emotional support is strongly associated with reduced symptoms of depression when the support exchange is perceived as reciprocal—that is, when reported levels of received and given support match. The benefits of received support are still present, but attenuated, when the individual reports under-benefiting. In the context of over-benefiting, received support is not helpful; in fact, it is associated with subsequent elevations in depression.

Taken together, the findings from these studies make it clear that receipt of visible support has negative effects on mental health when the recipient feels they are not adequately reciprocating. However, findings from the diary studies (e.g., Bolger et al., 2000) and experiments (Bolger & Amarel, 2007) discussed earlier suggest that over-benefiting may be good for mental health if most of the received support is not recognized. Clearly, this is an area worthy of focus within the sociology of mental health, one that might profitably borrow theoretical perspectives from the larger social psychology literature.

Interventions and Levels of Analysis

Part of the attractiveness of social support to social researchers derives from the view that it is amenable to intervention. Indeed, the dominant research question of the social support field, buffering versus main effects, has been motivated partly by the goal of identifying appropriate intervention targets based on need. But is the idea of targeted intervention the most useful one? Even if the preponderance of the individual-level influence of social support is due to stress buffering, the largest public mental health effects may be more likely to result from macro-level changes addressed to the social integration of communities. By definition, macro-level changes are, in Ryan's (1971) terminology, "universalistic" rather than "exceptionalistic." Exceptionalistic interventions can only benefit those who are specifically targeted. In contrast, the influence of macro-level dimensions of social contact (social integration, community-level social cohesion, and connectedness) on health and well-being tends to be discernible largely or wholly at an aggregate level of analysis. For example, Lynch (1977), commenting on the substantial differences in coronary heart disease (CHD) mortality and morbidity rates between Framingham, Massachusetts, and Reno, Nevada, attributed the contrast to the fact that Reno residents were predominately recent arrivals and had few ties to the community. Framingham's population consisted primarily of lifetime residents with strong community ties. However, it does not necessarily follow, as Lynch argued, that geographically mobile, less socially connected individuals have a greater risk of CHD. It may instead be that lack of social cohesion and connectedness at the community level has noxious effects on the community as a whole, irrespective of individual social circumstances. Durkheim (1951) explained and understood his findings on the correlates of suicide risk at this level of analysis.

Umberson and Montez (2010) discuss the policy implications of our knowledge regarding the health benefits of social ties. Noting that positive marital interaction fosters health and well-being for children as well as for their parents, they praise the Healthy Marriage Initiative which includes public awareness campaigns on healthy marriages and responsible parenting as well as educational and counseling services. Noting that the health consequences of social isolations are well-documented and potentially severe, they advocate enhancement of the educational system so as to impart social-emotional skills and promote civic engagement. They also argue for policies to assist caregivers because the burdens and negative features of social ties are not randomly distributed in the population. While ambitious, however, most of the policies suggested are essentially exceptionalistic, often involving identification of, and outreach to, socially isolated individuals in the community. Umberson and Montez (2010) correctly point out that very little is yet known about the ways in which the larger social context shapes social ties. Hence, social policies that might foster, in a universalistic way, improvements in the quality of social life are not yet widely available.

It is possible, however, to examine the characteristics and social policies of societies doing very well in terms of emotional well-being. For example, large international surveys consistently place Denmark among the happiest countries in the world. In this country, 92% of the population belong to government-funded social clubs (Buettner, 2010), at least suggesting an avenue for a large scale policy intervention for the improvement of social ties and social integration.

Conclusions

Despite the huge body of research on social support, much remains to be learned about how and why social support matters for health and well-being, and about the circumstances and processes that promote and enhance its availability and effectiveness. Several conclusions, however, are warranted from available evidence.

1. The ever-growing number of studies and reviews on the subject leave little doubt that social support is importantly associated with mental health status in general, and depression in particular.
2. Social support tends to matter for psychological distress and depression independent of the level of stress exposure. However, it tends to matter most to both individuals and communities where stress exposure is relatively high.
3. Perceived availability of social support tends to be much more strongly related to psychological distress and depression than reports of support actually received.
4. The modest associations of actual received support to mental health outcomes may indicate that the greatest emotional benefits accrue from supportive actions that are not recognized as support by recipient. Indeed, receiving visible support appears often to have adverse effects on mental health.
5. An expanded focus on the mental health relevance of social ties, and on ways to intervene to improve social support, requires that we be mindful that social relationships have negative as well as positive components. Moreover, it is likely that the importance of social support for mental health is contingent on reciprocity within social relationships.
6. Levels of social support vary reliably with location in the social system as defined by SES, marital status, gender, and race/ethnicity. These patterns suggest that the experience of being supported by others arises substantially out of social experience. Evidence indicating that social support explains status-based differences in mental health is more limited, however.

In summary, when considering the issue of social support and mental health, it is useful to acknowledge that most causes and effects in human affairs are likely to be reciprocal in nature. In the present case, evidence suggests that the perceived availability of social support has important consequences for distress and depression. At the same time, it is probable that one's mental health status and personality characteristics affect the availability of social support and the ability or tendency to experience the support that is available. Social support is important for mental health, but a variety of social and psychological conditions are important influences on social support. Additional research that clarifies the causal ordering of these relationships and their interrelated nature is critical for an understanding of the social bases of mental health.

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Chapter 18
Self, Identity, Stress, and Mental Health

Peggy A. Thoits

The Relevance of Self and Identity Issues to Stress and Mental Health

It is virtually impossible to develop a theory of the etiology of mental illness without thinking about self and identity issues. Almost all approaches in psychiatry and clinical psychology (with the exception of behaviorism) view individuals' mental health as at least partly influenced by positive self-conceptions, high self-esteem, and/or the possession of valued social identities. Conversely, psychological disorder has been attributed to unconscious conflicts within the individual's personality (Freud, 1933), arrested or inadequate identity development (e.g., Erikson, 1963; Freud, 1933), threats to self-conception or self-esteem (e.g., Abramson, Metalsky, & Alloy, 1989), and identity loss (Breakwell, 1986; Brown & Harris, 1978; Thoits, 1986), among many related processes. Some theorists and researchers see injuries to identity or self-worth not only as precursors but as key *markers* of mental disorder (e.g., Abramson et al., 1989; Beck, 1967). This can be seen in the criteria for various mental disorders in the Diagnostic and Statistical Manual of Mental Disorders IV (American Psychiatric Association, 2000). "Low self-esteem," "feelings of worthlessness," and/or "unstable self-image" are central criteria in the identification of major depression, bipolar disorder, dysthymia (chronic depressed mood), and borderline and avoidant personality disorders, for example.[1]

Compared to the considerable theoretical emphasis placed on self and identity factors by psychiatrists and clinical and social psychologists, sociology's dominant etiological approach to mental disorder, stress theory, has given far less theoretical and research attention to self and identity constructs and processes. In its simplest form, stress theory traces mental disorder to situational demands, that is, to challenges and threats originating outside the person. Numerous challenges and threats are thought to overwhelm the person's coping resources or coping abilities, producing symptoms of psychological distress or more serious forms of mental disorder (see Chap. 16). Despite the theory's focus on external or situational causes, researchers have been finding it necessary to incorporate self and identity concepts in order to explain stressors' psychological impacts.

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[1] Manic and hypomanic episodes (aspects of bipolar disorder) and narcissistic personality disorder, on the other hand, include states of inflated self-esteem or grandiosity. Baumeister, Campbell, Krueger, and Vohs (2003) argue compellingly that high self-esteem is not always a good thing.

P.A. Thoits (✉)
Department of Sociology, Indiana University, Bloomington, 744 Ballantine Hall,
1020 E. Kirkwood Avenue, Bloomington, IN 47405, USA
e-mail: pthoits@indiana.edu

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Why have stress theorists had to think about self and identity? There are at least two reasons. First, about 35 years of research has shown that major life events and chronic strains in people's lives generally have *nonspecific* impacts. That is, stressors can negatively affect physical health *or* mental health (or both simultaneously). Events and strains are significantly and causally associated with the occurrence of numerous conditions, including colds, flu, asthma attacks, tuberculosis, angina, heart attacks, high blood pressure, occupational injuries, complications of pregnancy, episodes of multiple sclerosis, anxiety, depression, schizophrenia, alcohol and drug use, early death, and so on almost endlessly (e.g., Cohen, Janicki-Deverts, & Miller, 2007; Cohen & Williamson, 1991; Cooper, 2005; Hammen, 2005; Mirowsky & Ross, 2003; Turner, 2003; Turner & Avison, 2003; Turner & Lloyd, 1999, 2003; Turner, Wheaton, & Lloyd, 1995). Given this wide array of potential negative consequences, the stress theorist who wants to predict outcomes more precisely needs to find factors that narrow this range of possibilities. One crude (but useful) refinement is the ability to determine whether *physical* health or *mental* health problems are likely to result from stress exposure (Brown & Harris, 1989; Folkman, Lazarus, Gruen, & DeLongis, 1986; Lin & Ensel, 1989). Because people's self-conceptions are closely linked to their psychological states, stressors that damage or threaten self-concepts are likely to predict emotional problems, whereas stressors that place wear and tear on the body (because they require effortful readjustments in behavior) may better forecast physical disease or injury. Of course, many stressors threaten self-conceptions *and* require effortful behavioral changes, and in those cases, one would expect both emotional and physical consequences. Because emotional problems and physical health problems are only moderately correlated (Hays, Marshall, Wang, & Sherbourne, 1994; Manning & Wells, 1992), identifying variables that lead to these differing broad outcomes still helps to refine our explanatory models.

A second reason why it has become necessary to incorporate self/identity issues into stress research concerns the conditions under which stressors have psychological impacts. Not all persons who experience multiple negative events or chronic strains react with emotional disturbance. Research shows that flexible and situationally appropriate coping strategies (Folkman, 1984; Mattlin, Wethington, & Kessler, 1990) and coping resources such as high self-esteem, a sense of mastery or control, and social support (Taylor & Aspinwall, 1996; Taylor & Stanton, 2007; Uchino, 2004) can buffer or reduce the negative psychological impacts of stressors (see also Chaps. 17 and 19). Upon closer inspection, each of these stress-buffering factors has important self aspects. Coping strategies can shore up threatened perceptions of self. High self-esteem can give individuals the confidence necessary to attempt problem-solving or to persist in their efforts. And the perception that social support is available helps to sustain a person's self-worth and sense of mattering to others, again encouraging coping efforts.

In sum, it often seems necessary to include self or identity factors when trying to distinguish stressors' physical effects from their psychological ones and when trying to explain why some people are emotionally disturbed by stress experiences while other people seemingly are not. This chapter scrutinizes developing theoretical ideas, empirical findings, and still-unanswered questions about the influences of self and identity factors in the stress process.

Definitions of Self and Identity

Up to this point, I have used the terms "self" and "identity" loosely, without definition. It is important to clarify the meaning of these terms before turning to their roles in stress theory. How these notions are measured will be described below where appropriate.

Three major features of self can be distinguished: "the self," "selves/identities," and "self-esteem." "The self" is that aspect of the person that has experiences, reflects on experiences, and acts upon self-understandings derived from experiences (Gecas & Burke, 1995; McCall & Simmons, 1978; Weigert, Teitge, & Teitge, 1986). We generally perceive our "self" as unified, singular, and whole.

However, we are also aware of and can behave in terms of our "social selves," also called "identities," "self-concepts," or "self-conceptions." These are more specific understandings of the self and our experiences in the world, for example, as a Californian, a woman, and a student. These specific selves or identities are essentially parts of the self as a whole. In general, selves, identities, or self-concepts (terms I will use interchangeably) are understandings of ourselves as *specific objects* that can be named or classified (e.g., Frank, an atheist, a gardener). In contrast, "self-esteem" (also termed "self-regard," "self-worth," and "self-evaluation") is an understanding of one's *quality* as an object—that is, how good or bad, valuable or worthless, competent or incompetent, or superior or inferior one is. Self-esteem may be global ("I am a good person") or domain-specific ("I am pretty good at softball").

Sociologists are particularly interested in self-conceptions and self-evaluations that are socially derived and socially sustained. Symbolic interactionist theory (Blumer, 1969; Cooley, 1902; McCall & Simmons, 1978; Mead, 1934; Stryker, 1980) outlines the social origins of the self and its development (as well as the development of more specific selves/identities). Because most sociological stress researchers draw from this theory, a quick synopsis of this approach is in order.[2]

Symbolic Interactionist Approaches to the Self

Very generally speaking, symbolic interactionism sees both society and the self as created, maintained, and changed through the process of communication (i.e., symbolic interaction). Because communication depends upon shared symbols and shared symbols have the same general meanings to those who use them, people are able to "take the role of the other" when they interact (Mead, 1934). Putting it another way, because we know that others attach roughly the same meaning to our words and gestures as we do ourselves, we can imaginatively anticipate their responses to our communications; we can shift perspectives from our own to theirs and then back again. Thus, language not only gives us the ability to classify, think about, and act toward meaningful objects in the world but it also enables us to reflect on the self as an object from the perspective of other people—this is role-taking. Quite literally, through shared language, other people give us knowledge that we exist and have meaning.

We personally experience and act on our lives in the natural world. But we also reflect on ourselves from the perspective of other people and/or the generalized community. For this reason, Mead (1934) found it useful to distinguish between the "I" and the "me" aspects of self. The "I" is the active, creative agent doing the experiencing, thinking, and acting—"the self" as described earlier. The "me" is the perspective on oneself that one assumes when taking the role of specific others or of the general community (Mead, 1934). Because there are multiple "others" from whose eyes we see, we usually have multiple "me's." In William James' famous explanation (1890/1950, p. 294, emphases in the original), "*a man has as many social selves as there are individuals who recognize him and carry an image of him in their mind*…. But as the individuals who carry the images fall naturally into classes, we may practically say that he has as many different social selves as there are distinct *groups* of persons about whose opinion he cares." Mead's "me's" are our more specific social "selves" or "identities."

Selves or identities, then, are social categories that individuals learn in social interaction and accept as self-descriptive and self-defining. In essence, selves or identities are answers to the question "Who am I?" Answers typically refer to (a) sociodemographic characteristics that we hold (e.g., middle aged, African-American), (b) groups or organizations to which we belong (member of Little League, Episcopalian), (c) social roles that we possess (stepmother, physician), (d) social types of person that we are (intellectual, leader), and (e) personality or character traits that we display (optimist, responsible)

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[2] Readers interested a detailed history of self and identity terms, variations in their meanings, and their roles in theory will find Weigert et al. (1986) a valuable source.

(Thoits & Virshup, 1997). We learn these categories from our society through shared language, and we learn to apply them to ourselves by taking the role of the other and by having our selves/identities validated by other people in social interaction (McCall & Simmons, 1978). These notions of self/identity play an important role in stress theory, as will be seen below.

Some theorists prefer to distinguish selves from identities (e.g., Gecas & Burke, 1995; McCall & Simmons, 1978; Weigert et al., 1986). For these theorists, selves refer to private self-definitions, whereas identities refer to who or what one is in the eyes of other people—public definitions. I generally treat the terms "selves" and "identities" as equivalent because people typically invest themselves in their identities, so that private selves and public identities become two halves of the same coin. Nevertheless, the distinction is especially useful when private and public definitions of self do not correspond, for example, when one has been mistakenly labeled as a certain kind of person by others (e.g., thief), when one has imaginatively taken on a self-conception of which other people are unaware (e.g., poet), or when others emphasize the importance of a characteristic that one does not see as relevant (e.g., "Hispanic teacher" as opposed to "teacher"). In these cases, the term "identity" refers to the definitions that *other people* apply to the person.

Like selves/identities, self-esteem also is acquired and sustained in social interaction with specific and "generalized" others (Blumer, 1969; Cooley, 1902; Mead, 1934). We not only see who and what we are as we imaginatively share the reactions of others to us, but we see how good or bad we are from observing or imagining their reactions as well. Cooley described the result of this role-taking process as "the looking-glass self"—we see ourselves mirrored or reflected in the eyes of other people. Self-esteem that is derived from others' reactions (or, more accurately, from our somewhat biased *perceptions* of others' reactions) is termed "reflected" or "reflexive" self-esteem, because we tend to accept and share the opinions of our worth that others communicate either verbally or nonverbally.[3] Symbolic interactionism assumes that other people's positive regard for us or for our role performances is rewarding (McCall & Simmons, 1978). In sharing others' favorable opinions about us, we feel pleasantly good about ourselves. Positive reflected self-esteem, in turn, motivates us to keep trying to meet people's behavioral expectations (which we continue to anticipate through role-taking).[4] In sum, our sense of self, our identities, and our self-esteem are derived, at least in part, from social relationships and are sustained in social interaction. Not surprisingly, then, stressors that disrupt or damage relationships with other people may have negative consequences for the self—a topic to which we will return below.

To this point, I have described symbolic interactionist theory in broad strokes. More specific versions of this approach to self have been applied to problems in stress theory. We turn now to an examination of those more specific applications.

The Roles of Self/Identity Factors in the Stress Process

Ideas about self have been introduced at several points in the stress process. Self and identity factors are thought to play a part in stress appraisal, stress mediation, stress moderation, and processes of coping and support-giving. Each point will be examined in turn, with special attention to empirical findings and as-yet unanswered questions.

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[3] Self-esteem is only moderately correlated with others' evaluations (e.g., May, 1991) for two reasons. First, we tend to perceive others' opinions of us through rose-colored glasses (e.g., O'Connor & Dyce, 1993), which weakens the association between our own self-regard and others' true evaluations. Second, we can assess our abilities or worth independently through social comparison processes (e.g., Gecas & Schwalbe, 1983; Suls & Wills, 1991); others' evaluative feedback may not match our own assessments of our relative ability or worth.

[4] Hence, our socially based selves/identities and our reflected self-esteem motivate conformity—sustaining and perpetuating the social order. However, the potential for unpredictability, creativity, and deviance is always present in the "I" aspect of the self (Blumer, 1969).

Stress Appraisal

Earlier studies showed that the relationship between stress exposure and psychological symptoms was not strong (Avison & Turner, 1988; Thoits, 1983a; Turner et al., 1995), and people's emotional reactions to what appear to be the same objective events were strikingly variable (e.g., Reissman, 1990; Umberson, Wortman, & Kessler, 1992; Wortman & Silver, 1987). These findings led researchers to hypothesize that the psychological impacts of stressors must depend on their *meanings* to the individual, where meanings may vary substantially. (Brown and Harris [1978, 1989]) had this insight long ago and have developed elaborate strategies to assess stressors' meanings.) Attention turned to the problem of defining and measuring meaning (Simon, 1997).

Sociologists have tended to focus on the social contexts that give stressors their meaning (Brown & Harris, 1978, 1989; Dohrenwend, Raphael, Schwartz, Stueve, & Skodol, 1993; Wheaton, 1990a, 1990b) or how people's beliefs or value systems influence the meaning of events (Park, 2010; Park & Folkman, 1997; Reissman, 1990; Simon, 1995). More commonly, sociologists (and psychologists too) have generally followed the lead of Lazarus and Folkman (1984) and examined people's subjective appraisals of stressors.[5] Lazarus and Folkman suggested that the impact of situational demands depends upon how they are perceived—as harms/losses, threats, or challenges—and whether they are viewed as controllable or uncontrollable in nature (Folkman, 1984).

A closer reading of Lazarus and Folkman's widely-accepted definition of stress indicates that they view stress as an appraisal of harm/loss, threat, or challenge *to the self*. Stressors are perceptions that one personally has been physically or psychologically damaged (harms/losses), that one personally is in imminent danger of physical or psychological damage (threats), or that one personally faces minor but still potentially hazardous demands that must be met (challenges). Individuals react with degrees of tension, anxiety, despair, and/or upset to the *self-implications* of unmet demands, not just to the sheer volume or magnitude of demands for behavioral change, as suggested in earlier conceptions of stress (e.g., Holmes & Rahe, 1967).

In essence, stress appraisals might be seen as signals to the self about the adequacy of one's "person-environment fit" (French, Rodgers, & Cobb, 1974). Burke (1996) takes this idea a step further, suggesting that all social stressors could be reconceptualized as "identity-interruptions." He argues that any feedback from the social environment that is inconsistent with (interrupts) an individual's self meanings or identity standards will provoke anxiety or tension. However, in my view, it is probably sensible to retain the notion of stressor as a distinct concept and to consider inconsistent feedback about the self as an important *subset* of life's major events, ongoing difficulties, or hassles. As mentioned earlier, many stressors require substantial behavioral readjustments (e.g., moving residence) but do not necessarily involve threats to the self. An accumulation of events that compel behavioral changes may have negative physical health consequences, whereas stressors that implicate the self may primarily impact mental health.

A number of mental health researchers have picked up this lead from Lazarus and Folkman's conception of stress and asked what is it about the self that the individual believes has been harmed, lost, threatened, or challenged? They converged on a similar answer: *an important or valued* self-conception. Stressors that harm or threaten individuals' most cherished self-conceptions should be seen as more threatening and, thus, more predictive of psychological distress or disorder than those affecting less cherished aspects of the self (Brown, Bifulco, & Harris, 1987; Hammen, Marks, deMayo, & Mayol, 1985; Hammen, Marks, Mayol, & deMayo, 1985; Oatley & Bolton, 1985; Thoits, 1991, 1995).

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[5] One must be careful with this strategy because a person's current psychological state can influence his subjective reports about the events and difficulties in his life; his stress appraisals may be a product of the very outcome (his psychological state) that the researcher is attempting to explain.

This idea has been central in my own work. Drawing from symbolic interactionism, I have argued that individuals obtain important psychological benefits from their social identities, especially from those based in social roles. Roles are positions in the social structure, to which are attached sets of normative behavioral expectations or "scripts" for carrying them out. When individuals invest themselves in their roles, they not only gain a sense of who they are as meaningful social objects but of what they should do and how they should behave in given situations, as well. From other people's approval (or disapproval) of their role-identity enactments, people also obtain feedback on how well they are performing. Existential meaning, behavioral guidance, and social approval, in turn, should prevent anxiety, despair, and disorganized conduct and should maintain or even raise self-esteem. In short, having and enacting multiple role-identities should be beneficial to mental health—and in fact, considerable research suggests that they are (Ahrens & Ryff, 2006; Barnett & Hyde, 2001; Kikuzawa, 2006; Miller, Moen, & Dempster-McClain, 1991; Moen, Dempster-McClain, & Williams, 1992; Pietromonaco, Manis, & Frohardt-Lane, 1986; Repetti & Crosby, 1984; Thoits, 1983b, 1986, 1992, 2003). However, it should be noted that voluntary roles (roles that are relatively easy to exit if their costs begin to exceed their rewards) are more strongly related to mental health than obligatory roles (roles that are difficult to exit because they involve strong normative demands and/or intense emotional ties, such as family and work roles) (Thoits, 2003). Obligatory roles are beneficial to mental health only when they involve few stressful experiences (Thoits, 1992).

People do not view their role-identities as equally valuable, however. Some social selves are more important than others. McCall and Simmons (1978) have suggested that people organize their role-identities in a "prominence" hierarchy. The prominence of any one identity depends on how rewarding it is, calculated as a weighted sum of the degree to which others positively support the identity, the degree to which one is personally committed to and invested in the identity, and the intrinsic and extrinsic gratifications gained through competent role performance, among other benefits. Similarly, I have argued that people order their identities in terms of their subjective importance or salience, where salience depends on each identity's prestige or reward value (Thoits, 1992). Rosenberg (1979) describes this as the "psychological centrality" of an identity to the person. Stryker (Stryker, 1980; Stryker & Serpe, 1982) suggests that role-identities are arranged by degree of commitment, where commitment refers to the degree to which a role is embedded in a large or emotionally significant network of social ties.[6] In general, the higher an identity in a person's prominence, salience, centrality, or commitment hierarchy, the more he or she will want to enact that identity, and the more psychological benefits he/she should obtain from competent role-identity performance (Thoits, 1992, 1995).

It follows from these considerations that losses of, damages to, and/or challenges to highly valued identities should be appraised as more threatening and thus be more psychologically harmful than similar assaults on less valued identities. Stated more generally, the more an individual identifies with, views as salient, or is committed to a particular self-conception, the greater should be the emotional impact of stressors that occur in that domain. Variations of this "identity-relevant stress hypothesis" have been proposed by several researchers (Brown & Harris, 1978; Brown & McGill, 1989; Burke, 1996; Hammen, Marks, deMayo, et al., 1985; Hammen, Marks, Mayol, et al., 1985; Oatley & Bolton, 1985; Swann, 1997).

Despite its intuitive appeal, tests of the identity-relevant stress hypothesis have produced mixed findings. Some studies provide support for the hypothesis (Brown et al., 1987; DeGarmo & Kitson, 1996; Hammen, 2005; Hammen, Marks, deMayo, et al., 1985; Hammen, Marks, Mayol, et al., 1985; Krause, 1995; Reilly, 1994; Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Some studies offer partial support, reporting that a few—but not all—combinations of high identity salience/

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[6] Stryker argues that identity commitment in turn determines identity salience, which in his theory refers not to importance but to the likelihood that an individual will call up a particular identity when he or she has freedom of choice, for example, when introducing himself/herself to someone new or when spending leisure time.

commitment with experienced stressors in an identity domain heighten individuals' distress, depression, or alcohol use (Frone, Russell, & Cooper, 1995; Luchetta, 1995; Marcussen, Ritter, & Safron, 2004; Martire, Stephens, & Townsend, 2000; Simon, 1992). Still others report no confirming evidence for the hypothesis at all (Greenberger & O'Neil, 1993; Thoits, 1992, 1995). Unexpectedly, a few investigations have uncovered scattered buffering effects of identity salience/commitment rather than exacerbation effects—in other words, high levels of role identification *softened* the negative impacts of identity-relevant stressors on mental health instead of strengthening them (Luchetta, 1995; Martire et al., 2000).

A related literature has examined the influence of a positive, valued racial identity on appraisals of racial discrimination (a stressor). Persons whose racial identities are positive and psychologically central report more experiences of racial discrimination (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006; Sellers & Shelton, 2003). This finding hints that racial identity salience sensitizes individuals to unfair treatment on the basis of race and ought to heighten the harmful impacts of those discriminatory experiences on their mental health. Yet, the findings regarding this hypothesis are just as mixed as for role-identities. In most studies, racial identity centrality neither exacerbates nor buffers the consequences of unfair treatment on mental health (see reviews in Brondolo, ver Halen, Pencille, Beatty, & Contrada, 2009; Sellers & Shelton, 2003; Sellers et al., 2006). In a few studies, a strong positive racial or ethnic identity intensifies the relationship between discrimination and distress (Lee, 2005; Noh, Beiser, Kaspar, Hou, & Rummens, 1999), consistent with the identity-relevant stress hypothesis, but in a handful of others, identity centrality instead buffers the association between discrimination and distress, contrary to the hypothesis (Mossakowski, 2003; Sellers et al., 2003).

Studies of women's "burdens of caring" also offer some support for the identity-relevant stress hypothesis, although the evidence is indirect. Kessler and McLeod (1984) drew from the gender-role literature (e.g., Belle, 1982; Gove, 1984) to argue that women's interpersonal orientations and their socialization into nurturing roles should make them emotionally more reactive to "network events," that is, stressful events that happen to family members and friends about whom they care. With data from five large community surveys, Kessler and McLeod demonstrated that women's higher psychological distress and emotional vulnerability to negative life events relative to men could be attributed in large part to women's higher exposure to network events alone. Some studies have replicated this finding (Turner & Avison, 1989); others have not (Thoits, 1987). The central problem with these studies is that they *presume* that nurturing roles are important to women's identities rather than assessing the degree to which women actually view themselves as nurturing or as caregivers/supporters. If the identity-relevant stress hypothesis were correct, only women who attach high importance to caring for others should be more psychologically vulnerable to network events than men. Furthermore, men whose salient self-conceptions include caring for others should be more psychologically vulnerable to network events compared to other men and to women for whom nurturance is not especially salient. These more specific hypotheses are yet to be tested. A search of the literature suggests that interest in women's vulnerability to network events declined swiftly in the late 1980s, despite the fact that subsequent studies established the greater importance of interpersonal relationships for the psychological well-being of girls and women (Gore, Aseltine, & Colten, 1993; Rosenfield, 1997; Chap. 14).

In general, it should be clear that tests of the identity-relevant stress hypothesis have produced widely divergent findings. Some studies are confirmatory, some find only partial support, others report no support, and still others show that identity salience unexpectedly buffers instead of intensifies the impacts of identity-relevant stressors on well-being. The effects of role-identity and racial/ethnic-identity salience are far more complex than theorists have anticipated. There are several possible explanations for this rather dismaying array of findings.

First, and most obviously, a wide range of measures of identity salience, centrality, and/or commitment have been employed, making results across studies almost impossible to compare directly. Additionally, investigations vary in the stressors on which they have focused: negative life events, chronic strains, or discriminatory treatment. And outcome variables also have differed across studies: psychological distress, depressive symptoms, anxiety symptoms, measures of well-being, physical health, and alcohol use. Given all three sources of variation in measures among studies, it becomes difficult to discern a coherent, consistent pattern of findings.

Second, virtually all studies of identity-relevant stressors have been based on survey data. Checklists of life events and standardized questions about ongoing strains in various role domains may not be sufficient to capture the meaning of these stressors to the individuals who experience them. For example, for someone whose "father" identity is highly salient, a son's leaving home to start college differs dramatically in its identity implications from a son's leaving home as a runaway. Survey data rarely enable such detailed distinctions among stressors, in this case, a child leaving home. Careful assessments of the context and meaning of life events and chronic strains may be needed to specify more precisely those which are likely to damage or threaten individuals' salient self-concepts (Brown, 1989).

Finally, and perhaps most importantly, people's self-concepts can change as a result of their stressful experiences, making the effects of identities on stress appraisal elusive to capture. When negative events pile up in a role domain, individuals often devalue the importance of the role-identity, as a self-protective coping strategy (Thoits, 1995, 2010). For example, if I have been doing poorly at school, I may downgrade the salience of my student identity. If the identity is less salient to me, then I will view any additional academic stressors as *less* threatening and these stressors should have *less* impact on my mental health than they would when the student identity was greatly important to me. These observations suggest that the identity-relevant stress hypothesis requires detailed *longitudinal* data in order to trace out the interplay between identity-relevant stress experiences and identity salience perceptions on mental health. Changes in self-conception in response to negative events may help to account for the inconsistent support that has been obtained for the identity-relevant stress hypothesis to date. We will return to this possibility below under the topic of coping.

Stress Mediation

Although the impacts of stressors on psychological well-being may depend on their appraised meaning for the self, stressors can also have direct harmful effects on people's self-conceptions. Lowered self-conceptions in turn can damage mental health. This is the process of stress *mediation*: Changes in self-conception are the mechanisms or conduits through which stressors result in psychological symptoms. In general, self-esteem and self-efficacy (or perceived control over life) are the two self factors that have most frequently been studied as variables intervening between stress experiences and mental health outcomes.[7] I review investigations of self-esteem as a stress mediator here (see Chap. 19 for the influences of self-efficacy/perceived control).

Large community studies investigating the role of self-esteem in the stress process are somewhat rare, compared to studies of other coping resources such as optimism and a sense of control or mastery. However, evidence definitely shows that negative life events and ongoing strains can decrease people's feelings of self-worth (DuBois, Felner, Sherman, & Bull, 1994; Jackson & Mustillo, 2001; Krause, 1991; Marcussen, 2006; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Skaff & Pearlin, 1992; Thoits, 1994; Turner & Lloyd, 1999). Low self-esteem in turn is associated with a wide range of mental health problems including depression, delinquency, and conduct problems (DuBois et al., 1994; Jackson & Mustillo, 2001; Kaplan, Johnson, & Bailey, 1986; Kaplan, Robbins, & Martin, 1983a,

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[7] Changes in identities are less commonly examined as intervening variables perhaps because identity losses are stressors and because weakened allegiance to an existing stress-filled identity can be understood as a coping strategy (Breakwell, 1986).

1983b; Krause, 1991; Marcussen, 2006; Orth, Robins, & Meier, 2009; Rosenberg, Schooler, & Schoenbach, 1989; Rosenberg et al., 1995; Skaff & Pearlin, 1992; Turner & Lloyd, 1999; Turner & Roszell, 1994). These patterns in findings suggest that self-esteem is a key mechanism through which negative events and chronic difficulties generate mental health problems, although longitudinal studies are needed to demonstrate definitively that stressors' effects are channeled through changes in self-evaluation.

Research on the stigma of mental illness also provides evidence that self-esteem is a stress mediator. Across studies, between 50% and 95% of persons with a serious mental disorder are aware that mental illness is stigmatized, and because of this they expect to be rejected and discriminated against by other people (Link, 1987; Link, Cullen, Struening, Shrout, & Dohrenwend, 1989; Link, Struening, Rahav, Phelan, & Nuttbrock, 1997; Rosenfield, 1997; Wahl, 1999; Wright, Gronfein, & Owens, 2000). Similarly, high percentages of persons who have a disorder report actual experiences of devaluation and discrimination in interpersonal interaction (Jenkins & Carpenter-Song, 2005; Link et al., 1997; Wahl, 1999; Wright et al., 2000). Social rejection and discrimination are stressors. Studies consistently show that such stigmatization lowers individuals' self-esteem (Corrigan, Watson, & Barr, 2006; Hayward, Wong, Bright, & Lam, 2002; Link, Castille, & Stuber, 2008; Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001, 2002; Markowitz, 1998, 2001; Wright et al., 2000; Yanos, Roe, Markus, & Lysaker, 2008), and lowered self-esteem accounts either partially or wholly for the elevated psychological distress symptoms and general life dissatisfaction of persons exposed to discrimination, even net of their prior levels of symptoms (Kleim, Vauth, Adam, Stieglitz, Hayward, & Corrigan, 2008; Markowitz, 1998, 2001; Rosenfield, 1997; Wright et al., 2000; Yanos et al., 2008).

There are interesting exceptions and variations around these general findings. For example, in contrast to the stigma of mental disorder, stigmatizing characteristics such as dark skin color, deafness, obesity, or physical disability do not consistently result in low self-esteem, and some stigmatized groups such as African Americans have equal or *higher* self-esteem than their non-stigmatized counterparts (Crocker & Major, 1989; Major & O'Brien, 2005). Crocker and Major argue that these counterintuitive findings are because stigmatized persons can attribute the negative attitudes and behaviors of other people to prejudice against their group, rather than blame themselves. Additionally, stigmatized individuals can protect their self-esteem by associating with and comparing themselves to other members of their group rather than with more advantaged, non-stigmatized others (Major & Eccleston, 2005). Further, they can selectively place value on positive aspects of themselves (e.g., their appearance, skills, or intelligence) and deemphasize disparaged aspects; again, this will protect or even enhance self-esteem. These self-protective coping strategies described by Crocker and Major may be more available to persons with physical or visible stigmas compared to people with invisible, concealable ones like mental illness or alcohol addiction; one needs an easily identifiable set of similarly stigmatized others to make group attributions or within-group comparisons possible. Still other stigmatized persons may decide instead to actively resist prejudice and discrimination by challenging other people's stereotyped beliefs and unfair treatment (Thoits, 2011b). Even when resistance is unsuccessful, confronting others requires courage and initiative. Individuals can take pride in their bravery in the face of adversity, and pride in oneself would be evident in sustained or raised self-esteem. In short, for some stigmatized persons, the stress of rejection and discrimination does not inevitably produce lowered self-regard and subsequent distress.

Beyond research on the consequences of stigma and stereotyping, other studies indicate that stressors do not always have strong or even significant effects on a person's global sense of self-worth (e.g., Orth et al., 2009; Shamir, 1986), as measured by instruments such as Rosenberg's (1979) Self-Esteem Scale (containing items such as "I take a positive attitude toward myself": "strongly agree" to "strongly disagree"). Instead, researchers find that *domain-specific* stressors have consistent negative effects on *domain-specific* self-esteem (e.g., Harter, 1986; Rosenberg et al., 1995). Academic failure negatively impacts a person's sense of academic self-worth or competence, interpersonal problems negatively affect a person's rating of acceptance by other people, athletic prowess increases sports-related self-esteem, and so on. Domain-specific self-esteem appears to be related to overall self-esteem only when the person perceives the sphere in which he/she has been having troubles (or successes) as important or valuable (Harter, 1987; Major & O'Brien, 2005; Rosenberg et al., 1995). For example, one can do badly (or well) at sports and be relatively unaffected psychologically if one does not view sports as important. Note that these findings are consistent with the identity-relevant stress hypothesis: Failures or poor performances have effects on global self-esteem only when they occur in a personally salient domain.

In short, the relationship between stressors and self-worth can be more complicated than many sociological stress researchers have assumed, and thus, stressors' effects on mental health *through* self-esteem may seem weak or counterintuitive if these complexities are not taken into account. Despite such complexities, however, research generally suggests that changes in self-esteem help to explain how stressful experiences produce negative mental health consequences.

Stress Moderation

As mentioned earlier, decades of research have made it clear that even traumatic or cumulative stress experiences do not necessarily result in psychological distress or disorder. This result is in part because individuals possess "coping resources" with which to handle stressors. Coping resources are social and personal characteristics that enable effective and appropriate action in the face of adversity (Pearlin & Schooler, 1978). Social support is one such major resource (see Chap. 17). Personality resources that have been extensively studied include personal control or mastery (see Chap. 19) and self-esteem.[8] Again, I focus on self-esteem here. Because self-esteem refers to viewing oneself positively and people's positive self-views remain fairly stable over time, in the stress and coping literature self-esteem is often conceptualized as a personality characteristic—that is, an attribute of the individual that is carried into a wide range of situations appears to have an inner locus of causation and aids in the prediction of the person's behavior (Levy, 1970).

Not surprisingly, because self-esteem and perceived control over one's life are strongly correlated (Pearlin et al., 1981; Turner & Roszell, 1994), these two resources behave very similarly as stress-moderators. Like personal control, self-esteem buffers or significantly reduces the harmful effects of stressors on people's psyches. In other words, individuals who have numerous stressors *and* high self-esteem exhibit fewer symptoms of psychological distress and are less likely to develop a mental disorder than people with similar stress exposure but low self-esteem (Brown, Craig, & Harris, 1985; Brown & Harris, 1978; Cohen & Edwards, 1989; Kaplan et al., 1983a; Kessler & Essex, 1982; Kessler, Turner, & House, 1988; Pearlin et al., 1981; Shamir, 1986; Taylor & Aspinwall, 1996; Taylor & Stanton, 2007). Although this stress-moderating effect is fairly well-established in the literature, some studies report that self-esteem does *not* buffer the mental health consequences of stressors (Orth et al., 2009; Turner & Lloyd, 1999). The counterintuitive consequences of low self-esteem, described by self-verification theory, may help to explain these exceptions.

Self-verification theory (Swann, 1997) posits that people want to maintain *consistent* conceptions of themselves rather than *positive* self-conceptions; they attempt to verify their existing self-images in interactions with other people and in real-world events.[9] According to the theory, having a consistent

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[8] Other coping resources include hardiness, a sense of coherence, Type A characteristics such as impatience and hostility, and optimism (for reviews, see Carver, Scheier, Miller, & Fulford, 2009; Cohen & Edwards, 1989; Rodin & Salovey, 1989; Scheier & Carver, 1992).

[9] In contrast, symbolic interactionist theorists almost always presume the dominance of self-enhancement motives (i.e., they presume that individuals prefer positive feedback about themselves over feedback that is consistent with their existing self-images).

self-image makes the social environment seem predictable and safe, so individuals are strongly motivated to hold onto their self-views, even if those self-views are negative. For most people, the self-verification motive and the self-enhancement motive are difficult to disentangle because they go hand in hand: Individuals' thoughts and behaviors indicate that they want to sustain a consistent view of themselves *and* they actively pursue information that they are good, worthy, competent persons, in keeping with their high self-esteem. When the thoughts and actions of individuals with low self-esteem are examined, however, it becomes clear that the desire for a consistent self-image takes precedence over obtaining positive feedback (North & Swann, 2009; Swann, Wenzlaff, Krull, & Pelham, 1992; Swann, Wenzlaff, & Tafarodi, 1992).

It follows from self-verification theory that negative events (especially failures) will be upsetting to people with high self-regard but not so for people with low self-regard. Conversely, positive events (especially successes) will be upsetting to persons with low self-esteem but should sustain or enhance the well-being of individuals possessing high self-esteem. Because positive events threaten the stability of individuals' negative self-concepts, they in effect become stressors, while undesirable events are more expectable and thus less distressing. Confirming these expectations, studies repeatedly find that persons with low self-esteem become more anxious and even develop physical health problems after they have experienced positive events (Brown & McGill, 1989; Cohen & Hoberman, 1983; North & Swann, 2009; Shimizu & Pelham, 2004; Swann & Brown, 1990; Wood, Heimpel, Newby-Clark, & Ross, 2005; although see Kaniasty & Norris, 1993). In short, when high self-esteem fails to buffer the damaging effects of stressors in some studies, it may be because those study samples contain higher percentages of individuals with low self-esteem who barely react to negative events but are disturbed by experiencing positive ones, counterbalancing the upset of high self-esteem persons in the sample who are confronted with major stressors.

Despite these interesting exceptions in the literature, the stress-moderating effect of self-esteem is reported more often than not. But investigators have not yet determined how or why high self-esteem helps to reduce the harmful impacts of stress exposure on well-being. Most researchers assume that self-esteem influences the effectiveness of the coping strategies that people choose in response to stressors (e.g., Folkman, 1984; Taylor & Stanton, 2007). Presumably, individuals with high self-regard have greater confidence or motivation to initiate active problem-solving efforts. Alternatively, they may be more likely than others to appraise a demanding situation as controllable and challenging and therefore to choose problem-focused coping strategies. Those with low self-esteem may more commonly perceive demands as uncontrollable and threatening and therefore resort to less effective emotion-focused coping strategies (Folkman, 1984). Several studies indeed show that individuals high in self-esteem are more likely to use problem-focused coping techniques or to have an active coping style (Aspinwall & Taylor, 1992; Menaghan, 1982, 1983; Menaghan & Merves, 1984; Pearlin & Schooler, 1978; Pearlin et al., 1981; Ross & Mirowsky, 1989; Taylor & Stanton, 2007). But some investigations also indicate that problem-focused efforts can have minimal effects on or sometimes exacerbate people's psychological symptoms (Menaghan, 1983). This may be because people attempt to problem-solve when the stressful situation is in fact uncontrollable or irresolvable (Park, Folkman, & Bostrom, 2001; Taylor & Stanton, 2007)—a counterproductive strategy. Thus, the stress-buffering influences of self-esteem, through promoting problem-focused coping, may be limited to situations that can actually be changed. More theoretical and empirical work will be necessary to clarify the relationships among self-esteem, perceptions of stressors, choice of coping strategies, and mental health outcomes.

Also unaddressed in the literature is the reverse question: What are the consequences of people's coping efforts for their subsequent levels of self-esteem (Cohen & Edwards, 1989; Thoits, 1995; Turner & Roszell, 1994)? Social psychologists typically assume that personality characteristics are both learned from and later modified by life experiences. Self-esteem might not only influence one's stress appraisals and choice of coping methods, but the success or failure of one's coping efforts in turn might enhance or undermine one's self-esteem, respectively. Personality characteristics such as self-regard have rarely been treated as *dependent* variables in the stress and coping process. Doing so might help further illuminate the dynamic relationships among self-esteem, coping-strategy choice, and psychological outcomes.

Social Support and Coping Processes

As mentioned earlier, stress experiences do not necessarily produce psychological disturbance, in part because individuals possess personality resources such as self-esteem and personal control that act as stress-buffers. Stressors' effects are also moderated by access to social support and by flexible or effective use of coping strategies. Although self and identity influences in social support and coping processes have less often been discussed in the stress literature, they may be extremely important to elaborate and test. This is because mental health interventions frequently are aimed at people's social support networks or their coping techniques, and to be effective, interventions must target those aspects of supporting and/or coping that are largely responsible for preventing psychological harm. Changes in self/identity factors may be key.

A number of theorists have offered hypotheses about how social support works to reduce psychological disturbance in the face of stress (Thoits, 2011a). One of the most common assertions is that supporters provide reassurance to the individual that he/she is esteemed and valued; this boost to self-esteem is believed to help the individual cope with or adjust to life's exigencies (Berkman, Glass, Brissette, & Seeman, 2000; Cohen, 2004; Uchino, 2004). Although some research shows that a sense of "mattering" to other people does reduce psychological symptoms (Rosenberg & McCullough, 1981), only a few studies actually test the hypothesis that changes in self-esteem are responsible for the stress-buffering influences of social support. Those studies indeed suggest that supportive relationships reduce the effects of stressors on well-being primarily through bolstering the person's self-esteem (Cohen & Hoberman, 1983; Krause, 1987; Krause & Borawski-Clark, 1994; Symister & Friend, 2003). Although these findings are encouraging, further tests are crucial if we wish to understand and put to practical use our knowledge of how social support works.

Turning to coping processes, we have already considered the positive relationship between high self-esteem and the use of problem-focused coping strategies. There are other, more complex ways in which the self may be involved in coping. Often overlooked by stress researchers is the distinct possibility that people change their views of themselves as a way to cope with difficult life circumstances (Breakwell, 1986). For example, to reduce the perceived threat of chronic work strains or repeated failures on the job, individuals may self-protectively de-emphasize the importance of work as an identity or as a source of self-evaluation. If an identity is successfully made less central to the self, ongoing problems in the identity domain or even the loss of the identity should have less psychological impact, as some studies show (e.g., Bielby & Bielby, 1989; Pearlin & Schooler, 1978; Thoits, 1995, 2010; Wheaton, 1990a).

On the other hand, experimental research finds that people sometimes respond to adversity in a role-identity domain with increased, rather than decreased, commitment to that domain (Lydon & Zanna, 1990). The more individuals see an activity domain as relevant to their personal values prior to the onset of problems, the greater their commitment to that domain after encountering difficulties.[10] In short, people may cope with negative experiences in an important or valued realm of experience by becoming reactively less *or* reactively more invested in that identity, as seen, for example, in the

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[10] Although increased commitment may enable individuals to persist in the face of adversity, investigators have not yet assessed the psychological consequences of greater commitment combined with thwarted efforts to overcome problems.

literature on racial identity: the centrality of the identity can buffer *or* exacerbate the distressing consequences of discriminatory experiences.

These competing observations raise questions about the utility of people's self-reports of identity commitment or identity salience. We may need ways to detect temporary distortions in self-reports caused by efforts to cope with threatening events. They also imply that it will be difficult to demonstrate that stressors' psychological impacts depend on their meaning for the self, because the meaning of stressors may be constantly changing as individuals attempt to cope (Lazarus & Folkman, 1984; Park & Folkman, 1997). Appreciation of these dynamics impels the use of research strategies suited to the study of processes that unfold over time (e.g., daily diaries, participant observation, in-depth interviewing, narrative analysis, etc.). Further, it becomes crucially important to specify the conditions under which people are likely to withdraw their allegiance from a stressful domain of experience or invest further in it. Only with some grasp of these conditions might we improve our understanding of stressors' psychological impacts. And only with some understanding of when and why individuals become more committed to an identity when under stress might we begin to develop interventions to encourage persistent coping efforts in the face of challenge or hardship.

Areas for Future Research on Selves/Identities and Stress

Up to this point, we have examined the roles of self-conceptions and/or self-evaluations in stress appraisal, stress mediation, stress moderation, and explicating how social support and coping responses reduce psychological disturbance through their effects on the self. I have noted along the way inconsistent findings and unanswered questions that will need attention in future work. There are still other ways in which self and identity factors may enter the stress process. These avenues have less commonly been explored in the literature. The following commentary simply notes their appropriateness for inclusion in our future research agenda.

First, we have considered threats to or losses of salient identities as highly meaningful stressors that should have major impacts on people's psyches. Note that these stressors typically involve threats to or losses of socially valued identities. But there are other types of identity that are generally considered to be stressful in themselves, in particular, devalued and/or stigmatized identities that are imposed on the individual by other people, including identities based on gender, age, race, ethnicity, and religion as well as stigmatized sexual orientations, physical disabilities, chronic illnesses, and the like. The literature is clear that possessing a devalued identity leads to frequent experiences of rejection, discrimination, and other insults to the self (Brown et al., 2000; Carr & Friedman, 2005; Gee, Spencer, Chen, Yip, & Takeuchi, 2007; Kessler, Mickelson, & Williams, 1999; Meyer, 1995; Link, 1987; Link et al., 1989; Thompson, 1996; Turner & Avison, 2003; Williams, Neighbors, & Jackson, 2003), all of which are stressors. Researchers have generally assumed that such identity impositions always generate harm to self-esteem and to mental health, often without empirical verification. As we have seen earlier with respect to the experiences of people with visible stigmas, when self-esteem outcomes are examined directly, results have proved more complex and context-dependent than anticipated (e.g., Crocker & Major, 1989; Major & O'Brien, 2005; Rosenberg, 1981; Thompson, 1996). An important next step is investigating and completing the links from devalued social identities, to negative experiences predicated upon those identities, to conditions specifying when those negative experiences will and will not result in damage to self-esteem and psychological well-being.

A second unexplored avenue concerns stress avoidance. Although personality resources such as high self-esteem and perceived control over life are most often treated as stress-mediators and as stress-buffers, these resources likely enable people to prevent or avoid stressful situations before they occur. Assuming that people with high self-regard and a sense of control over life are more competent at social, intellectual, and/or physical task demands (an assumption deserving further empirical examination), these personality characteristics should help individuals to anticipate and select themselves into positive, desirable situations and to foresee and forestall negative, undesirable ones from happening (Aspinwall & Taylor, 1997; Cohen & Edwards, 1989; Thoits, 2006; Turner & Roszell, 1994). Some evidence of such selection effects exists (Thoits, 1994). But stress researchers have been focused almost exclusively on the stress-buffering effects of self-esteem and self-efficacy and have ignored the potential stress-avoidant influences of these characteristics as important in their own right. These processes deserve further documentation and consideration, particularly because they may have implications for designing preventive interventions.

A third generally unexplored question concerns whether stressors can lead to identity change. A number of theorists have suggested that stress experiences not only prompt individuals to reevaluate the importance of certain of their self-conceptions but might precipitate actual identity change (Charmaz, 1995; Ebaugh, 1988; Kiecolt, 1994; Thoits, 1994). According to symbolic interactionist theory, individuals may discard an identity if they repeatedly experience events that disconfirm a valued identity or block its validation (e.g., Burke, 1996; McCall & Simmons, 1978). Kiecolt has argued that stressors will lead to identity change only when one or more additional conditions are met: one views the stressful situation as identity-relevant, one accepts self-blame for the stressor, one has access to structural and personal supports for self-change, one believes that self-change is possible, and one perceives that the benefits of self-change will outweigh the costs. Kiecolt implicitly underscores the obstacles that often make extrication from an identity difficult and thus relatively rare (see also Ebaugh, 1988). Perhaps because it is rare, stress researchers generally have overlooked the possibility that stress experiences may cause individuals to drop an identity deliberately, as a coping response. Some "negative" life events or identity losses (e.g., marital separation, quitting a job) may actually be ways of *coping* with stress rather than stressors in themselves (Thoits, 1994).

Finally, and related to this last point, stress experiences might also lead to identity acquisition or identity reinvestment. Individuals can compensate for unsolved problems in one domain by deliberately increasing their involvement in other domains or by acquiring additional role-identities (Gecas & Seff, 1990; Sieber, 1974; Thoits, 2006, 2010). If a person remains in a difficult job situation, for example, he/she may devote more time and energy to family, church, or athletic activities, begin volunteering, or return to school part-time. Purposefully engaging in rewarding activities in other role domains should help counterbalance the distressing impacts of unresolved situations. Future research might examine such compensatory coping strategies as an additional way in which individuals act to alleviate psychological distress due to unsolved problems in their lives.

Conclusions

By this point, the reader may be wondering where stressors leave off and coping responses begin, where self-esteem is or should be located in the stress process, and at what points self and identity concepts are identical to or distinguishable from stress experiences. I have suggested that some stressors are direct threats to an identity, some are threats only if an identity is salient, and some changes in identity salience may be coping strategies. Identity losses may be stressors in themselves, may be caused by cumulative stress exposure, or may be ways of coping with unrelenting stress. Self-esteem may enable the avoidance of stress, may mediate stress effects, may modify the impacts of stress, or may itself be influenced negatively by stress experiences. Minimally, it should be clear that one is at risk of confounding one concept with another if one does not take great care in defining terms and specifying the particular links in the stress process being examined. Maximally, the degree to which self and identity factors pervade the stress process should be apparent, increasing appreciation of just how complex stress and coping dynamics really are and how important it can be to draw from theories of the self to explore and explain these dynamics. I believe incorporating self and identity mechanisms into stress theory is crucial for developing it further, given the virtual impossibility of talking about stress, coping, and social support processes without some reference to these constructs. Their roles in the stress process have received less empirical attention than they deserve. The next generation of stress studies may begin to elaborate and test a number of theoretical mechanisms described here. As we further understand how and when stress experiences result in psychological problems, we will discover points in the unfolding stress process at which specific, deliberate, and potent mental health interventions can be aimed.

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Chapter 19
The Sense of Personal Control: Social Structural Causes and Emotional Consequences

Catherine E. Ross and John Mirowsky

Some people attribute the events and conditions of their lives to their own actions while others believe their lives are shaped by forces external to themselves like luck, chance, fate, or powerful others. The sense of personal control is the belief that you can and do—master, control, and shape your own life. Its opposite is the sense of personal powerlessness. In other words, perceived control and powerlessness represent two ends of a continuum, with the belief that one can effectively alter the environment at one end of the continuum, and the belief that one's actions cannot influence events and circumstances at the other.

The sense of personal control has social causes and emotional consequences (Mirowsky & Ross, 1989). Powerlessness, as a social-psychological variable, is distinct from the objective conditions that may produce it and the distress an individual may feel as a consequence of it. As noted by Seeman (1959) and elaborated by Mirowsky and Ross (1989, 2003), perceived control occupies the central position in a three-part model in which social conditions shape perceptions of control, which, in turn, affect emotional well-being.

Compared to the belief that outcomes are determined by forces external to oneself, belief in personal control is associated with low levels of psychological distress (Benassi, Sweeney, & Dufour, 1988; Kohn & Schooler, 1982; Mirowsky & Ross, 1983, 1984, 2003; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Wheaton, 1980, 1983). In fact, of all the beliefs about self and society that might affect distress, belief in control over one's own life may be the most important (Mirowsky & Ross, 1986, 1989, 2003).

This chapter is organized according to three main issues relating to the sense of personal control: (1) concept and measurement, (2) social structural causes, and (3) emotional consequences. In the first section, we discuss concepts and measures related to personal control, including locus of control, self-efficacy, helplessness, and subjective alienation; we examine heuristics in psychology and sociology; and we end with a discussion of defense and acquiescence in measures of perceived control. In the second section, we develop a theory of objective power and perceived control, and we examine several social structural correlates of perceived control—socioeconomic status; gender, work, and family; age; neighborhoods, and race, culture, and ethnicity. In the third section, we describe the basic association between perceived control and psychological distress and modifications of the basic pattern.

C.E. Ross (✉) • J. Mirowsky
Department of Sociology, Population Research Center, The University of Texas at Austin,
University Station A1700, Austin, TX 78712, USA
e-mail: Cross@prc.utexas.edu

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The Concept and Measurement of Personal Control

Personal Control and Related Concepts

The importance of perceived control is recognized in a number of social and behavioral sciences, where it appears in several forms with various names. Seeman placed the sense of powerlessness and perceived lack of control at the top of his list of types of subjective alienation, defining it as, "the expectancy or probability, held by the individual, that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks" (Seeman, 1959, p. 784). Perceived control is closely related to concepts of internal locus of control, self-efficacy, mastery, instrumentalism, self-directedness, and personal autonomy on one end of the continuum, and helplessness and fatalism on the other.

In cognitive psychology, perceived control appears as locus of control (Rotter, 1966). Belief in an external locus of control is a *learned*, generalized expectation that outcomes of situations are determined by forces external to one's self such as powerful others, luck, fate, or chance. The individual believes that he or she is powerless and at the mercy of the environment. Belief in an internal locus of control (the opposite) is a learned, generalized expectation that outcomes are contingent on one's own choices and actions. Compared to persons with an external locus of control, those with an internal locus of control attribute outcomes to themselves rather than to forces outside of themselves.

The sense of personal control corresponds to the personal control component of Rotter's locus of control scale, which includes questions like "when I make plans I can make them work" or "I have little influence over the things that happen to me." The concept of personal control refers to *oneself*, not others, and it is *general*, not realm-specific (Mirowsky & Ross, 1989). Thus, unlike Rotter's locus of control scale, it excludes beliefs about the control others have over their lives and realm-specific control, like political control, from the concept. For instance, we do not consider questions from the Rotter scale like "the average citizen can have an influence in government decisions" or "there will always be wars" to be measures of the sense of personal control since they do not refer to oneself, and they are realm-specific. Although political control may have implications for outcomes such as voter behavior (or academic control for scholastic performance), they are less directly related to mental health.

Perceptions about the amount of control *others* have over their lives might be related to mental health, but these beliefs are conceptually distinct from personal control. Belief about the amount of control that other people have—called ideological control (Gurin, Gurin, & Morrison, 1978), universal control, or American instrumentalism (Mirowsky, Ross, & Van Willigen, 1996)—should be distinguished from personal control or individual instrumentalism. Ideological, or universal, control refers to the degree one feels that others' successes or failures are their own doing; personal control refers to one's own life outcomes.

The sense of personal control overlaps to a large extent with self-efficacy despite Bandura's (1986) claim that sense of control and self-efficacy are distinct (although related) concepts. Bandura collectively refers to concepts of locus of control, or sense of control, as outcome-expectancy theories. Self-efficacy, according to Bandura, focuses upon the individual's belief that he or she can (or cannot) effectively perform a specific action, whereas control focuses on the belief that certain actions will achieve ultimately desired goals. According to Bandura, self-efficacy is specific to particular contexts. The sense of control is a more parsimonious concept than self-efficacy, with more universal application. The degree to which people think they can or cannot achieve their goals, despite the specific nature of the actions required, has applicability to almost all circumstances. Hence, control is a more attractive measurable concept for most mental health research. More importantly, the sense of personal control may be the root of self-efficacy. A person with a high sense of personal control will likely try other actions if their current repertoire of behaviors is not working. New behaviors may successfully obtain desired goals, which may in turn increase the perceived ability to shape other events and circumstances in life.

Another related concept appears in behavioral psychology as learned helplessness. The behavior of learned helplessness results from exposure to inescapable, uncontrollable negative stimuli and is characterized by a low rate of voluntary response and low ability to learn successful behaviors (Seligman, 1975). Although intended as an analog of human depression, it is important to remember that learned helplessness refers to the behavior, not to any cognitive attribution that reinforcements are outside one's control, and not to the imputed emotion of depression. In humans, however, there is a link between an external locus of control (a cognitive orientation) and learned helplessness (a conditioned response): the perception that reinforcement is not contingent on action. Hiroto (1974) found that, compared to subjects with an internal locus of control, those with an external locus of control were less likely to see a connection between behavior and reinforcement, and as a result, learned more slowly.

In sociology, the concept of perceived powerlessness versus control can be traced to subjective alienation. Seeman (1959) defined alienation as any form of detachment or separation from oneself or from others. He further elaborated specific forms of alienation, defining powerlessness as the primary type of alienation (the others are self-estrangement, isolation, meaninglessness, and normlessness). Powerlessness is the separation from important outcomes in one's own life; or an inability to achieve desired ends. Perceived powerlessness is the cognitive awareness of this reality. Both Rotter (1966) and Seeman (1959) recognized that perceived powerlessness—the major form of subjective alienation—and external locus of control were related concepts. In fact, Rotter derived the concept of locus of control from the sociological concept of alienation, stating "the alienated individual feels unable to control his own destiny" (1966, p. 263).

Other sociological concepts build on themes of perceived powerlessness versus control, and, unlike some psychologists who focus on differences among related concepts, sociologists appear more likely to look for these common themes. As a result, many of the constructs used by sociologists overlap and often are conceptually indistinct. In sociology, concepts related to personal control appear under a number of different names in addition to powerlessness, notably mastery (Pearlin et al., 1981), personal autonomy (Seeman, 1983), the sense of personal efficacy (Downey & Moen, 1987; Gecas, 1989), self-directedness (Kohn & Schooler, 1982), instrumentalism (versus fatalism) (Wheaton, 1980), and agency (Thoits, 2006).

Heuristics in Psychology and Sociology

Ideally, social psychologists who study the links between social structural conditions, perceptions of control, and emotional outcomes will synthesize the strengths of psychology and sociology—as did Rotter and Seeman—while avoiding the pitfalls. Each discipline has a heuristic, or working assumption, which greatly simplifies reality to provide a base from which to proceed with research. In the extreme, psychology assumes that beliefs come out of people's heads without reference to social conditions, whereas sociology assumes that there is nothing *but* social structure. Sociologists too often discount the ways in which perceptions mediate the effects of social position on well-being; psychologists too often discount the influence of social structure on perceptions. Both links are crucial to understanding the processes by which social position affects psychological well-being.

Sociologists sometimes imply that social structure has consequences for individual behavior or well-being without reference to individual beliefs or perceptions (Braverman, 1974). Erikson (1986) critiques sociologists who think that bringing in social psychological mediating variables somehow makes theory less structural. "There are those," says Erikson, "who argue that one ought to be able to determine when a person is alienated by taking a look at the objective conditions in which she works. The worker exposed to estranging conditions is alienated almost by definition, no matter what she says she thinks or even what she thinks she thinks. That view … has the effect of closing off sociological investigation rather than the effect of inviting it. Alienation, in order to make empirical sense, has to reside somewhere in or around the persons who are said to experience it." (1986, p. 6). The association between the objective condition and the subjective perception is an important empirical question; one that must be investigated, not assumed (Ross & Mirowsky, 1992; Seeman, 1983).

Some psychologists, on the other hand, discount the effects of social position, instead claiming that perceptions of control are as likely to be illusory as to be based on reality. Levenson says that a belief that one controls important outcomes in one's life is *unrelated* to the belief that others, chance, fate, or luck control the outcomes (Levenson, 1973; see Lachman, 1986 for a review). Brewin and Shapiro (1984) contend that a perceived ability to achieve desirable outcomes is unrelated to a perceived ability to avoid undesirable ones. In both cases, people supposedly fail to see a connection, and the realities of life do not suggest one. Implicitly, these views deny the effects of social status on the sense of control. Levenson's view suggests that education, prestige, wealth, and power do not shift the locus of real control from others and chance to oneself. Brewin and Shapiro's view suggests that the real resources available for achieving success are useless for avoiding failure. The empirical basis for these claims is small and often insignificant correlations between internal and external control and control over good and bad outcomes. Next we discuss the biases in their scales created by agreement tendencies and defensiveness that produce these results.

Measurement of Personal Control

Responses to questions about personal control capture the concept of interest, and two other crosscutting concepts—the tendency to agree and self-defense. Some people tend to agree with statements irrespective of content. Agreement tendency can make it appear as if internal and external control are uncorrelated (as in Levenson, above). Some people are more likely to believe that they control the good outcomes in their lives than that they control the bad ones (self-defense); others take more responsibility for their failures than for their successes (self-blame) (as in Brewin and Shapiro above). Agreement tendencies and the tendency toward self-defense or self-blame crosscut the concept of interest and bias measures unless they balance agreement and defense. Thus, measures of personal control ideally should balance defensiveness and agreement tendencies to achieve unbiased measures. The Mirowsky-Ross measure of the sense of control (1991) is a two-by-two index that balances statements about control with those about lack of control, and statements about success (good outcomes) with those about failure (bad outcomes). It is illustrated in Fig. 19.1. Interestingly, Rotter's locus of control scale used a forced-choice format to solve the problem of acquiescence, but his logic apparently was lost when researchers switched to Likert scales. Likert scales are much more efficient in surveys, and are more acceptable to respondents who dislike being forced to choose one of two extremes. Likert scales allow degrees of agreement with each statement, and the Mirowsky-Ross scale asks people whether they strongly agree, agree, disagree, or strongly disagree with each statement (1991). However, Likert scales should balance control and lack of control over good and bad outcomes to ensure validity.

Social Structural Causes of Personal Control

In the USA, average levels of perceived control are high, and they vary systematically with positions of objective power. The large majority of Americans report that they control their own lives. Mirowsky et al. (1996) find that more than 90% of a representative national sample agree with the statements "I am responsible for my own successes" and "I can do just about anything I really set my mind to."

Fig. 19.1 Indicators of personal control (Mirowsky & Ross, 1991)

Personal Control

	Successes	Failures
Control	1) I can do anything I set my mind to. 2) I am responsible for my own successes.	1) My misfortunes are the result of mistakes I have made. 2) I am responsible for my failures.
Lack of Control	1) The really good things that happen to me are due to luck 2) If something good is going to happen to me, it will.	1) Most of my problems are due to bad breaks. 2) I have little control over bad things that happen to me.

A smaller percentage, but still more than two-thirds of the sample, agrees with statements claiming responsibility for personal misfortunes and failures. These levels of agreement are impressive, but they are inflated by the tendency of some respondents to agree with statements regardless of what it expresses (Mirowsky & Ross, 1991). That same tendency deflates the level of disagreement with fatalistic statements. Even so, disagreement with the fatalistic statements ranges from 54% to 79%. Averaging the percentage of instrumental responses across the eight personal control items shown in Fig. 19.1 yields a mean of 77%. As a generalization, about three-fourths of Americans apparently feel that they are in control of their own lives and responsible for their own outcomes. In a cross-national comparison using the World Values Survey, Americans ranked second in perceptions of control—after Finland—in response to the statement "Some people feel that they have completely free choice and control over their lives, and other people feel that what they do has no real effect on what happens to them. How much freedom of choice and control do you feel you have over the way life turns out?" (Canada was third, followed by Sweden, Norway, and Denmark) (Sastry & Ross, 1998). Despite high mean levels of personal control in the USA, considerable variation exists, too.

Objective Power and Perceived Control

Belief in external control is the learned and generalized expectation that one has little control over meaningful events and circumstances in one's life. As such, it is the cognitive awareness of a discrepancy between one's goals and the means to achieve them. Theoretically, social structural positions indicative of objective powerlessness, including dependency, disorder, structural inconsistency, role stress, and alienated labor, increase the probability of this discrepancy and thus increase perceived powerlessness (Avison & Cairney, 2003; Mirowsky & Ross, 2003; Pearlin, Nguyen, Schieman, & Milkie, 2007; Rosenfield, 1989).

Beliefs about personal control are often realistic perceptions of objective conditions. An individual learns through social interaction and personal experience that his or her choices and efforts are usually likely or unlikely to affect the outcome of a situation (Rotter, 1966; Seeman, 1983; Wheaton, 1980). Failure in the face of effort leads to a sense of powerlessness, fatalism, or belief in external control, beliefs that can increase passivity and result in giving up. Through continued experience with objective conditions of powerlessness and lack of control, individuals come to learn that their own actions cannot produce desired outcomes. In contrast, success leads to a sense of mastery, efficacy or belief in internal control, characterized by an active, problem-solving approach to life (Mirowsky & Ross, 1983, 1984; Wheaton, 1980, 1983).

Sociological theory points to several conditions likely to produce a belief in external control. First and foremost is powerlessness. Defined as an objective condition rather than a belief, it is the inability to achieve one's ends or, alternatively, the inability to achieve one's ends when in opposition to others. The second is structural inconsistency, which is a situation in which society defines certain goals, purposes, and interests as legitimate and desirable and also defines the proper procedures for moving toward the objectives but does not provide adequate resources and opportunities for achieving the objectives through legitimate means. The third is alienated labor, a condition under which the worker does not decide what to produce, does not design and schedule the production process, and does not own the product. The fourth is dependency, a situation in which one partner in an exchange has fewer alternative sources of sustenance and gratification than the other. The fifth is role overload, a situation in which expectations of others imply demands that overwhelm the resources and capabilities of the individual. The sixth is threat—the potential for danger and harm in one's environment. Although these conditions are not exhaustive, they all point to the generative force of various forms of social power. In looking for the sources of perceived powerlessness, researchers look for variables associated with conditions of powerlessness, structural inconsistency, alienated labor, dependency, role overload, and a threatening environment.

Among the major sociodemographic correlates of the sense of personal control are: (1) socioeconomic status, including education, income, work, and unemployment; (2) gender and gendered statuses in paid and unpaid work and in the family; (3) age; (4) neighborhood context; and (5) race/ethnicity.

Socioeconomic Status

Most research on the social structural correlates of perceived control looks at socioeconomic status (SES)—education, income, employment status, work, and occupations. General socioeconomic status (as measured by an index of family income, occupational prestige of the respondent or breadwinner, and interviewer ratings of the social class of the neighborhood, home, and respondent) is negatively related to a sense of powerlessness and, thus, positively related to a sense of mastery and control (Mirowsky & Ross, 1983). Looking at specific components of SES separately, education, family income, personal earnings, economic hardship, job status, and control at work each decrease the sense of powerlessness, adjusting for the other components (Downey & Moen, 1987; Mirowsky & Ross, 1983, 2003, 2007; Pearlin et al., 2007; Pudrovska, Schieman, Pearlin, & Nguyen, 2005; Ross & Mirowsky, 1989, 1992; Ross, Mirowsky, & Cockerham, 1983; Ross & Van Willigen, 1997; Schieman, 2001; Wheaton, 1980).

Education develops effective capacities on many levels. First, in formal education one encounters and solves problems that are progressively more difficult, complex, and subtle. The process of learning builds confidence and self-assurance, even if the things learned have no practical value. Those things, however, often do have practical value. Education also instills the habit of meeting problems with attention, thought, action, and persistence. It develops the general habits and skills of communication and analysis, plus those which are tailored to an occupation. Education develops the ability to solve problems on all these levels, and the ability to solve problems increases control over events and outcomes in life. Finally, education serves as an avenue to good jobs and high incomes. Education increases perceived control in part by way of high status jobs that provide control over work and scheduling, that are challenging and interesting, and provide economic rewards and security (Schieman & Plickert, 2008). Thus, education marks the social power that helps provide control over circumstances of life (Mirowsky, 1995; Mirowsky & Ross, 1998, 2007; Ross & Wu, 1995; Schieman & Plickert, 2008).

In school, academic achievement as measured by grades and test scores increases the sense of control between 8th and 12th grades, and the sense of control in turn boosts academic achievement (Ross & Broh, 2000). In contrast, although success in school also increases self-esteem, self-esteem, in turn, has no significant impact on academic achievement. Young adults who stay in school see an increase in the sense of personal control between the ages of 14 and 22 that persists at least up to age 35, whereas those who drop out of high school do not (Lewis, Ross, & Mirowsky, 1999). Finally, young adults whose parents are well-educated have higher levels of personal control and mastery than the children of poorly educated parents (Conger, Williams, Little, Masyn, & Shebloski, 2009; Lewis et al., 1999).

Education acts like a stored resource, enhancing the development of personal control in young adulthood and slowing its erosion in old age (Mirowsky & Ross, 2007). Compared with the college educated, persons with a high school degree have a lower sense of control, which peaks at a lower level and at a younger age, and then declines rapidly in older age. Among those with a college degree, the sense of control starts high, rises in young adulthood, stays high in middle age, and declines less in old age. The most disadvantaged life course trajectory of control is that among persons who have not finished high school. Their sense of control starts low, and never increases in young adulthood. In fact, it begins declining early, stays low, shows a little upturn around retirement (maybe from oppressive jobs), and then declines again to the lowest level of any group (Mirowsky & Ross) (see Fig. 19.2).

Jobs are important for a number of reasons. Low-status jobs produce a sense of powerlessness because the job, and the opportunities and income it provides, are seen as barriers to the achievement of life goals (Wheaton, 1980). Jobs that are substantively complex (especially in work primarily with information and people rather than with things) increase the sense of personal control and psychological self-directedness (Kohn, 1976; Kohn & Schooler, 1982). Jobs that provide autonomy—freedom from close supervision and participation in decision-making—increase the sense of personal control (Bird & Ross, 1993; Kohn & Schooler, 1982; Pearlin et al., 2007; Ross, 2000; Ross & Mirowsky, 1992). Creative, nonroutine work that allows people to solve problems, learn new things, and engage in a variety of tasks also increases the sense of control (Ross). Creative and autonomous work each has independent effects on personal control, and, further, they explain the effect of working with people and data on the sense of control (Ross). Together substantively complex, nonroutine, creative, and autonomous work signals control over one's own work, which Kohn and his colleagues call occupational self-direction. Among the employed, occupational self-direction—rather than ownership of the means of production or control over the labor of others—increases psychological self-direction, which is similar to the sense of personal control. (Kohn, 1976; Kohn, Naoi, Schoenbach, Schooler, & Slomczynski, 1990; Kohn & Schooler, 1982). Job latitude, like occupational self-direction, includes autonomous decision-making and nonroutine work, and it significantly increases perceived control (Seeman, Seeman, & Budros, 1988).

Job disruptions such as being laid off, downgraded, fired, or leaving work because of illness decrease the worker's sense of mastery, partly by lowering income and increasing difficulties in acquiring necessities such as food, clothing, housing, and medical care, or optional but useful items such as furniture, automobiles, and recreation (Pearlin et al., 1981).

In sum, theory strongly predicts a positive relationship between socioeconomic status and the sense of control, and research strongly supports the prediction. Most aspects of SES, including high levels of education, household income, personal earnings, job status, occupational self-direction, work autonomy and creativity, and employment itself are significantly associated with high perceived control. Furthermore, some studies find that adjustment for the sense of control statistically explains the effects of education and household income on distress, meaning that perceived control mediates the effects of SES on distress (Mirowsky & Ross, 2003).

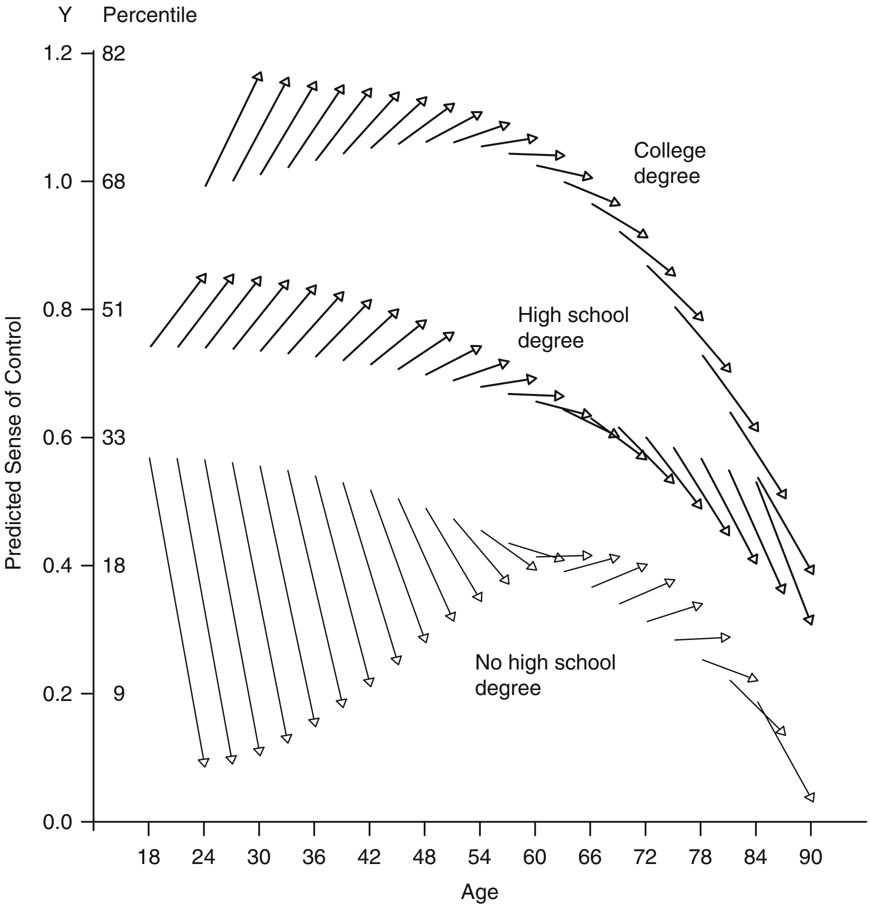

Fig. 19.2 Vectors representing the predicted origin and change in the sense of control over the 6 years from 1995 to 2001 by level of education (for persons not currently in school), adjusting for parental education, based on the models in Table 3 in Mirowsky and Ross (2007). Percentiles are cumulative percentages associated with corresponding Z-scores given the mean (.79) and standard deviation (.44) of the control factor in 1995

Gender, Work, and Family

Theory suggests that women have a lower sense of control over their lives than men as a result of economic dependency, restricted opportunities, role overload, and the routine nature of housework and women's jobs. Past evidence indicates that women have a lower sense of control than men (Mirowsky & Ross, 1983, 1984; Thoits, 1987), but often the difference is insignificant (Ross & Bird, 1994; Ross & Mirowsky, 1989). We examine the empirical evidence for expectations based on theory. Then we return to the original question of whether women have a lower sense of control over their lives than do men, and the circumstances under which they do and do not.

Women's Work, Men's Work

Women are more likely to do unpaid domestic work; men are more likely to work for pay. Compared to not working for pay, employment is associated with status, power, economic independence, and noneconomic rewards, for both men and women (Bird & Ross, 1993; Gove & Tudor, 1973). For women who are exclusively housewives, domestic work is done without economic rewards, without the opportunity for advancement or promotion for work well done, and, because it is often invisible, devalued, and taken for granted, without psychological rewards (Bergmann, 1986; Gove & Tudor, 1973). Theory predicts that people employed for pay have a greater sense of control over their lives than homemakers. Perceived control over one's life is the expectation that one's behavior affects outcomes, and working for pay likely produces a mental connection between efforts and outcomes. In contrast, work done without pay or other rewards produces a sense of disconnection between efforts and outcomes. Effort and skill at housework have few consequences; one does not receive a raise, and one's standard of living is determined by someone else, not by one's abilities at the job. Furthermore, homemakers are economically dependent, which may decrease one's sense of control and increase the perception that powerful others shape one's life. Both economic dependency and the disconnection between work and rewards theoretically decrease perceived control among unpaid domestic workers compared to paid workers. Evidence indicates that employed persons have a higher sense of control than the nonemployed overall (Ross & Mirowsky, 1992) and homemakers specifically (Bird & Ross). Elder and Liker (1982) found that elderly women who had taken jobs 40 years earlier, during the Great Depression, had a higher sense of self-efficacy and lower sense of helplessness than women who remained homemakers.

What explains the association between full-time homemaking and low personal control? Bird and Ross (1993) find that, compared to paid work, homemaking is more routine, provides less intrinsic gratification, fewer extrinsic symbolic rewards concerning the quality and value of the work, and it is unpaid. These differences account for houseworkers' lower sense of control over their lives. However, housework offers one important advantage over the average paid job: higher levels of autonomy. Work autonomy significantly increases the sense of control. Were it not for their autonomy, homemakers would experience an even lower sense of control.

Women's paid work is also more alienating than men's. Ross and Wright (1998) examined gender differences in four dimensions of work alienation—routine, nonautonomous, estranged, and isolated work—and the ways in which work alienation shapes subjective alienation, measured as the sense of powerlessness versus control. Women's work is more objectively alienating than men's, and these work characteristics shape people's sense of personal control. Nonroutine work, including task variety and problem-solving; autonomous work, including decision-making autonomy and freedom from supervision; fulfilling work; and nonisolated work all significantly positively affect the sense of personal control. Women's disproportionate representation in part-time work (in addition to homemaking) helps explain women's low personal control. Compared to full-time employees, part-time workers have a lower sense of control because their work is more routine, less enjoyable and less autonomous. Compared to full-time employees, homemakers have a lower sense of control because their work is more routine, less enjoyable, and more isolated (Ross & Wright).

Work and Family Interactions

Overall, the employed have significantly higher average perceived control than do homemakers. However, critical combinations of low pay, nonautonomous working conditions, and heavy family demands (conditions faced disproportionately by women) may negate the positive influence of employment on control. Ross and Mirowsky (1992) find, first, that the difference in perceived control between employed and nonemployed depends on job conditions, including job autonomy and earnings (job authority, promotion opportunities, and job prestige are not significant). As job autonomy and earnings increase among the employed, their sense of control relative to that of the nonemployed increases. Second, household labor modifies the effect of employment on the sense of control. The higher one's responsibility for household work, the less the association between employment and control (Ross & Mirowsky). Responsibility for household work greatly decreases the sense of control associated with employment. Employed persons with low earnings and autonomy (a standard deviation below average) and major responsibility for household chores (a standard deviation above average) report a lower average sense of control than people who are not employed. At the other extreme, employees with high earnings and autonomy and low responsibility for household chores have much higher perceptions of control than do the nonemployed.

Job autonomy, earnings, responsibility for household work, and other family income combine to make the association between employment and the sense of control greater for married men than for married women. Men have higher autonomy and earnings, less responsibility for household work, and lower amounts of other household income. Because of the differences in these factors, employment increases the expected sense of control most for married males. For married women, the typical combination of low pay, low autonomy, high responsibility for household chores, and high family income other than personal earnings nearly negates the positive association between employment and the sense of control, and marriage itself apparently reduces women's autonomy and control (Ross, 1991; Ross & Mirowsky, 1992). Because marriage increases household income, which is associated with high levels of personal control, marriage represents a trade-off for women. "The economic well-being of married women carries a price, paid in personal control" (Ross, 1991, p. 837).

Gender, Age, and the Sense of Personal Control

Theory predicts that women have a lower sense of control than men, but some research does not find significant differences between men and women in their levels of personal control. Inconsistencies in research results suggest that women's sense of control is lower than men's under some conditions, but not others. Ross and Mirowsky (2002) suggest that the gender gap in perceived control is greater for older persons than for younger. Compared with their male counterparts, older women face more educational, employment, economic, and health disadvantages than do younger women. Older people have lower levels of personal control than do younger (as discussed next), and this may be especially true for women. The gender gap in perceived control is smaller among younger adults (see Fig. 19.3).

Older women may be more disadvantaged than younger because they experienced a lifetime of disadvantages in work and economic conditions that cumulated with age, and because women in older generations had fewer employment and educational opportunities and less equality in unpaid work at home than do younger women. The dynamics of aging, the differences among cohorts, and the link between the two combine to predict more gender equality among young adults than older.

The life course of employment serves as an example because it embodies the traditional sex-typed division of labor. Rates of full-time employment and income are similar for young women and men at the start of adulthood, but middle-aged men and women differ greatly (Mirowsky, 1996; Reskin & Padavic, 1994). Women often stop employment to care for the children and perform domestic work full-time; some are employed periodically over the course of their lives when their family obligations decrease. By middle age, men typically have worked most of their adult lives, but middle-aged women often have stopped working or have worked only intermittently. Men's uninterrupted employment provides job experience that translates into better jobs, which provide higher earnings and more fulfilling work (Budig & England, 2001). By old age, women's employment histories have put them at a higher risk of poverty (McLaughlin & Jensen, 2000).

The increasing divergence between men and women as they age may be greater for earlier cohorts than for more recent cohorts, partly because the life course pattern of employment also differs by generations. The traditional sex-typed division of paid and unpaid work is more common in older generations, where the men are likely to have worked most of their adult lives and the women probably have interrupted or truncated work histories. In younger generations, men's and women's employment

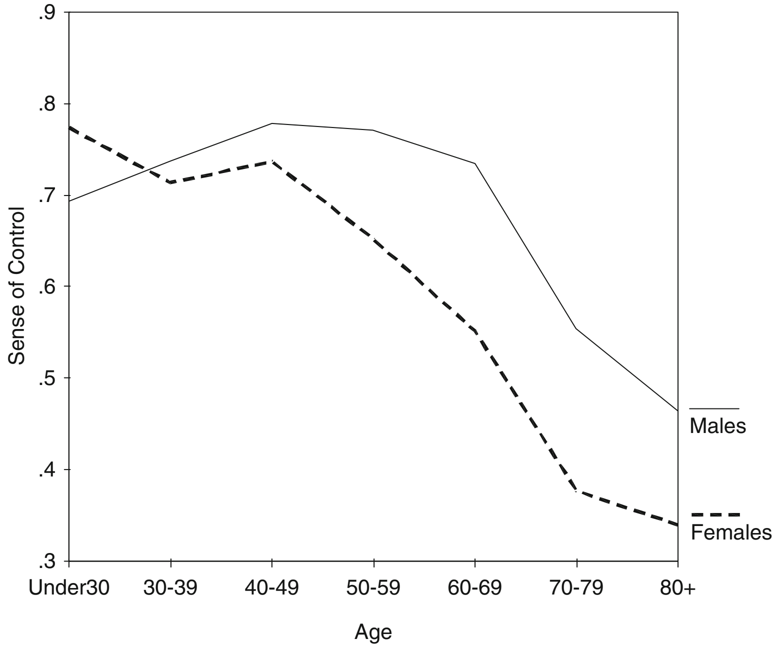

Fig. 19.3 Mean sense of control by sex and age (Ross & Mirowsky, 2002)

patterns are more similar, in part because the education gap has closed. Women now earn the majority of college degrees.

In support of these ideas, Ross and Mirowsky (2002) find that the gender gap in personal control is greater among older persons than younger, and that over time, women's sense of control declines more than men's. Education, personal employment history, household income, and physical functioning account for some of the age-based effect of gender on perceived control. Work fulfillment, fairness of domestic labor, economic hardship, and self-reported health do not, however.

Age

Research examining the full range of adult ages, from 18 to 90, shows that older adults have a lower sense of control than do younger adults (Pearlin et al., 2007), and that perceived control decreases with age at an accelerating rate (Mirowsky, 1995; Ross & Drentea, 1998; Schieman, 2001; Shaw & Krause, 2001). Slight increases in young adulthood seen in cross-sectional studies are actually larger when cohort differences are taken into account: control increases in young adulthood and then declines at an accelerating rate as people age into their 60s, 70s, and 80s (Mirowsky & Ross, 2007). Prior to this work by sociologists, psychology studies had produced contradictory results. In a review, Lachman (1986) concluded that about one-third of studies found low levels of control among the elderly, one-third found high levels, and one-third found no association between age and the sense of control. Rodin (1986) also concluded that there was little evidence that perceived control decreased with age. Inconsistencies in these psychology studies may have resulted from the use of truncated, noncomparable, unrepresentative, and small samples. Many samples contained only elderly, so the comparative data showing higher levels of control among the young and middle-aged was unavailable; and even samples with comparison often used unrepresentative groups of young people (like college students) or elderly (like health plan members). Bias in the measures of perceived control may have also accounted for inconsistencies. Sometimes questions about planning, orderliness, perseverance, self-discipline, achievement, and the like were used to measure perceived control. Although perceived control may be correlated with these things, it is not the same, and many of these things, like planning, orderliness, and so on, increase with age, and confound associations with perceived control. Finally, indices that do not account for agreement tendencies obscure the relationship between age and perceived control because older persons are much more likely to agree to statements regardless of content than are younger persons (Mirowsky, 1995; Mirowsky & Ross, 1996).

More research on representative samples that represent the full age range is needed, but if the accelerating negative association between age and perceived control is replicated, the question is: "What explains the association?" Rodin (1986) suggests three possible explanations for a negative association between age and the sense of control: loss of meaningful relationships, a deterioration of health and physical functioning, and dependency created and enforced through contact with health professionals that prefer compliant patients. Wolinsky and Stump's (1996) test of these aging explanations finds little support. They conclude, as do Mirowsky (1995), Schieman (2001), and Shaw and Krause (2001), that some of the apparent aging effect is really due to education, which is a cohort difference. Earlier cohorts have lower levels of education, which explains much of the association between age and the sense of control. If part of the explanation for the negative association between age and the sense of control is low educational attainment among older persons, we know this is a cohort, not an aging, effect. Age correlates negatively with education. Why? Educational attainment *cannot* decrease as a person ages; so it must be the case that earlier cohorts have lower average levels of education than do more recent cohorts. Thus, if education explains much of the cross-sectional association between age and personal control, we know that part of the explanation must refer to cohort, not aging, differences.

Cohort differences due to education are not the whole story however. Three aspects of aging also appear to explain some of the association: increased physical impairment, retirement, and widowhood. Much of the association between low personal control and older age is also due to aging's effect on physical impairment and poor health (Mirowsky, 1995; Schieman, 2001; Schieman & Turner, 1998; Shaw & Krause, 2001), which supports Rodin's idea. In addition to declines in health and physical functioning, a smaller part of old age's influence on the sense of control could be shaped by the activities of retired persons. Older persons have a lower sense of control that is due in part to retirement (Schieman). In comparison to those of full-time employees, the activities of retirees are more routine, provide less of a chance to learn new things, less positive social interaction with others, and they are especially unlikely to involve problem-solving (Ross & Drentea, 1998). On the other hand, retirees' activities are equally enjoyable and more autonomous than those of full-time workers. Autonomous activities, including decision-making autonomy and freedom from supervision; creative, fulfilling activities that are enjoyable, provide the opportunity to learn new things; and involve a variety of tasks; and nonisolated activity are all positively associated with a sense of personal control. Retirees have a significantly lower sense of personal control than do full-time employees in part because of the some—but not all—of the characteristics of their daily activities reduce personal control (Ross & Drentea). The degree to which this can explain age's effect on personal control was not specifically addressed by Ross and Drentea, and age continues to have a significant negative association with personal control even with adjustment for retirement activities, employment status, physical impairment, and education. Finally, widowhood also explains a small part of the effect (Schieman), which also supports Rodin's idea that loss of meaningful relationships partly explains the lower levels of control among older people.

Much of older persons' current levels of mastery originated earlier in the life course. A history of little control over one's work, perceived discrimination, and economic hardship explain some of the low levels of mastery among the elderly (in addition to low levels of educational attainment) (Pearlin et al., 2007). Education completed early in life puts people on different life course trajectories of personal control, with those of the well-educated starting higher, rising more in young adulthood, staying higher longer, and declining less in old age (Mirowsky & Ross, 2007). Finally, one area for future research concerns the reciprocal effects of physical impairment and the sense of personal control over the life course. Mirowsky and Ross (2003) find feedback loops between impairment and personal control: a sense of control reduces physical impairment, and impairment, in turn, lowers the sense of personal control. It could be that in young and middle life, most of the effect is due to the fact that persons who feel in control of their lives have better physical health (in part due to a healthier lifestyle) (Mirowsky & Ross, 1998), but in later life when impairment and disability are more common, most of the relationship is in the other direction, with impairment reducing perceived control. The hypothesis that age conditions the reciprocal effect between physical impairment and the sense of control remains to be tested.

Race and Ethnicity

Race

Racial discrimination and institutional barriers frustrate African American's aspirations and theoretically lead to a cognitive disconnection between ones efforts and outcomes. Some research finds that Blacks have lower average levels of perceived control than Whites. Explanations for this difference include discrimination encountered by Blacks (a direct effect of race), along with the lower socioeconomic status, especially education and income, held by Black Americans (an indirect effect mediated by education and income) (Hughes & Demo, 1989). Some evidence shows a direct effect of race, even adjusting for education and household income, indicating that Blacks have a lower sense of control over their lives that is not due just to socioeconomic disadvantage (Ross & Mirowsky, 1989; Shaw & Krause, 2001). Shaw and Krause, furthermore, find that the significant Black disadvantage in personal control exists over the whole life course of adults. However, Pearlin et al. (2007) find that when there is a significant negative effect of being Black on mastery, it is completely explained by education. They also find that both work and educational discrimination in the past and in the present shape the sense of mastery. However, discrimination does not explain any race effect, which is already insignificant with adjustment for education.

Another unresolved issue is the apparently contradictory relationship between self-esteem and sense of control among American Blacks. Although research indicates that Blacks have comparatively low levels of control, they have levels of self-esteem on parity with or more positive than Whites (Hughes & Demo, 1989). These findings appear to be inconsistent because self-esteem and sense of control are highly correlated. One interpretation argues that a high level of external control reflects the tendency of Blacks to blame failures on a unfair system that discriminates against Blacks and privileges Whites. By attributing failures to a racist system rather than to themselves, Blacks are able to maintain high levels of personal self-esteem. However, the sense of personal control is a conceptually distinct factor from the degree of system-blame (Mirowsky et al., 1996), and blaming the system does *not* improve self-esteem (Hughes & Demo, 1989; Mirowsky & Ross, 2003). Another interpretation, proposed by Hughes and Demo, is that interpersonal relationships predict self-esteem whereas the sense of control is determined more by socioeconomic success. In their study of African Americans, they find that variables predicting self-esteem are strongly related to the supportive quality of family, peer, and religious attachments. Their results support Rosenberg's (1979) theory that Black self-esteem is related to reflected appraisals of the immediate community, such as teachers, parents, and friends (reflected appraisals of the dominant White culture, on the other hand, which tend to marginalize and devalue Black culture, appear to be largely irrelevant for Black self-esteem). Whereas perceptions of self-worth, or self-esteem, stem from social attachments to close friends and family that reflect positively on a person and provide interpersonal support (Schwalbe & Staples, 1991), perceived competence in the realm of socioeconomic status (educational, occupational, and economic success) may be most important to beliefs about self-efficacy. Indicators of SES, such as education and income, more strongly predict perceived control than do social attachments. This supports the theory of personal control that the experience of successful performance in a variety of tasks shapes a sense of control. (Whether these factors explain race differences in personal control and self-esteem is still unanswered, however, since the study by Hughes and Demo did not include Whites.)

More research is needed to explain the processes by which race shapes the sense of personal control. One possible route suggests hypotheses derived from the theory of personal control. Any condition that severs the link between efforts and outcomes in theory reduces the sense of control. Discrimination is an act in which an individual is treated on the basis of race or another ascribed status (like sex or age), rather than on the basis of their own individual achievements, effort, ability, skills, and other "meritocratic" or "performance-based" criteria. If people are treated on the basis of ascribed characteristics over which they have no control, rather than on the basis of achievements over which they do have control, the link between efforts and outcomes is severed. Whether this treatment is negative or positive does not matter, according to theory. Both negative and positive discrimination produce an uncoupling of what one does and the outcomes of these acts. If a person is hired or promoted on the basis of race, in theory, this will decrease the sense of control. Ironically, correcting past negative discrimination with current positive discrimination, rather than with meritocratic assessments of an individual's own ability to do the job regardless of race, may perpetuate low levels of personal control among African Americans. Only empirical investigation will tell whether this prediction implied by theory is supported.

Ethnicity

Ethnic differences in perceived control may reflect a cultural contrast between a familial and collectivist commitment, on the one hand, and individual self-reliance and autonomy, on the other. Mirowsky and Ross (1984) propose that, compared to Anglos, persons of Mexican ethnic identity in both Mexico and the USA have more of an orientation to family and pseudofamily, whereas Anglos place less emphasis on the mutual obligations of family and friends and more on the individual's personal responsibility for his or her own life. They find that Mexican heritage is associated with belief in external control, even after taking into account lower education, income, and status. On the other hand, they propose that Mexicans have higher levels of support, creating contradictory effects on distress: lower levels of personal control among Mexicans increase depression levels, but proposed higher levels of supportive social networks decrease anxiety. Like Mexican Americans, Asian Americans and Asians in their home countries score significantly lower than others on the sense of control, adjusting for socioeconomic status and household composition (Sastry & Ross, 1998). Compared with Western culture's emphasis on individualism, Eastern culture, with its emphasis on familial commitment and subordination to the whole, may encourage individuals to attribute achievements to external causes.

Neighborhoods

Through daily exposure to a threatening environment, where signs of disorder are common, residents may come to learn that they are relatively powerless. Order is a state of peace, safety, and observance of the law; social control is an act of maintaining this order. On the other end of the continuum, neighborhoods with high levels of disorder present residents with observable signs and cues that social control is weak. In these neighborhoods, residents report noise, litter, crime, vandalism, graffiti, people hanging out on the streets, public drinking, run-down and abandoned buildings, drug use, danger, trouble with neighbors, and other incivilities associated with a breakdown of social control. The Ross-Mirowsky disorder scale measures physical signs of disorder such as graffiti, vandalism, noise, garbage, and abandoned buildings, and social signs such as crime, people hanging out on the street, people drinking, or using drugs (Ross & Mirowsky, 1999). Even if residents are not directly victimized, these signs indicate a potential for harm. Moreover, they indicate that the people who live around them are not concerned with public order, that residents are not respectful of one another and of each other's property, and that those in power have probably abandoned them. The signs of disorder in one's neighborhood signify collective threat. Further, the origins of neighborhood disorder are in disadvantaged neighborhoods that lack social and economic resources—neighborhoods with high levels of poverty and female-headed households and low levels of college educated adults and home ownership.

Perceived powerlessness is the sense that one's own life is shaped by forces outside ones control. Exposure to uncontrollable, negative events and conditions in the neighborhood in the form of crime, noise, vandalism, graffiti, garbage, fights, and danger promote and reinforce perceptions of powerlessness. In neighborhoods where social order has broken down, residents often feel powerless to achieve a goal most people desire—to live in a clean, safe environment free from threat, harassment, and danger (Geis & Ross, 1998; Ross, Reynolds, & Geis, 2000).

The sense of powerlessness further interacts with neighborhood disorder to produce mistrust. Through exposure to a threatening environment, residents may come to learn that other people cannot be trusted. The sense of powerlessness reinforced by a threatening environment amplifies the effect of that threat on mistrust, whereas a sense of control would moderate it. At heart, individuals who feel powerless feel awash in a sea of events generated by chance or by powerful others. They feel helpless to avoid undesirable events and outcomes, as well as powerless to bring about desirable ones. Individuals who feel powerless may feel unable to fend off attempts at exploitation, unable to distinguish dangerous persons and situations from benign ones, and unable to recover from mistaken complacency. In contrast those with a sense of personal control may feel that they can avoid victimization and harm and effectively cope with any consequences of errors in judgment. Neighborhood disorder signals the potential for harm. Some people feel they can avoid harm, or cope with it. Neighborhood disorder generates little mistrust among individuals who feel in control of their own lives, but a great deal among those who feel powerless. Disorder impairs residents' ability to cope with its own ill effect by also producing a sense of powerlessness. Neighborhood disorder destroys the sense of control that would otherwise insulate residents from the consequences of disorder for mistrust. Thus, the very thing needed to protect disadvantaged residents from further negative effects of their environment—a sense of personal control—is eroded by that environment (Ross, Mirowsky, & Pribesh, 2001). We call this structural amplification.

Formally, in structural amplification the mediator of an effect is also a moderator of the effect. Mediators link objective social conditions to outcomes. Mediators are a consequence of an exogenous variable and a cause of a dependent variable. They link exogenous variables to dependent variables. Moderators condition associations between objective conditions and outcomes, making the associations between exogenous and dependent variables stronger or weaker, depending on their level. Sometimes moderators buffer undesirable effects (Wheaton, 1985), but in structural amplification, moderators amplify ill effects, making them worse. Most importantly, in structural amplification, modifiers are also linked to social conditions. When modifiers of the association between a social condition and health result from the condition itself, this produces structural amplification (Ross et al., 2001). In this case, a sense of powerlessness amplifies the association between neighborhood disorder and mistrust, but the perception of powerlessness does not just come out of people's heads without reference to social conditions. It is also a consequence of neighborhood disorder. Structural amplification, like cumulating disadvantage, is one of the ways in which social stratification, inequality, and disadvantage accumulate to shape perceptions of personal control. The self-amplifying processes by which this happens are an important area for future research.

Emotional Consequences of Personal Control

People with high levels of personal control have low levels of psychological distress (Aneshensel, 1992; Gecas, 1989; Mirowsky & Ross, 1986, 1989; Pearlin et al., 1981; Ross & Mirowsky, 1989; Wheaton, 1980, 1983). Distress tends to be elevated among people who believe they have little influence over the things that happen to them, what is going to happen will happen, we might as well decide what to do by flipping a coin, and success is mostly a matter of getting good breaks. In comparison, distress is low among those who believe that when they make plans they can make them work, misfortunes result from the mistakes they make, there is really no such thing as luck, and what happens to them is their own doing. Similarly, increasing belief that “I have little control over the things that happen to me” increases distress over time whereas increasing belief that “I can do just about anything I really set my mind to,” or that “What happens to me in the future mostly depends on me” decreases distress over time (Pearlin et al.).

In addition to its direct, demoralizing impact, the sense of not being in control of the outcomes in one’s life can diminish the will and motivation to actively solve problems (Caplan & Schooler, 2007). Thus, perceived control moderates the association of stressors with distress, in addition to its mediating effect (Gadalla, 2009). Wheaton (1983) argues that fatalism decreases coping effort. Belief in the efficacy of environmental rather than personal forces makes active attempts to solve problems seem pointless: “What’s the use?” The result is less motivation and less persistence in coping and, thus, less success in solving problems and adapting. Taking Wheaton’s arguments a step further, the fatalist has a reactive, passive orientation whereas the instrumentalist has a proactive one. Instrumental persons are likely to search the environment for potentially distressing events and conditions, to take preventive steps, and to accumulate resources or develop skills and habits that will reduce the impact of unavoidable problems (e.g., driving carefully, wearing a seatbelt, and carrying accident insurance). When undesired events and situations occur, the instrumental person is better prepared and less threatened. In contrast, the reactive, passive person ignores potential problems until they actually happen, making problems likely to occur and leaving the person unprepared when they do. Furthermore, passive coping, such as trying to ignore the problem until it goes away, fails to limit the consequences of the problems. Thus, the instrumentalist is constantly getting ahead of problems whereas the fatalist is inevitably falling behind. The theoretical result is a magnification of differences: fatalists suffer more and more problems, reinforcing their perceived powerlessness and, thus, producing escalating passivity in the face of difficulties, and more and more distress.

Evidence that belief in external, as opposed to internal, control is associated with increased distress is strong and consistent. In addition to the sociological studies cited above, Benassi et al. (1988), conducted a meta-analysis of 97 studies in the psychological literature on locus of control and depression, finding a mean correlation of 0.31 between external control and depression (or, equivalently, a mean correlation of internal control and depression of −0.31). The effect was very consistent: Not one study found an effect in the opposite direction. Nonetheless this relationship may not hold under all circumstances. Next we ask a number of questions that address potential modifications of the basic association between perceived control and distress.

Depression and Anxiety

Is the sense of control associated with anxiety and anger, in addition to depression? Perceived powerlessness is demoralizing and enervating. If one cannot influence conditions and events in one’s own life, what hope is there for the future? Powerlessness undermines confidence and reinforces helplessness. It further undermines the motivation to solve problems or avoid them. This produces depression. We find that low levels of personal control correlate more strongly with depression than with anxiety

(Ross & Mirowsky, 2009). In a full information structural equation model, low levels of personal control significantly increased depression and anxiety, but the impact on depression was larger than on anxiety. This may result from the attentive and active problem-solving associated with a greater sense of control. An attentive and active approach combats the hopelessness and lethargy of depression, but can temporarily raise anxiety. The short-run increase in anxiety produced by *attentiveness* may offset the long-run decrease in anxiety produced by *effectiveness*. Anxiety and anger are active emotions; depression is a passive emotion (Ross & Mirowsky, 2008). Personal control's influence on anxiety and anger is an important area for further study since the little evidence available is inconsistent. Some research finds that personal control does not increase anger (Ross & Van Willigen, 1997), while another finds that it does, although the influence on anger is smaller than on depression (Ross & Mirowsky, 2008), and one study of the elderly finds a significant influence of perceived control on anger (Schieman & Meersman, 2004).

Control over Good and Bad Outcomes

It is not hard to believe that perceptions of control over good outcomes reduce distress, but does belief in responsibility for one's failures also reduce distress? The answer is "yes." Perceived control over both good and bad outcomes are associated with low levels of depression (Bulman & Wortman, 1977; Krause & Stryker, 1984; Mirowsky & Ross, 1990b). Increases in the belief that "I am responsible for my failures" and "My misfortunes result from the mistakes I have made" have as large and *negative* association with depression as do the beliefs that "I am responsible for my own successes" and "I can do just about anything I set my mind to." Denying responsibility for failure does not protect well-being; it is associated with as much depression as denying responsibility for success. Claiming control of both success and failure is associated with low levels of depression (Mirowsky & Ross, 1990b). In contrast, there is no measurable benefit from claiming responsibility for success while denying responsibility for failure (self-defense). Furthermore, the perception that positive outcomes are due to chance is as distressing as the perception that negative outcomes are due to chance. The sense that good outcomes are unpredictable, random, and due simply to luck is distressing, probably because it implies that the individual cannot increase the likelihood of his or her own success.

Feedback Between Personal Control and Depression

Does depression reduce perceptions of personal control? Since taking responsibility for bad outcomes (or failures) correlates *negatively* with depression it is hard to see how a reverse causal process could create the negative correlation between belief in personal control over bad outcomes and depression. People who are depressed often take responsibility for their failures (a *positive* correlation of depression with responsibility for failures) (Beck, 1972). Furthermore, follow-up studies show that one's initial sense of control and increases in one's sense of control are associated with decreased depression over time (Kohn & Schooler, 1982; Pearlin et al., 1981). Depression may somewhat reduce the sense of control, but the lag time required for the effect appears to be much longer and the reciprocal effect only boosts the association between personal control and depression by a very small amount (Golin, Sweeney & Shaeffer, 1981; Kohn & Schooler, 1982). Turner and Noh (1983) found a smaller but significant effect of earlier depression on change in personal control ($\beta = -0.11$) in addition to the larger effect of personal control on depression ($\beta = -0.26$). More research is needed that examines whether perceptions of control decrease distress, which in turn boosts personal control, in a self-amplifying process that creates larger and larger social inequalities in control and distress as people age.

Various External Attributions

There are various external attributions a person can make. People can attribute the outcomes in their lives to luck, chance, family background, other people, God, and so on. All these external attributions are logical opposites of internal control: Either I am in control of my life or not. If not, though, control could be in the hands of other people, or be due to luck, chance, or God. Only a few studies have looked at these separate external attributions. Both powerful others and chance attributions were associated with depression in psychiatric patients (Levenson, 1973), in alcoholics in treatment (Caster & Parsons, 1977), and in depressed and nondepressed subjects (Rosenbaum & Hadari, 1985). Overall, the attribution of outcomes to powerful others was slightly more distressing than the attribution to chance (overall mean correlation = 0.38 compared to 0.31) (Benassi et al., 1988). In a representative sample of Illinois residents, Ross (1990) compared attributions of success to one's own effort and ability with four types of external attributions—to luck, to God, to good connections, and to family background. Adjusting for sociodemographic characteristics, the willingness to express emotions, and the other attributions, personal control significantly reduced distress, attributions of success to luck and to good connections significantly increased distress, and attributions of success to God and family background were not related to distress. Schieman, Pudrovska, and Milkie (2005) found that belief in divine control is negatively associated with personal mastery among older Whites, but not Blacks, and further contributes to distress among elderly low SES Whites, but not Blacks (Schieman, Pudrovska, Pearlin, & Ellison, 2006).

In contrast to internal control, attributions of control to luck and to powerful others are distressing. There is nothing comforting about the attribution of outcomes to luck and chance. They imply that the world is unpredictable, uncertain, random, and uncontrollable, and consequently they are distressing. Anything, good or bad, could happen at any time, a perception that generates helplessness. The belief that good network connections determine success may be distressing because it implies that success is in the hands of other, more powerful, people. Attributions of success to connections with other people may indicate dependency. On the other hand, belief that outcomes are in the hands of God may provide some comfort, hope, and meaning, which counteract the external attribution, especially for disadvantaged groups such as older low SES Blacks (Schieman et al., 2006).

Diminishing Returns

Is there such a thing as too much perceived control? The idea of a threshold of dysfunction implies that there are diminishing subjective returns to an increasing sense of control, with a limit beyond which it increases distress (Wheaton, 1985). According to this view, the emotional benefits of a sense of control are largely the consequence of effective action. Effectiveness requires a combination of motivation and realistic appraisal. A greater sense of control implies greater motivation, but an excessive sense of control implies an unrealistic self-appraisal. Distress is minimized by a sense of control that balances motivation and realism. The threshold of dysfunction is the point at which the problems caused by illusory control exactly cancel the benefits from greater motivation (Mirowsky & Ross, 1990a, p. 1516). Wheaton found direct support for this idea in a parabolic model of perceived control (the linear term was significant and negative and the quadratic term was significant and positive), with the minimum depression occurring when perceived control was at about the 80th percentile. Mirowsky and Ross (2003) find this pattern, too, as shown in Fig. 19.4. Taking this idea a step further, Mirowsky and Ross (1990a, 1990b) asked whether diminishing benefits to psychological well-being from high levels of control result from illusory control, but not real control. Control perceptions predicted by status (income, education, age, and minority status) are considered realistic; perceptions not attributable

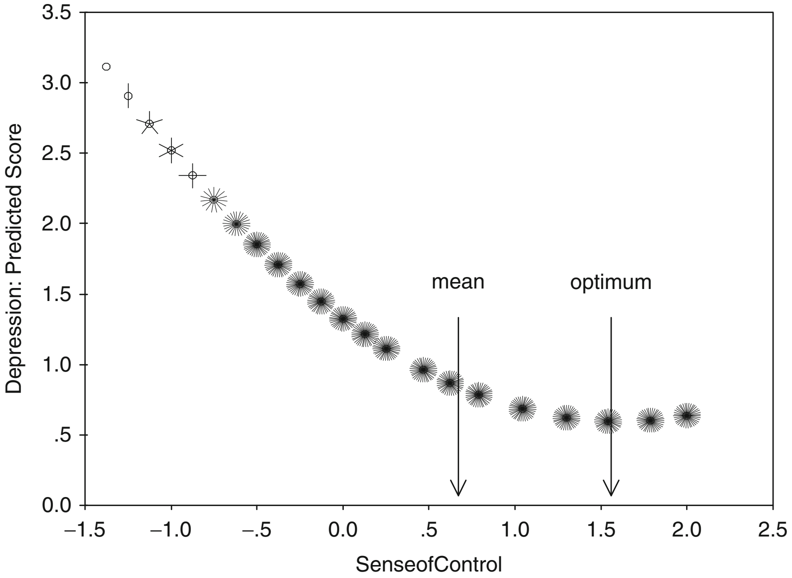

Fig. 19.4 Depression predicted from sense of control, illustrating diminishing incremental effects and the optimum sense of control. Each *circle* or *line* through a *circle* represents one person (Data are combined from 1985 and 1995 Illinois surveys and 1990 and 1995 US surveys, with a total of 7,905 persons (Mirowsky & Ross, 2003))

to social status are considered illusory. They find that the diminishing returns to high perceived control apply only to the sense of control not attributable to status. There are no diminishing subjective returns to a greater sense of control due to greater status.

Conditioning Factors

Is perceived control associated with less distress for all social groups? Some theorists have argued that a belief in external control may help *reduce* distress among people with little real power and control, in part by protecting self-esteem. Mirowsky and Ross (1984) and Wheaton (1985), however, found no significant difference between Anglos and Mexicans or Mexican Americans in the effect of fatalism on depression and anxiety, despite much higher levels of fatalism among persons of Mexican ethnic heritage and identity. For both groups, belief in external control significantly increased depression. Turner and Noh (1983) found that, in a group of women who had recently given birth, those with a low sense of control suffered more distress from low status and undesirable events, not less. Mirowsky and Ross (1990a, 1990b) found that low status persons (those with low levels of education, household income, older persons, and minority group members) are not consoled by a low sense of control. Fatalism and a sense of powerlessness are the recognition of a painful reality but do not soothe its discomfort.

Mediating Factors

What mediates the association between the sense of personal control and psychological distress? Few studies examine the processes by which perceived control affects psychological distress. However, Ross and Mirowsky (1989) found that problem-solving explained about 17% of the effect of perceived control on distress. Depression was comparatively low among people who responded that they did not simply ignore problems and hope they would go away, but instead, tried to figure out the cause of a problem and to solve it; and problem-solving was increased by perceptions of control. Likewise, Caplan and Schooler (2007) found that perceptions of powerlessness among persons of low SES increased distress under difficult economic conditions because they reduce effective problem-solving and increase emotion-focused coping. Thus, the basic precepts of personal control theory—that an attentive, active response to problems is increased by the sense of control and reduces depression—is supported, but may not be the whole story.

Social Support and Sense of Control

Perceived control and social support are two of the main links between social position and emotional well-being. What are the interrelationships among perceived control, support, and distress? Ross and Mirowsky (1989) describe three views of the relationship between control and support as sources of well-being: *displacement, facilitation,* and *functional substitution*. According to the first view, social support detracts from control and displaces active problem solving. Social support implies a network of reciprocity and mutual obligation that limits instrumental action while fostering dependence. People who solve their own problems have a greater sense of control and self-esteem and are more effective in solving problems than those who turn to others (Brown, 1978). Pearlin and Schooler (1978) conceptualize turning to others as the opposite of self-reliance, and they find that those who rely on themselves to solve their own problems have lower levels of distress than those who turn to others. Turner and Turner (1999) find that emotional reliance on others is associated with depression. According to the second view, social support facilitates problem-solving and instrumental action (Gadalla, 2009). The importance of support is not that one leans on others in times of trouble, but that perceptions of support give people the courage to act. This perspective would account for the finding that distress is reduced by the perception of available support if needed [perceived support], but not by the actual receipt of support [received support] (Wethington & Kessler, 1986).

Synthesis of these two views receives some support from Krause's (1987) finding that social support is associated with high personal control up to a point; but very high levels of support are associated with less perceived control. According to the third view, support and control can substitute for one another to reduce depression. They are alternative means of reducing perceived threat. Control provides confidence in one's ability; support provides confidence in one's worth. Each reduces distress, and each reduces the effect of otherwise stressful conditions (Turner & Noh, 1983). Thus, control is most beneficial—reduces distress the most—when support is low. Similarly, support is most beneficial when control is low. One resource fills the breach if the other is absent.

Ross and Mirowsky (1989) find significant negative effects on depression of control and support and a significant positive interaction between control and support. This means that the effect of personal control on depression is not as great at high levels of support as at low levels; and the effect of support on depression is not as great at high levels of perceived control as at low levels. Thus, the functional substitution (or resource substitution) perspective receives the most empirical support.

Personal and Universal Control

Personal and universal control significantly interact in their effects on depression. Belief in universal control, the belief that other Americans control their own lives, is related to a belief in the dominant American ideology of a meritocratic system in which there is ample opportunity for people to succeed if they work hard, on one end of the continuum, compared with a belief that the system is unfair and biased, on the other. Mirowsky et al. (1996) find that people with below-average personal control have lower depression, the more strongly they believe that most Americans control their own lives. People who feel unable to control their own lives are less depressed, not more depressed, if they think *most* Americans control their own lives. This interaction corroborates the view that control in principle is better than no control at all. It contradicts the view suggested by "revised learned helplessness" theory (Abramson, Seligman, & Teasdale, 1978; Peterson & Seligman, 1984) that people feel better about their own powerlessness if they regard it as systemic and universal, excusing themselves from responsibility for a helplessness shared by all. Belief that structural barriers and powerful others hinder achievement for other Americans does not mitigate the depressive effect of personal powerlessness. On the contrary, it exacerbates this effect: Americans who feel powerless find no comfort in the apparent powerlessness of others. Blaming fate or the system does not make people feel better, nor does blaming the successful. These results suggest that it is especially distressing to believe that most people's problems are caused by others who are selfish, greedy, or mean and that the people who have good things do not deserve them.

Conclusion

Some social conditions rob people of control over their lives. Disadvantage, joblessness, dependency, oppressive work, not finishing high school, poverty, and neighborhood disorder ingrain a sense of powerlessness that demoralizes and distresses. The most destructive situations hide from people in them the fact that everyone has a choice. However constricting the situation, it is better to try to understand and solve the problems than it is to avoid them or bear them as the inevitable burden of life. In the path to well-being, education is key: it supplies individuals with real control over their lives; improves choices, resources, and opportunities; and helps overcome other disadvantages. The sense of personal control is a major link between social conditions and mental health.

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Part V
Institutional Antecedents

Chapter 20
Family Status and Mental Health: Recent Advances and Future Directions

Debra Umberson, Mieke Beth Thomeer, and Kristi Williams

Early epidemiological research on family status and mental health produced three "social facts":

1. Marriage is beneficial to mental health.
2. Marriage benefits the mental health of men more than women.
3. Parenthood causes psychological distress, especially for women.

Until very recently, the first "fact" went largely uncontested, having roots in some of the earliest and most well-known sociological studies. For example, at the turn of the century, Durkheim (1897/1951) theorized about the benefits of social integration associated with marriage, leading to empirical tests and results suggesting that suicide rates were higher among the unmarried than the married. Working from a variety of theoretical perspectives throughout the twentieth century, sociologists continued to conclude that marriage benefits the individual. The second "fact" began to garner attention and generate controversy in the 1970s. Jesse Bernard (1972) argued that men and women experience "his and hers marriages," in which women sacrifice more of themselves than do men, particularly in providing services to a spouse. Furthermore, she argued that men receive more instrumental and psychological benefits from marriage than do women. Walter Gove (Gove & Tudor, 1973) similarly argued that women are more depressed than men and that this sex difference is largely due to women's more frustrating and less rewarding roles, especially their marital role. Dohrenwend and Dohrenwend (1976) contested Gove's conclusions, arguing that Gove presented evidence only for neurotic disorders and functional psychoses—disorders for which women are overrepresented relative to men. They argued that Gove's definition of mental illness left out some significant and serious disorders, particularly personality disorders that are more prevalent among men than women. The Dohrenwends argued that different types of disorders could be viewed as functional equivalents in the sense that men and women likely express psychological distress in different ways. Thus, women are not necessarily more distressed than men.

D. Umberson (✉) • M.B. Thomeer
Department of Sociology, The University of Texas at Austin, 1 University Station A1700,
Austin, TX 78712-1088, USA
e-mail: Umberson@austin.utexas.edu

K. Williams
Department of Sociology, The Ohio State University, Columbus, OH, USA

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A review of subsequent research on sex, marital status, and mental health would lead the reader to believe that Gove won this debate—at least in the sense that the sociological research community chose to focus on depression as the basic expression of emotional disturbance. In so doing, researchers continued to emphasize that women experience more emotional disturbance than do men. Therefore, researchers continued to seek explanations for women's greater distress, typically focusing on women's demanding family roles. Although research on family status and mental health continues to focus primarily on psychological distress and depression as the key measures of mental health, social scientists have renewed the emphasis on examining different expressions of emotional upset—expressions that may be more typical of one gender than the other. In addition, recent research is much more likely to rely on longitudinal data that can give us information about gender differences in baseline levels of psychological distress (and other outcomes) as well as trajectories of change in distress over time. In fact, recent longitudinal research raises new questions about the validity of long-held assumptions about gender, family status, and mental health. Finally, demographic trends in marriage and divorce rates and increasing acceptance of alternatives to marriage have altered the landscape of research on marriage and mental health.

Most sociologists in the 1970s, including Gove and the Dohrenwends, worked from an epidemiological model. This model assumes that sex and marital status differences in official reports of emotional disturbance are real and strongly influenced by the social environment. However, later research began to question the validity of these findings, emphasizing that research questions and methods are socially constructed. For example, had researchers focused on substance abuse rather than psychological distress and depression, men would have been labeled as more disturbed than women (Rosenfield, Lennon, & White, 2005; Simon, 2002). Sociologists might then have searched for elements of men's social roles that contribute to their greater distress. The bottom line is that research conclusions depend on the questions we choose to ask, as well as how we choose to measure marital status and mental health and analyze our data (Rieker & Bird, 2005; Rosenfield et al. 2005; Simon, 2002).

Why did the socially constructed "fact" that women are more emotionally disturbed than men and that marriage is good for individuals—but better for men—come into being? The socio-political backdrop of the 1970s included the Women's Movement and questioning of traditional institutions such as marriage. In turn, a great deal of research attention was devoted to family status and women's roles. The claim that women's roles are more stressful than men's roles, and that women's stressful roles are conducive to women's higher rates of emotional disturbance relative to men's, fit perfectly with the socio-historical moment. Jessie Bernard's (1972) claims could hardly have been made in a previous historical period:

> Despite all the jokes about marriage in which men indulge, all the complaints they lodge against it, it is one of the greatest boons of their sex. (p. 17)

> A generation ago, I propounded what I then called a shock theory of marriage. In simple form, it stated that marriage introduced such profound discontinuities into the lives of women as to constitute genuine emotional health hazards. (p. 37)

Much of the emotional health hazard of marriage for women was attributed to their wife/mother role. This orientation helped shape the third "social fact" regarding family status and mental health—that parenthood is detrimental to psychological well being, especially for women.

A great deal of research on gender, family status, and psychological distress has accumulated over the past 40 years. The most recent research in this area leads us to qualify all three of these social facts about family status and mental health. We review the current state of epidemiological evidence on the linkages between gender, family status, and psychological distress to arrive at the contemporary answers to questions about whether and why such linkages exist. In light of the changing answers to these questions, we also consider the socially constructed nature of this work.

The Epidemiological Model

Social-structural theory provides the foundation for epidemiological research on family status and mental health. Structuralists contend that one's social environment has profound implications for life experiences. The social environment is largely shaped by one's position in the social structure as determined by elements of stratification such as gender, marital status, race, and socioeconomic status. Whether one is male or female, married or unmarried, African- American or white, rich or poor determines the types of structural opportunities, demands, and constraints that an individual faces on a day-to-day basis. In turn, structural positions associated with more demands and constraints and fewer opportunities are more stressful and lead to greater psychological distress. Sociological research on the family typically adopts a social-structural approach to argue that marriage and family define one's social environment in key ways that affect mental health. For example, the married have more socioeconomic resources and are more likely to have a confidant, compared to the unmarried. In turn, these aspects of the social environment are conducive to mental health, partly explaining why the married exhibit better mental health than the unmarried. Gender differences in the effects of marital status on mental health are often attributed to women's greater role obligations within marriage and family that undermine the value of the marital environment for their mental health.

Marital Status, Gender, and Mental Health: The Evidence

Until the past decade, generally, no one questioned the assumption or cross-sectional evidence that the married exhibit lower rates of psychological distress than the unmarried. The dominant conclusion from this body of work was that marriage provides individuals (especially men) with a range of benefits that enhance psychological well-being—a perspective described as the *marital resource model* (Williams & Umberson, 2004). Among the most important recent developments in the study of marital status and mental health is the consideration of alternative explanations for this association. A fundamental question is whether marriage actually improves mental health or whether the married only appear to have better mental health than others because: (a) they have not experienced the substantial strains of marital dissolution (stress model) or (b) because they differ from the unmarried on a range of pre-existing variables, including better initial mental health and/or variables associated with mental health (selection model).

The cross-sectional data underlying assumptions about the benefits of marriage were ill-equipped to differentiate between these alternative explanations. Additionally, despite the increasing complexity of "marital status," the married were often simply compared to the unmarried, with the unmarried group defined in various ways—sometimes combining the divorced/separated, widowed, and never-married, and sometimes including only some of these groups. This approach produces indecipherable results because the effect of being married is highly contingent on which groups are compared. Additional statuses often left out of these discussions include the remarried and cohabitors. As we shall see in this section, the mental health advantage of marriage may be great, negligible, or nonexistent, depending on the group (i.e., divorced, widowed, never-married, cohabiting, remarried) against which the married are compared. Contemporary trends raise questions about how marital status should be operationalized. The current definition focuses on legal marital status. But contemporary living arrangements and relationship patterns do not easily fit into these categories. Ross (1995) argues that it would be more useful to view intimate partner relationships along an attachment continuum. This continuum would take into account individuals who cohabit as well as individuals with significant (e.g., nonmarried, noncohabiting, and nonheterosexual) relationship commitments. This particular perspective works from the premise that the primary ingredient of marriage that is significant for mental health is a secure attachment to a supportive individual. Those working from a more Durkheimian tradition, however, argue that the construct of marriage is much more than support and attachment (Waite, 1995). In fact, legal marriage involves obligations and constraints in addition to, and even in the absence of, socioemotional support and feelings of attachment. These various dimensions of social integration through marriage may have substantial mental health consequences—some positive and some negative. Attempts to define marriage in terms of its constituent parts may enable us to better identify some of the specific components of committed relationships that affect mental health.

Most studies conducted over the past 10 years more directly address questions of how marriage influences mental health by using longitudinal data to distinguish marital status transitions from marital status continuity and to identify the temporal patterning and duration of changes in mental health that follow changes in marital status. Thus, studies: (a) assess how mental health changes in response to entrances into and exits from marriage, (b) consider whether changes in mental health associated with marital transitions persist over time, and (c) examine the extent to which earlier mental health predicts entry into or exit from marriage. This work has led to a more nuanced understanding of both the benefits and potential costs of marriage, singlehood, and marital dissolution to mental health and a rethinking of previous assumptions about gender differences in these associations. Because several excellent reviews of earlier literature exist (Avison, 1999; Ross, Mirowsky, & Goldsteen, 1990; Umberson & Williams, 1999; Waite & Gallagher, 2000), we highlight this longitudinal research, most of which has been published since 1999.

Entry into Marriage

Recent longitudinal research generally supports the marital resource model by showing that entering into marriage is associated with increases in psychological well-being and declines in psychological distress (Evans & Kelley, 2004; Frech & Williams, 2007; Kim & McKenry, 2002; Lamb, Lee, & DeMaris, 2003; Simon, 2002; Strohschein, McDonough, Monette, & Shao, 2005; Williams, 2003; Williams, Sassler, & Nicholson, 2008). A few studies, however, find no significant improvement in mental health with entry into marriage (Hope, Rodgers, & Power, 1999; Wu & Hart, 2002). Recent evidence also challenges traditional assumptions that men benefit more from marriage than women. Multiple longitudinal studies suggest no gender differences in the average mental health benefit associated with transition into marriage (Evans & Kelley, 2004; Kim & McKenry 2002; Simon 2002; Strohschein et al. 2005; Williams 2003) particularly when measures of alcohol abuse are included as indicators of distress among men (Marcussen, 2005; Simon 2002). The growing availability and analysis of panel data has contributed to an understanding of selection processes. Several longitudinal studies of marital transitions and mental health use lagged dependent variable models to compare the subsequent mental health of those who enter marriage with that of those who remain unmarried, while controlling for baseline mental health (Barrett, 2000; Simon & Marcussen, 1999; Simon 2002). This approach controls for differential selection into marital unions on the basis of prior mental health. However, because those who marry and those who remain single likely differ on additional factors associated with mental health, some of which are unobserved by the researcher, this design does not eliminate the possibility of selection bias. A recent development is the use of fixed effects models to estimate the effect of marital transitions on within-individual changes in mental health (Johnson, 2005). The limited evidence available suggests that, after accounting for unobserved heterogeneity, marriage entry is associated with modest (Musick & Bumpass, 2010) or nonsignificant (Wu & Hart, 2002) improvements in mental health and modest increases in subjective well being (Zimmermann & Easterlin, 2006).

Despite the substantial strengths of longitudinal designs for establishing causal order and minimizing selection bias, they introduce additional challenges that complicate conclusions about the benefits of marriage. Analyses of transitions into marriage typically examine subsequent change in mental health across a relatively short period and, therefore, cannot detect potential long-term mental health benefits that may accumulate over the life course. Exceptions are studies which show that marital history or the proportion of time spent married is strongly and positively associated with physical health later in the life course (Hughes & Waite, 2009; Zhang & Hayward, 2006), but similar studies using mental health outcomes are currently lacking.

An additional complicating factor is the timing of measurement for initial levels of mental health. Any mental health enhancing benefits of marriage (e.g., emotional support, financial resources) likely begin to accrue even before the marriage ceremony, especially as an increasing number of adults cohabit prior to marriage. Several studies indicate that life satisfaction begins to increase more than 2 years prior to the entry into marriage and declines sharply after an initial honeymoon period (Lucas, Clark, Georgellis, & Diener, 2003; Stutzer & Frey, 2006; Zimmermann & Easterlin, 2006). To the extent that depressive symptoms follow a similar pattern, longitudinal models that control for mental health shortly before a marital union likely underestimate the overall mental health benefits of the relationship itself. Recent evidence that marriage entry is not associated with substantial improvements in mental health (Musick & Bumpass, 2010; Wu & Hart, 2002) may be due in part to the timing of the initial measurement of the dependent variable. In contrast, measuring the dependent variable shortly after marriage entry may capture temporary honeymoon effects and suggest greater benefits of marriage to mental health than would be observed using a longer time horizon.

In sum, longitudinal research on the mental health consequences of entry into marriage indicates that the magnitude of the protective effect of marriage on mental health is much smaller than was previously suggested by cross-sectional studies. However, this may be due in part to the relatively short time period for the existing longitudinal evidence. Future research that considers mental health trajectories over the course of entire relationships and across a longer portion of the life course will be important in addressing this question. Furthermore, although most studies on marital status and mental health emphasize the importance of ruling out selection effects, it would be useful in future research to emphasize how selection effects operate in conjunction with causal effects of marital status. A number of scholars now emphasize the potential historic specificity of marital status effects on mental health (Marks, 1996). In the past, the vast majority of married individuals and US societal values strongly emphasized the positive value and importance of marriage for individuals. As more individuals live in unmarried statuses, and as the sociocultural experience of living in various marital statuses changes, the balance of selection and causal effects may change. This balance may also differ across gender lines as well as other sociodemographic characteristics.

Divorce and Widowhood

Compared to the modest mental health benefits of marriage entry, the costs to mental health of exiting marriage through divorce or widowhood are substantially stronger. A preponderance of longitudinal studies show that divorce (Hope et al., 1999; Kalmijn & Monden, 2006; Kim & McKenry, 2002; Simon, 2002; Strohschein et al., 2005; Williams, 2003; Wu & Hart, 2002) and widowhood (Barrett, 2000; Carr, 2003; Carr et al., 2000; Lee & DeMaris, 2007; Hagedoorn et al., 2006; Lucas et al., 2003; Strohschein et al., 2005; Wade & Pevalin, 2004; Wilcox et al., 2003; Williams, 2003) are associated with substantial decline in mental health. Widowhood, in particular is associated with strong declines in mental health but studies generally suggest that, on average, adults recover over time (Lee & DeMaris, 2007; Wilcox et al., 2003, but see Lucas et al., 2003). Thus, the association of widowhood with poor mental health is probably more reflective of the stress of widowhood than of a loss of the resources provided by marriage.

Whether the marital resource model or stress model best explains the effect of divorce on mental health is less clear. Numerous studies work from the premise that marital dissolution—both the event and the process—are stressful for individuals. Amato (2000) distinguishes between marital dissolution as a stressful life event from which individuals typically recover after a couple of years and marital dissolution as characterized by lasting life strains (e.g., economic hardship, single parenting, and social isolation) that lead to persistent psychological distress. Booth and Amato (1991) provide evidence for the first perspective following divorce, showing that after approximately 2 years following divorce, the divorced do not significantly differ from the married on psychological distress. However, more recent studies indicate that declines in mental health associated with divorce do not rebound over time (Hetherington & Kelly, 2002; Johnson & Wu, 2002; Lucas, 2005), perhaps because the divorced have lost the resources provided by marriage. The persistence of mental health differences between the divorced and the married could also result from cumulative negative effects of enduring chronic strains (e.g., ongoing financial strain, single parenting) that are often produced by stressful life events like divorce (Wheaton, 1999).

Tests of selection into divorce/widowhood based on prior mental health are complicated by the likelihood that, within individuals, the processes leading to marital dissolution (poor marital quality in the case of divorce and spousal illness in the case of widowhood) produce poor mental health. Thus, although several studies show that poor mental health precedes marital dissolution (Blekesaune, 2008; Wade & Pevalin, 2004), it is unclear whether this is simply capturing the negative mental health consequences of the beginning of the dissolution process or whether poor mental health itself exerts a causal effect on mental health (selection). This view of marital dissolution as a process further clouds the ability to determine whether mental health recovers following marital dissolution—an important strategy for distinguishing between the marital resource versus stress explanations. If the process of dissolution begins to negatively affect mental health prior to the actual divorce from or death of the spouse, later improvements in mental health following marital dissolution may reflect a return to an already elevated level of distress rather than full recovery.

Recent evidence of gender differences in the effects of divorce is inconsistent. Some studies report that women's mental health is more adversely affected than men's by divorce (Kalmijn & Monden, 2006; Marks & Lambert, 1998; Simon, 2002) whereas others find no gender difference (Kim & McKenry, 2002; Strohschein et al., 2005; Williams, 2003). This discrepancy may occur, in part, because studies use samples that differ in length of time divorced and in the choice of control variables. The adverse mental health consequences of widowhood are consistently stronger for men than for women across a range of studies (e.g., Fry, 2001; Stroebe, Stroebe, & Schut, 2001). Even if the mental health of men and women is affected similarly by marital dissolution, the processes through which this occurs likely differ. For example, marital dissolution appears to place a greater financial burden on women, but adapting to the demands of household management and maintaining relationships with children may be more difficult for men (Ha, Carr, Utz, & Neese, 2006; Orbuch & Eyster, 1997; Umberson, Wortman, & Kessler, 1992). Few studies consider how the impact of divorce and widowhood on mental health vary by race, ethnicity, or socioeconomic status but recent work on intersectionality emphasizes that effects of gender on life outcomes further depend on race, class, and other structural systems (Choo & Ferree, 2010; Greenman & Xie, 2008; McCall, 2005; Shields, 2008).

Remarriage

Research on remarriage consistently finds that among the currently married, those who have ever been divorced or widowed have worse mental health than those who have not, and this benefit is not accounted for by socioeconomic or psychological resources (Barrett, 2000; Bierman, Fazio, & Milkie, 2006; Hughes & Waite, 2009; LaPierre, 2009). Remarriage does, however, benefit mental health compared to remaining divorced or widowed, at least in the short term (Blekesaune, 2008). The psychological benefit from remarriage is weaker than that of first marriage (Marks & Lambert, 1998). Interestingly, contemporary evidence for the notion that marriage benefits men more than women is stronger for remarriage following divorce or widowhood than for first marriage. Despite a few exceptions (Barrett, 2000; Simon, 2002), most studies indicate stronger mental health benefits of remarriage for men than women

(LaPierre, 2009; Williams, 2003). There appears to be greater age heterogeneity in the effects of remarriage on women's compared to men's mental health, with women benefitting most from remarriage in midlife. This may reflect women's greater responsibilities for childcare and forging interpersonal relationships in blended families, particularly earlier in the life course when remarriage is most likely to involve being a stepparent to young children. Several studies indicate that the stepparent role is more stressful for women than men (Schmeeckle, 2007; Stewart, 2005a).

Cohabitation

Cohabitation warrants greater attention in studies of marital status and mental health based on the increasing number of individuals who occupy this status and the demographic evidence that individuals who cohabit are spending longer periods of time in this status (Smock, Manning, & Gupta, 1999). Recent longitudinal evidence suggests that, on average, cohabitation offers very few benefits to mental health compared to remaining unpartnered. Several studies find that entering cohabitation is not associated with improved mental health over time (Kim & McKenry, 2002; Lamb et al., 2003; Musick & Bumpass, 2010; Williams et al., 2008; Wu & Hart, 2002). Additionally, cohabitation appears to offer fewer mental health benefits compared to marriage. Several studies find that cohabitors report greater levels of psychological distress and depression than their married counterparts (Brown, 2000; Brown, Bulanda, & Lee, 2005; Kim & McKenry, 2002; Marcussen, 2005; Wu, Penning, Pollard, & Hart, 2003). Differences in relationship quality (Marcussen) and union stability (Brown, 2000, 2003) appear to explain much of the mental health difference between the married and the cohabiting. More than half of all cohabiting relationships end in 2 years (Kennedy & Bumpass, 2008).

These average associations, however, likely mask substantial variation in the nature of cohabiting unions and in their consequences for mental health. Cohabitation is a precursor to marriage for many adults: half of cohabitors marry their partners (Bumpass & Lu, 2000). There are few differences in the relationship quality of these couples compared to the married. An important avenue for future research is to determine whether cohabitation offers greater mental health benefits among those for whom it is a precursor to marriage compared to those who cohabit as an alternative to marriage (Manning & Smock, 2005) or who are motivated primarily by economic concerns or convenience (Sassler & McNally, 2003). Given the absence of legal marriage options for most gay and lesbian couples, future research should also consider how long-term cohabitation is associated with mental health in this population. Furthermore, as legal marriage becomes available to more gay and lesbian couples, the institutional benefits of marriage can be compared to those of cohabitation.

Although gender has not been a dominant focus of research on cohabitation and mental health, Brown et al. (2005) find that, at least among older adults, the mental health benefits of marriage versus cohabitation are observed among men and there are no differences among women. The pattern may be different for younger adults. Musick and Bumpass (2010) find that, among adults under the age of 50, there are no significant gender differences for the effects of cohabitation. As with marriage, this may depend on what outcomes are analyzed. A cross-sectional study by Marcussen (2005) finds that cohabitors are significantly more likely to report heavy alcohol consumption than married individuals, even net of sociodemographic variables, coping resources, and relationship quality.

What Is It About Marriage That Is Beneficial to Mental Health?

Taken together, recent evidence suggests that entry into marriage is associated with modest improvements in mental health and exits from marriage are associated with mental health deficits, some of which appear to persist over time. This longitudinal evidence has done much to buttress the argument that marriage positively influences mental health, while at the same time questioning previous assumptions about the magnitude and duration of effects. Ultimately, however, demonstrating a causal effect of marital status on mental health requires identification of the specific mechanisms through which these benefits are conferred. Although longitudinal studies on mechanisms are lacking, much of the early cross-sectional research on marital status and mental health included a focus on the psychosocial processes through which marital status affects mental health. The most frequently identified explanations for the positive effects of marriage are that marriage provides its participants with (1) economic resources; (2) social integration, including socioemotional support and attachment; and (3) a sense of meaning and purpose.

Economic Resources

Economic resources are positively associated with mental health (Inaba et al., 2005; Kessler, 1982; Kessler, Mickelson, Walters, Zhao, & Hamilton, 2004; Ross & Huber, 1985) and the married have more economic resources than do the unmarried (see Ross et al., 1990; Holden & Kuo, 1996; Zick & Smith, 1991). The economic benefits of marriage primarily derive from the dual-earning potential of the married, and these benefits exist for men as well as women (Ross et al.). One of the major reasons that divorce and widowhood undermine mental health is that marital dissolution typically results in reduced economic resources, particularly for women (Angel, Jiménez, & Angel, 2007; Shapiro, 1996; Smock et al. 1999; Zick & Smith, 1991). Mirowsky (1996) finds that financial strain explains 16% of the gender difference in depression (i.e., women's higher level of depression); furthermore, he argues that women's financial strain increases over the life course partly because of the lasting effects of divorce and widowhood on financial status. Several authors suggest that the relatively low rates of depression among the remarried and cohabitors compared to other unmarried persons may be due, in part, to the economic benefits of living with a partner (Chevan, 1996; Cooney & Dunne, 2001; Ross et al., 1990).

Social Integration and Social Support

Durkheim (1897/1951) argued that marriage is an important source of social integration—providing a sense of social connectedness and obligation. In recent empirical research, social integration typically refers to the presence or absence of certain key relationships. Marriage is typically viewed as the most significant of such relationships. The available evidence suggests that simply avoiding social isolation does not provide the unmarried with the mental health benefits offered by marriage: Two studies demonstrate that the mental health of unmarried persons who live alone does not significantly differ from that of unmarried persons who live with another person (Alwin, Converse, & Martin, 1985; Hughes & Gove, 1981). A more recent study of older adults in Florida found that living alone was associated with higher levels of depressive symptoms among Hispanics but not among non-Hispanics (Russell & Taylor, 2009). The aspects of social integration viewed as most significant by Durkheim—purpose, obligation, and belonging—have not received much research attention but may explain some of the impact of marital status on mental health. Several studies suggest that the sense of obligation and responsibility associated with marriage (and parenthood) may inhibit suicidal impulses and substance abuse. Suicidal impulses and substance abuse reflect mental health (Umberson, 1987).

The vast body of research on social support taps into Durkheim's idea of social connectedness as a dimension of social integration. Social support refers to "a flow of emotional concern, instrumental aid, information, and/or appraisal (information relevant to self-evaluation) between people" (House, 1981, p. 26). Married persons are more likely than unmarried persons to report that they have a relationship characterized by social support, and they, especially men, are most likely to identify their spouse as their closest confidant (Fuhrer & Stansfeld, 2002; McPherson, Smith-Lovin, & Brashears, 2006; Umberson, Chen, House, Hopkins, & Slaten, 1996). Of course, unmarried individuals may also have an emotionally supportive relationship with another person. In fact, cohabitors are more likely than the divorced, widowed, and never-married to have an emotionally supportive relationship—partly explaining why their mental health is more similar to the married than the divorced, separated, and widowed (Ross, 1995). However, Ross and Mirowsky (1989) report that the unmarried have higher levels of depression than the married even when emotional support is controlled, suggesting that social support alone cannot explain the mental health benefits of marriage. Rather, Ross shows that the benefits of marriage are best explained by both emotional support and social attachments—defined as "a sequence of increasing commitments in adult relationships" (Ross, 1995, p. 131).

Purpose and Meaning

Building a life with another person often involves building a shared culture and value system, a sense of purpose and meaning, and plans for the future. These activities shape personal and social identity in ways that enhance an individual's sense of self (Marks, 1996). The social approval accorded to marriage may also enhance self-views (Marks). Purpose and meaning have received very little direct research attention; however, Marks reports that the separated/divorced and the never-married score significantly lower than the married on a Purpose-in-Life Scale.

Certainly, the symbolic meaning of marriage (or any other marital status) is not the same for all individuals. Several scholars argue that the social context of marriage—as well as other marital statuses—shapes the meaning of that marital status for the individual (Amato, 2010; Marks, 1996; Umberson et al., 1992; Wheaton, 1990; Williams, Takeuchi, & Adair, 1992). In turn, the meaning of that status shapes its mental health consequences. For example, Wheaton reports that individuals who experience more marital strain prior to divorce or widowhood exhibit less psychological distress in response to marital dissolution than those whose marriages seemed less problematic. Marital dissolution may mean relief for those who had been in strained marriages, whereas it may mean substantial loss for those in relatively unstrained marriages.

The meaning of marital status may also differ across social groups. For example, recent work suggests that marriage has become less normative for African-Americans, and that this might reduce the distress associated with marital dissolution for African-Americans (Carr, 2004; Pudrovska, Schieman, & Carr, 2006). Umberson et al. (1992) report that widowhood is more detrimental to the mental health of men than women, in part, because widowhood has a different meaning for women and men. For example, widowhood may be more likely to symbolize loneliness and an inability to manage daily affairs for men, whereas women may be more likely to see widowhood as a period of newly discovered self-sufficiency (Carr et al., 2000; Carr, 2004; Umberson et al., 1992). Marital status, as well as the meaning attached to one's marital status, may also influence feelings of mastery or personal control. Marks (1996) finds that the married report significantly higher levels of mastery than do the never-married and the divorced/separated (also see Waite, Luo, & Lewin, 2009). In turn, mastery contributes to enhanced mental health (Mirowsky & Ross, 2003). Research on the meaning of marital status for individuals may help to explain variation in mental health within as well as across marital statuses.

Moving Beyond Averages: Heterogeneity in The Effects of Marital Status on Mental Health

One of the most important recent developments in research on marital status and mental health is the identification of substantial heterogeneity in the potential mental health benefits of marriage and the costs of marital dissolution. This growing body of research suggests that a wide range of individual, demographic, and relationship characteristics are important in shaping the context in which marital status and family relationships are experienced and, thus, their consequences for mental health. Among the most important potential moderators of the effect of marital status on mental health (in addition to gender, as we have described) are marital quality, race, and age/life course position.

Marital Quality

The extent to which marriage offers benefits to mental health is highly dependent on marital quality. Several studies indicate that poor marital quality undermines mental health even more than being unmarried (Hagedoorn et al., 2006; Hawkins & Booth, 2005; Williams, 2003). Moreover, declines in mental health associated with divorce are weaker for those exiting a marriage characterized by poor marital quality (Hawkins & Booth, 2005; Kalmijn & Monden, 2006; Williams, 2003). Among the married, it is clear that the quality of marriage is strongly associated with mental health and well-being (Frech & Williams, 2007; Hawkins & Booth, 2005; Proulx, Helms, & Buehler, 2007; Whisman, 2007). In a meta-analysis of 93 studies, Proulx and colleagues find that the relationship between marital quality and personal well-being, which includes depression, is strongest when personal well-being is the dependent variable, and that the association between marital dissatisfaction and depressive symptoms is stronger for women than for men. The association is also stronger when marital quality is measured along negative (i.e., amount of conflict) rather than positive (e.g., marital satisfaction) dimensions.

Numerous factors affect marital quality and, thus, likely shape the extent to which marriage offers mental health benefits. Some studies find women's employment is positively associated with marital instability (Schoen, Astone, Rothert, Standish, & Kim, 2002) and the probability of divorce (Sayer & Bianchi, 2000), although some evidence indicates this association applies to whites but not African-Americans (Teachman, 2002), and that the relationship is insignificant when models include variables of gender ideology and marital quality (Sayer & Bianchi, 2000). This may be due to the fact that greater personal income enables women to leave unsatisfactory relationships or because the higher income of women somehow contributes to marital conflict. On the other hand, this relationship may be shifting, as married couples increasingly expect that both spouses will work for pay (Bianchi, Milkie, Sayer, & Robinson, 2000; Rogers, 2004; Sayer, 2005). Additionally, women employed in the paid labor force report higher marital satisfaction (Rogers & DeBoer, 2001) than homemakers, and increases in married women's incomes is associated with increases in their personal happiness (Rogers & DeBoer). One longitudinal study found that wives' employment increased the risk of divorce in unhappy marriages, but not in happy marriages (Schoen et al., 2002). Also, overall family income (largely determined by male income) seems to contribute to marital quality, perhaps because income serves as a resource that protects couples, and because higher male income is viewed as an important component of the married male role (Kalmijn, Loeve, & Manting, 2007). The transition to parenthood and having minor children is often linked to reduced marital quality (Doss, Rhoades, Stanley, & Markman, 2009; Lawrence, Rothman, Cobb, & Bradbury, 2009); however, one longitudinal study suggests that couples who become parents as well as those who do not become parents experience a decline in marital quality over time, though the decline is steeper for those with children (Kurdek, 1999). The presence of minor children may undermine marital quality because the presence of children leads to a more traditional division of labor in the home, increases the amount of labor in the home, detracts from marital and sexual intimacy, decreases leisure time, and increases financial strain (Benzies, Harrison, & Magill-Evans, 2004; Claxton & Perry-Jenkins, 2008; Umberson, Pudrovska, & Reczek, 2010).

Race

Surprisingly few studies have directly examined race and ethnic differences in the effects of marital status on mental health. Although early cross-sectional research suggested that the association of marital dissolution with poor mental health was stronger for African-Americans than for whites (Williams et al., 1992), more recent longitudinal research indicates no difference in the mental health consequences of divorce for African-Americans and whites (Barrett, 2003). Understanding race/ethnic variation in the mental health consequences of entrances into and exits from marriage represents an important area of future research. Although it is clear that rates of marriage and divorce differ markedly by race in the USA, it is also likely that the social context and meaning of each marital status and, therefore, its consequences for mental health differ by race as well (Bulanda & Brown, 2007; Gove & Shin, 1989; Wildsmith & Raley, 2006).

Age and the Life Course

The relationship between age and depression is U-shaped, with higher rates of depression for the youngest and oldest adults and lower rates of depression for those in their middle-adult years (Mirowsky & Ross, 1992, 2003). Mirowsky and Ross (2003) find that controlling for marital status (and employment status) flattens the U-shaped relationship between age and depression to insignificance. Mirowsky (1996) argues that the gender gap in adult statuses (i.e., marital status, housework and childcare, unemployment, and financial status) contributes to higher rates of depression among women relative to men. Furthermore, this gender gap increases as individuals age because adult statuses become more unequal and disproportionately stressful for women. With age, women are more likely to be widowed, to experience falling financial resources, and divorce is more likely to create lasting economic hardship for women. In summary, marital status, and the social context associated with different marital statuses, is largely responsible for the gender gap in depression. Individuals may also become more vulnerable to marital strain with age. One recent study shows that the adverse effects of marital strain on physical health increase with age (Umberson, Williams, Powers, Liu, & Needham, 2006).

Researchers also focus on the normative status of widowhood and divorce in predicting their effects for different age groups. Since divorce is more common among the young, its negative impact on mental health should be greater for older individuals. Conversely, since widowhood is more common and normative among older individuals, its negative effect on mental health should be greater for the young. Generally, research confirms the latter hypothesis for widowhood (Luoma & Pearson, 2002; Schoenborn, 2004); however, studies examining age differences in the mental health effects of divorce produce conflicting results. Wang and Amato (2000) analyzed data from 208 individuals who divorced over a 17-year period and found that older adults showed poorer adjustment than younger adults. The age pattern could depend on mental health outcomes. Data on suicide rates indicate that young widowed men (aged 20–34) are far more likely to commit suicide than their married counterparts, as compared to women and older men (Luoma & Pearson). Other dimensions of the life course, including the age of children and the sequencing of marriage and parenthood also play a role in shaping the consequences of marital status for mental health. For example, Williams and Dunne-Bryant (2006) find that the greatest increases in depressive symptoms associated with divorce are experienced by adults (especially women) with preschool-aged children in the home. For others, divorce is associated with only modest declines in mental health. The life course sequencing of marriage and parenthood are also important. Williams and colleagues (2008) find that entering and exiting marriage through divorce is worse for the mental health of women who have had a nonmarital birth than for childless women and worse than remaining single. It is likely that multiple dimensions of the life course (e.g., age, marital duration, role sequencing) interact in complex ways with sociodemographic characteristics (e.g., gender, race/ethnicity, socioeconomic status) shaping the consequences of family status for well-being. Exploration of this heterogeneity represents an important direction for future research.

Parental Status and Mental Health: The Evidence

Stereotypes abound about both the perils and the rewards of parenthood and evidence may be found to support either position. Parenthood clearly affects psychological well-being but whether in a positive or negative manner depends on the social context of parenthood. While the 1950s' view was that parenthood was an important developmental task for adults (Erikson, 1978), around the same time, sociologists first began to suggest that raising children was stressful for parents, and the 1980s saw research to support this view (Cowan et al., 1985; Wright, Henggler, & Craig, 1986). On the other hand, studies suggested that having adult children might be better than remaining childless for mental health (Umberson, 1992). Clearly, it is the strains and rewards associated with particular social contexts, although especially the strains, that determine how parenting affects psychological well-being. Most studies on parental status and psychological well-being focus on either parenting of young children or parenting in later life but recent research points to the importance of taking a life course perspective in that parenthood influences "trajectories of change in well-being" in a cumulative fashion over the life course (Milkie, Bierman, & Schieman, 2008; Umberson et al., 2010). We summarize the evidence for a parenthood/well-being link in research on (1) the transition to parenthood and parenting of young children, (2) parents with adult children, (3) childless adults, and (4) cumulative effects of parenting on well-being over the life course. Throughout this discussion, we emphasize that the strains and rewards of parenting are not distributed equally in the population, with important implications for group differences in effects of parenthood on psychological well-being. A great deal of research considers gender differences in the effects of parenthood and, over the past decade, social scientists have also considered race, ethnic, and socioeconomic variation in the experience and consequences of parenthood.

Transitions to Parenthood and Children

The transition to parenthood may be a period of risk for increased psychological distress and depression, yet this risk appears to exist primarily for those who make an early transition to parenthood. Mirowsky and Ross (2002) find that men and women (aged 18–95 at the time of the interview) who became a parent prior to age 23 were more depressed than their childless counterparts, while those who became a parent at 23 or older were less depressed than their childless counterparts. Other studies focus on the period shortly following the transition to parenthood. Knoester and Eggebeen (2006) analyze a sample of men between the ages of 19 and 65 and find no effect of the transition to parenthood on fathers' well-being. Booth, Rustenbach, and McHale (2008), however, based on results from a younger population of men and women (under age 23), conclude that early parenting transitions are not associated with depression 5 years later. Certainly, early transition to parenthood diminishes educational opportunities and contributes to socioeconomic disadvantages (Helms-Erikson, 2001; Hofferth, Reid, & Mott, 2001), and these factors may add to the stress of parenthood. Notably, the studies cited above do take socioeconomic status into account in their analyses. Selection processes are also at work in that high levels of psychological distress may increase the risk of teen parenthood. Mollborn and Morningstar

(2009) analyze national longitudinal data and find that teens who became mothers exhibited higher levels of psychological distress than their child-free peers even before they became pregnant.

Beyond the transition to parenthood, parents of minor children exhibit higher levels of distress than other adults, including parents of adult children and the childless (Evenson & Simon, 2005). Risk for depression may be particularly high during the first years of parenthood. A recent study of almost 88,000 mother/father/child triads in Great Britain (children aged 12 and under) indicates that both mothers and fathers are at highest risk for depression in the first year following the transition to parenthood (Davé, Petersen, Sherr, & Nazareth, 2010). Moreover, parents aged 24 and younger were at greater risk for depression, as were parents who lived in economically strained areas. Biello, Sipsma, and Kershaw (2010) find evidence for gender differences in the link of teen parenthood and mental health. They report that the mental health of teenage fathers improves at a faster rate compared with nonparenting teenage males, while teenage mothers improve at a slower rate compared with nonparenting teenage females. Some scholars argue that growing socioeconomic divergence in the timing of parenthood may contribute to greater marital stability and parenting resources for the more educated over time (Casper & Bianchi, 2002; McLanahan & Percheski, 2008). This pattern may lead to a greater gap in resources for parenting that could translate into growing social disparities in psychological distress associated with parenting in the future.

One of the key take-home messages from research on parenting of minor children is that parenting is more stressful for some parents than others and parenting stress contributes to higher levels of psychological distress. Many studies lay out the strains of parenting young children—time constraints, reduced relationship quality for married and cohabiting parents, arranging for childcare, and increased financial responsibilities (Huston, 2004; Milkie, Mattingly, Nomaguchi, Bianchi, & Robinson, 2004; Roxburgh, 2005). The strain of parenting is greater for young parents (especially teens), the unmarried, the poor, and those who face multiple facets of social disadvantage or discrimination in terms of marital status, socioeconomic status, and race/ethnicity (Green, Ensminger, Robertson, & Juon, 2006; Jackson, 2000; Jackson, Brooks-Gunn, Huang, & Glassman, 2000). In fact, we obscure social realities if we attempt to fully separate the effects of these social statuses in that age, socioeconomic status, race, and marital status are woven together in ways that define the social and personal context of parenting. Just as marital status becomes more difficult to measure in contemporary society, particularly when one takes remarriage into account, parental status also takes on greater complexity. Although there have always been stepchildren and children in cohabiting unions in addition to biological children, the sheer numbers in these groups demand greater research attention. About one-quarter of all families with minor children include stepchildren (Stewart, 2005a), and some scholars estimate that two-fifths of all children will live in a cohabiting family at some point before adulthood (Bumpass & Lu, 2000). Methodologically, it is difficult to simultaneously distinguish step, biological, and adopted children, age and number of children, and living arrangements of children, particularly when a family includes several children who differ on all of these characteristics. Thus, most studies restrict their focus to one child in the family or to certain types of distinctions (e.g., stepchildren vs. biological children). As a result of such simplifications, research tends to remove elements of family status from the social context that actually shapes how those elements affect mental health.

Marital Status

The stress of parenting minor children is strongly influenced by marital status of the parent, with higher levels of distress among unmarried parents (Evenson & Simon, 2005). Compared to married parents, divorced and single parents experience higher levels of parenting stress and higher levels of psychological distress (Avison, Ali, & Walters, 2007; Bronte-Tinkew, Moore, Matthews, & Carrano, 2007; Greenfield & Marks, 2006; Nomaguchi & Milkie, 2003; Woo & Raley, 2005). Avison and colleagues conclude that single mothers of young children are more distressed than married mothers, primarily because single mothers face higher levels of financial, caregiver, work-home, and other types of stress. Bronte-Tinkew and colleagues find that separated or divorced fathers are more likely to be depressed than are married fathers, and Woo and Raley (2005) find that cohabiting fathers experience lower levels of depression than single fathers. Unmarried parents face greater time and financial constraints than do married parents and are more likely to experience social isolation (Avison et al., 2007; Greenfield & Marks, 2006). Arranging childcare for young children is more stressful for poor and unmarried parents (Huston, 2004).

Although unmarried mothers *and* fathers may experience parental role strain, the different nature of their experiences should not be understated. Mothers usually retain custody of children following divorce, while most fathers do not regularly visit their children (Amato & Dorius, 2010; Grall, 2009). The strains of parenting for divorced women are often related to economic hardship and social isolation (Avison et al., 2007), whereas the strains of parenting for men are more often related to difficulties with child support and visitation, interacting or avoiding interactions with the ex-wife, and personal and social identity concerns (Amato & Dorius). In essence, resources are limited and single and divorced parents experience many strains. These conditions increase the stress of parenting.

Many of those who remarry following divorce also experience the strains of stepparenting. The presence of stepchildren is associated with increased family strain, greater marital conflict and violence, lower marital quality, and twice the likelihood of divorce as couples with biological children only (Brownridge, 2004; Stewart, 2005b). Studies also suggest that stepparenting may be more stressful for stepmothers than stepfathers, perhaps because stepmothers are more likely to assume parenting responsibilities (Schmeeckle, 2007; Stewart, 2005b). While family and marital strain are clearly associated with higher levels of psychological distress (Proulx et al., 2007), research on stepparenting does not typically go beyond the focus on family stress to consider effects on mental health of parents (although many studies do consider effects on mental health of children in stepfamilies). One recent cross-sectional study reported that adults living with young stepchildren were not more distressed than their childless counterparts although having *adult* stepchildren was associated with higher levels of distress (Evenson & Simon, 2005). Given the prevalence of stepfamilies and the apparent strains therein, the effects of stepfamily arrangements and dynamics on the mental health of all family members warrant greater research attention.

Parenting in other relationship contexts has received quite a bit of recent attention in terms of documenting population patterns. Clearly, many cohabiting adults have children of their own or from a previous union, as two-fifths of all children spend some time in a cohabiting family by age 12 (Bumpass & Lu, 2000; Kennedy & Bumpass, 2008), and the family literature is beginning to recognize that many gay and lesbian adults, whether single or cohabiting with a partner, have children of their own or from a previous union (Biblarz & Savci, 2010; Lewin, 2009; Sullivan, 2004). However, mental health scholars rarely address how parenting in these arrangements affects the mental health of parents. Given the unique strains associated with cohabiting relationships (Phillips & Sweeney, 2005; Wethington & Dush, 2007; Williams et al., 2008;) and discrimination against same sex parents (Patterson, 2009; Shapiro, Peterson, & Stewart, 2009; van Dam, 2004), this is an important area for future study.

Gender

A decade ago, there was general consensus that parenting of young children was more stressful for women than for men (Arendell, 2000; Scher & Sharabany, 2005), and that this contributed to women's psychological distress. Women's higher distress levels were typically attributed to their greater responsibility and time pressures around rearing children (Bianchi, 2000; Blair-Loy, 2003). However, several factors were associated with reduced distress for mothers of young children: good employment outside the home (Marshall & Tracy, 2009), access to reliable and high-quality childcare (Huston, 2004), financial resources (Marshall & Tracy), and having a supportive spouse and other supportive persons in their social networks (Marshall & Tracy). The current view of gender and parenting is characterized by several themes: men's participation in childcare has increased over time (Bianchi, 2000; Sayer, 2005), women continue to shoulder most child-rearing responsibilities, the time constraints of childcare undermine psychological well-being more for mothers than fathers (Craig, 2006; Nomaguchi & Milkie, 2003; Nomaguchi, Milkie, & Bianchi, 2005), and divorced and single mothers are more likely than divorced and single fathers to reside with their young children (Amato & Dorius, 2010; Grall, 2009). The high levels of stress associated with childrearing are thematic concerns in contemporary policy debates about parental leave and childcare for working mothers and fathers (Hewlett, Rankin, & West, 2002). Given the adverse effects of stress on parents' psychological well-being and studies showing that high levels of parents' psychological distress adversely affect children's well-being (Murry, Brown, Brody, Cutrona, & Simons, 2001), efforts to reduce parenting stress have the potential to improve psychological well-being of children as well as parents.

In sum, individuals enter into parenthood with varying levels of support, resources, and strains—and all of these factors coalesce to shape the experience of parenthood and the effects of parenting on psychological well-being. These resources and strains vary by socioeconomic status, marital status, race/ethnicity, and gender. Thus, being a parent is a different experience depending on social location. Moreover, the meaning and salience of parenthood may vary across social location. Recent scholarship suggests that the parenting role may be more salient to groups who have comparatively less social power in other domains—for example, parenthood may be more salient (and relevant to well-being) for women, African-Americans, and the poor than for men, whites, and the more affluent (Edin & Kefalas, 2005; Milkie et al., 2008).

Adult Children

Overall, depression rates of nonparents are lower than all groups of parents, including parents with adult children (Bures, Koropeckyj-Cox, & Loree, 2009; Evenson & Simon, 2005). Furthermore, distress over the transition to "empty nest" appears to be a social myth. Evenson and Simon find no significant difference in the depression rates of adults living with minor biological and/or adopted children and those whose adult children have left home. Some longitudinal studies suggest that transition to "empty nest" is associated with a psychological boost for parents and greater marital happiness, especially for mothers (Bures et al., 2009 ; Dennerstein, Dudley & Guthrie, 2002; Umberson, Williams, Powers, Chen, & Campbell, 2005; VanLaningham, Johnson, & Amato, 2001). This may be due to reductions in work-family conflict and parental responsibilities along with more opportunities for leisure time between spouses (Martinengo, Jacob, & Hill, 2010; VanLaningham et al., 2001). These effects are dependent on marital status, gender, and age of the parent as well as geographic proximity of adult children to parents (Bures et al., 2009; Ha & Carr, 2005; Martinengo et al., 2010). Among men, widowed fathers exhibit the highest levels of depression, though among women, the highest rates are among never-married mothers and divorced and widowed women who have outlived their children (Bures et al.).

Among parents, the *quality* of relationship with children affects psychological well-being. Supportive relationships with adult children contribute to parental well-being (Koropeckyj-Cox, 2002; Lang & Schütze, 2002; Long & Martin, 2000) whereas strained relationships with even one adult child contribute to parents' psychological distress (Koropeckyj-Cox, 2002; Milkie et al., 2008; Ward, 2008). Relationship quality is important for both mothers and fathers (Koropeckyj-Cox), though there is evidence that it is more important for women than men and African-Americans than whites

(Milkie et al.). Divorce of parents has lasting effects on relationships with children, undermining parent–child relationship quality, particularly relationships with fathers (de Jong Gierveld, & Dykstra, 2002; Shapiro, 2003). Mothers may visit with their adult children even more often after divorce (Shapiro). The apparent adverse effects of parental divorce on parent–child relationships exist whether the divorce occurred when children were young or adults (Kalmijn, 2007). It appears that adult children may be particularly helpful to the well-being of widowed parents (Carr & Utz, 2001) and those who become mentally or physically impaired (Silverstein, Gans, & Yang, 2006).

While adult children are an important resource for aging parents, most adult children are not providing care to parents (Friedman & Seltzer, 2010). In fact, it is more common for adult children to rely on parents for support and services than it is for parents to rely on their adult children (Ward & Spitze, 2007). Support is more likely to be reciprocal and equitable when there is a history of affection in the parent–child relationship and a strong sense of family obligation (Parrott & Bengtson, 1999). Even when adult children and parents share a residence, it is typically out of the adult child's need rather than the parent's need, except among the oldest-old where parent's need becomes more important (Smits, Van Gaalen, & Mulder, 2010).

Young adults are quite likely to stay in the parents' nest: In 2007, about half of adults aged 18–24 (55% of men and 47.5% of women) lived with their parents (Kreider & Elliott, 2009). Compared to adult children who live independently from parents, in addition to age of the child, adult children are more likely to co-reside with parents when the child is unmarried, unemployed, has children, is less educated, or is experiencing financial stress (Keene & Batson, 2010; Pudrovska, 2009; Smits et al., 2010). Parents are more likely to move in with adult children when the parent is unpartnered and has health problems (Keene & Batson, 2010; Smits et al., 2010). Co-residence seems to undermine the psychological well-being of mothers more than fathers (Pudrovska), though some older studies indicate no greater psychological distress among parents who reside with adult children (Pillemer & Suitor, 1991; Suitor & Pillemer, 1987). Ward and Spitze (2007) find parent–child conflict to be even higher for adult children who move in with their parents multiple times.

Recent studies indicate that mothers' and fathers' psychological well-being is adversely affected when their adult children have behavioral, mental health, or developmental problems—regardless of children's living arrangements (Greenfield & Marks, 2006; Ha, Hong, Seltzer, & Greenberg, 2008). Knoester (2003) analyzes longitudinal data and finds that when young adults experience diminished psychological well-being, their parents' well-being also declines and vice versa. Even if only one of several adult children in a family experiences significant problems, parental well-being suffers (Ward & Spitze, 2004; Ward, 2008).

Childless Adults

Historically, voluntary childlessness was viewed as a sign of developmental immaturity and psychological deficiency (Gillespie, 2000; Letherby & Williams, 1999). The social pressures to have children have diminished significantly over the past few decades. While only 15.6% of women aged 30–34 and 10.5% aged 35–39 were childless in 1975, these figures rose to 28% and 20%, respectively, by 2000 (US Census Bureau, n.d.). And scholarly research provides clear evidence that there is not a significant psychological price to pay for childlessness. Parents of young children are more depressed than their childless counterparts (Evenson & Simon, 2005; Nomaguchi & Milkie, 2003). Parents of adult children do not differ from their childless peers when it comes to mental health (Evenson & Simon, 2005; Koropeckyj-Cox, Pienta, & Brown, 2007; Pudrovska, 2008). Given recent increases in longevity and childlessness, some scholars have focused primarily on *late life* effects of childlessness. Generally, these studies suggest that the mental health of women in later life is not much affected by childlessness. However, Zhang and Hayward (2001) find that childless men exhibit higher levels of depression and loneliness in later life, but only if they are also *unmarried* (also see Kendig, Dykstra, van Gaalen, & Melkas, 2007). Koropeckyj-Cox (2002) argues that the effects of parenthood and childlessness on well-being are likely to depend on personal expectations and the symbolic meanings of parenthood. This view is supported by studies showing that childlessness is associated with psychological distress for *young* adults who wish to have children but are unable to do so (McQuillan, Greil, White, & Jacob, 2003). These findings point to the importance of personal control and choice around parenthood as shaping the impact of parenthood and childlessness on psychological well-being (Koropeckyj-Cox).

Cumulative Effects of Parenthood on Well-Being

A burgeoning literature on cumulative effects of social experiences on mental and physical health over the life course (see Dannefer, 2003) provides a theoretical framework for better understanding how parenthood effects reverberate and build to influence psychological well-being throughout life. This framework takes into account that resources and strains associated with parenthood vary across social groups in ways that may add to cumulative disadvantage in mental health over time. For example, parenthood during one's teen years and as a single parent may be associated with disadvantage in terms of socioeconomic and educational opportunities. This disadvantage adds to the stress of parenthood and increased risk for psychological distress. This disadvantage launches a trajectory of disadvantage that is sustained and accumulates over the life course. Several recent studies suggest that early challenges of parenting (e.g., having children with early behavioral or developmental problems) undermine parents' well-being throughout the life course (Ha et al., 2008). Moreover, later problems with adult children (e.g., mental health problems, unemployment) add to disadvantage in parents' trajectories of well-being as they age (Greenfield & Marks, 2006). This framework of cumulative life course processes has much to offer future research in terms of understanding how parenthood influences mental health and to shed light on social disparities in parenting stress that contribute to disparities in mental and physical health (Umberson et al., 2010).

Where Do Researchers on Family and Mental Health Go from Here?

Increasingly, researchers differentiate within and between marital statuses by characteristics that are closely associated with marital statuses—for example, degree of financial strain and social support experienced by individuals (all factors that vary by marital status). Controlling on such variables may reduce or eliminate any apparent marital status differences. However, controlling for the key variables that distinguish various marital statuses may serve to mask any actual effects of that marital status on mental health (Lieberson, 1985). We must ask what it means to be married, divorced, or remarried. Each of these statuses is characterized by a different constellation of factors that uniquely distinguish the experience of being in that status. We may be able to statistically control away the factors that explain why the divorced are more distressed than the married, such as financial strain, but we cannot conclude that divorce does not affect mental health once financial strain is taken into account, because financial strain is one of the factors that characterizes divorce. Empirical research must continue to identify the mechanisms through which each marital status contributes to mental health in order to understand group differences in distress. However, we must also remember that social institutions affect individuals in their entirety, as whole persons.

Group differences (e.g., by gender, race, age, or socioeconomic status) in the effects of family status on mental health require that we include sociodemographic variables in analyses not merely as control variables but as variables that may potentially intersect with family status in their impact on mental health. The importance of this line of research is suggested by the few existing studies suggesting group differences in the meaning and consequences of family status on mental health. Moreover, we must consider how family processes may operate differently across social groups even if effects on outcomes are similar. For example, a recent study by Lincoln, Chatters, and Taylor concludes, "the processes underlying psychological distress are sufficiently different for African Americans and whites and that the assumption of 'race/ethnic' similarity is unjustified" (2003, p. 403).

Recent theoretical work on "intersectionality" provides a framework for considering how multiple stratification systems work together to influence life experiences and outcomes (Collins, 1990; Crenshaw, 1989; McCall, 2005). This framework has been used most often to consider how the intersection of race and gender shape life experiences. A basic premise of this approach is that the experience of being male or female differs across race/ethnic groups and the experience of being in a particular race/ethnic group differs for men and women. Given the considerable evidence of gender differences in family experiences and mental health and growing evidence of variability in family experiences across systems of stratification (e.g., race, class), an intersectionality framework for the study of family status and mental health offers new ways to think about studying and understanding these linkages. This theoretical frame also calls for multiple layers of analysis involving both qualitative and quantitative methods (Choo & Ferree, 2010; McCall, 2005; Shields, 2008).

The focus on intersectionality should also direct more research attention to gay and lesbian unions. Although legal marriage has not traditionally been an option for gay and lesbian couples, recent qualitative work suggests that most long-term gay and lesbian couples would choose to marry if this were an option (Reczek, Elliott, & Umberson, 2009). While gay and lesbian couples may face unique stressors associated with discrimination, one would expect that the resources offered by committed relationships would be similar to those in committed heterosexual relationships (King & Bartlett, 2006). National surveys should elaborate on their definition of long-term unions to allow researchers to examine the mental health consequences of legal marriage and cohabitation for gay and lesbian individuals. At least one recent study, based on a random sample of sexually active adults, found that partnered gay and lesbians reported less happiness than married spouses but more happiness than single gay, lesbian, or straight individuals (Wienke & Hill, 2009).

What Can We Conclude About Family Status and Mental Health?

We began this chapter with three "social facts" about family status and mental health. Social constructionists tell us that "truth" does not exist, that our sociological facts result from social processes reflecting the nature of the scientific enterprise and those who run it. In fact, a true constructionist would not be very interested in the empirical evidence mustered in support of those facts because the empirical evidence is simply a by-product of the scientific enterprise. We do not adopt this radical position, but we do see the constructionist perspective as having the potential to help us conduct better science.

In a general and superficial sense, the empirical evidence does support the three "social facts" presented at the beginning of this chapter. However, the empirical evidence also suggests that these three "facts" must be qualified. For example, although we can conclude that marital status is associated with mental health, the degree of benefit conferred by marriage is greatly dependent on the group (e.g., divorced, widowed, never-married, remarried) against which the married are compared as well as the duration of time spent in the status or the time since transition into that status. Most past research emphasizes the advantageous state of marriage when explaining marital status differences in mental and physical well-being. More recent research suggests that the presumed benefits of marriage for mental health actually reflect their contrast to the poor mental health status of the previously married. Overall, the evidence suggests that it might be more appropriate to emphasize the disadvantageous state of divorce and widowhood or the stressful transitional period from married to unmarried status rather than the advantageous state of marriage. This is a very different construction in that the traditional approach emphasizes the value of marriage, whereas the approach offered in more recent work emphasizes the stress of relationship dissolution. One could even view marriage as a risk factor for depression in the sense that one must be married in order to experience marital dissolution. In fact, studies focusing on mental health among the married emphasize that it is not marriage per se that contributes to psychological well-being; rather, the quality of marriage is associated with psychological well-being. Individuals in marriages characterized by stress, conflict, and unhappiness exhibit poorer mental health than do their unmarried counterparts (Williams, 2003).

The second "social fact"—that marriage benefits men's mental health more than women's—must also be qualified. Almost all of the empirical research on marital status differences in mental health relies on measures of depression and psychological distress symptoms to the exclusion of other mental health outcomes (Mirowsky & Ross, 2003). However, mental health research suggests that, in response to stress, women are more likely than men to experience increased psychological distress while men are more likely to increase alcohol consumption (Rosenfield et al., 2005; Simon, 2002). When research focuses on multiple indicators of mental health, conclusions about gender and marital status differences diverge from those presented in our three "social facts." This emphasis on different styles of expressing emotional distress represents an important opportunity to gain new insights into the social processes around family status that produce emotional distress. For example, Bierman and colleagues (2006) suggest that future studies assess how resources responsible for explaining any mental health advantage experienced by the married differ depending on the outcome examined. The focus on depression and alcohol use/abuse as internalizing and externalizing styles of expressing distress is an important but rudimentary beginning. Additional qualitative and quantitative research is needed to explore possible group differences in expressions of distress. It may be more useful to view *feelings* of distress (e.g., anger, depression, sadness) as distinct from *behaviors* indicative of distress (e.g., violent behavior, substance abuse) when exploring these group differences (Mirowsky & Ross).

Less research focuses on the effects of parental status on mental health, but the findings are fairly consistent. Having minor children appears to be detrimental to mental health, and the adverse consequences are greater for unmarried than for married parents, but evidence concerning gender is more mixed. Again, however, these general effects vary in degree and direction depending on sociodemographic characteristics of individuals as well as social contextual factors.

In summary, our conclusions about family status and mental health are constantly being revised and are highly dependent on conceptualization of family status, measurement, method, and theoretical approach. The revision of such "facts" may arise because the costs and benefits of families are actually changing *or* because we modify the particular research questions we ask, as well as the way we measure variables and interpret research findings.

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Chapter 21
The Sociology of Work and Well-Being

Mark Tausig

Abbreviations

BLS	Bureau of Labor Statistics
HWPO	High performance work organization
SES	Socioeconomic status
US	United States

Work is a central activity and a principal source of identity for most adults. It is also frequently described as a source of stress, anxiety, and hardship. As such, the relationship between work and mental and emotional well-being is of substantial interest. The effects of work on well-being, however, cannot be effectively understood simply by examining individual experiences in particular jobs. Rather, from a social structural perspective, work-related well-being is substantially influenced by macroeconomic (the way the economy is structured and changes) and labor market (the way jobs and employees are matched) structures that define opportunities for employment in particular kinds of jobs, workers' positions in social stratification systems that affect labor market positions, and the intersection of work roles and other major roles, especially marital and parental roles. Indeed, the sociological study of work and mental health emphasizes that social and economic structures routinely and normatively affect exposure to work-related stressors and the consequences of that exposure (Fenwick & Tausig, 2007; Tausig & Fenwick, 2011).

Four research foci have addressed the ways in which work and psychological well-being are related, and collectively, they can be linked to provide a social structural explanation for work-related well-being. Most research on work and mental health examines the relationship between job conditions and individual strain or distress. These studies examine how features of jobs – such as the level of job demands, decision latitude, autonomy, substantive complexity, coworker support, and job insecurity – are related to individual levels of strain or distress (Häusser, Mojzisch, Niesle, & Schulz-Hardt, 2010; van der Doef & Maes, 1999). The studies generally do not connect job conditions to larger economic and social conditions, but treat job conditions as stressors and/or sources of work-related support. The job demand/control (support) model (Johnson & Hall, 1988; Karasek, 1979) and the

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M. Tausig (✉)
Department of Sociology, The University of Akron, Akron, OH 44325-2101, USA
e-mail: mtausig@uakron.edu

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job demands-resources model (Bakker & Demerouti, 2007) that are frequently used to account for individual levels of work stress provide theoretically useful ways for sociologists to understand job-related stress because they can be interpreted as stress-support-distress models.

Second, some studies examine the effects of macroeconomic structures and change on aggregate or individual mental health. These studies generally assess the relationship between aggregate macroeconomic conditions, such as unemployment rates, and aggregate rates of disorder (Brenner, 1973, 1976, 1984, 1995; Brenner & Mooney, 1983), but occasionally link aggregate economic conditions such as changes in unemployment rates (e.g., economic recessions) to individual psychological outcomes (Catalano & Dooley, 1983; Fenwick & Tausig, 1994; Tausig & Fenwick, 1999; Turner, 1995).

In the last three decades, the nature of work has changed substantially as has the relationship between employers and employees. Recent discussions of the restructuring of the employment relationship include consideration of how downsizing, nonstandard work arrangements, labor market segmentation, "new forms of work," and the proliferation of low-wage jobs – all macroeconomic changes – affect job conditions and well-being. Many of these work-related changes appear to be independent of economic cycles and to represent historic changes in the way in which workers are exposed to and cope with work-related stressors.

A third focus of research is reflected in studies that attempt to explain the relationship between positions in social structures of inequality, work, and well-being. This literature is based on the sociological study of labor markets that is principally used to explain economic outcomes but can be extended to account for psychological outcomes (Fenwick & Tausig, 2007). Social status differences (including gender, race, SES, and citizenship status) affect participation in the labor market and consequent worker exposure to stressful job conditions. The "social status as a fundamental cause of disease" perspective (Link & Phelan, 1995) can be usefully applied to understand the relationship between social status, work, and mental health. Moreover, differences in work-related stress based on social status can be understood as providing a partial explanation for status-based health disparities.

A fourth focus of research examines the intersection of work with the family. This literature has developed, in part, because of increased female participation in the labor force and, in part, because of the more general recognition that the impact of work on mental health cannot be properly understood without accounting for other social contexts (Fenwick & Tausig, 2001, 2004; Schieman, Milkie, & Glavin, 2009; Tausig & Fenwick, 2001).

In this chapter, I summarize what each of these four research areas tell us about the relationship between work and mental health. Each approach reflects subdisciplinary interests, but collectively, they present a broad sociological perspective on the relationship between work and psychological well-being.

The Social Structural Explanation of Job Stress

The juxtaposition of these four research foci yields a social structural explanation of job stress that views stress as a fundamental product of the economic system, labor markets, social structures of inequality, and intersection of social institutions. Macroeconomic structures and change, labor markets, structures of social inequality, and family provide a context for understanding how immediate job conditions affect psychological well-being (see Fig. 21.1).

This conception, for example, allows us to directly link the broad changes in the nature of work and the relationship between workers and employers that are due to macroeconomic change to increased levels of anxiety (insecurity) as well as economic hardship – forms of psychological well-being/distress (Appelbaum, Bernhardt, & Murnane, 2003; Kalleberg, 2009).

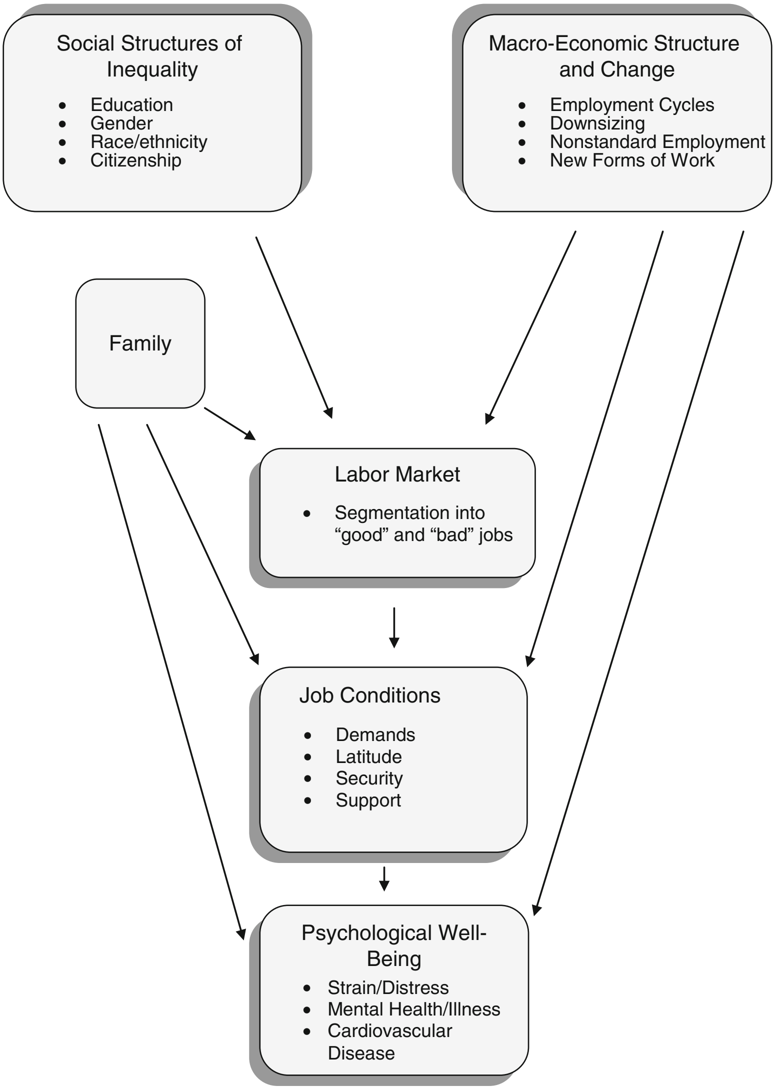

Fig. 21.1 A social structural explanation for job stress

Macroeconomic structures and change also affect well-being in at least two other ways. First, macroeconomic conditions influence the types of jobs (good jobs, bad jobs) that are available in the labor market (Kalleberg, Reskin, & Hudson, 2000), and second, the restructuring of jobs that can be attributed to macroeconomic changes directly affects the nature of job conditions (Cappelli et al., 1997) that are related to job stress.

Social structures of inequality function primarily by defining locations in labor market segments that, in turn, affect experienced job conditions. The US labor market is segmented into standard and nonstandard jobs (with corresponding good and bad job conditions), and women, racial and ethnic minorities, those with low educational attainment, and noncitizens are more likely to compete for nonstandard (bad) jobs (Hudson, 2007; Kalleberg et al., 2000). Hence, positions in status systems of inequality affect exposure to stressful job conditions and subsequent mental health outcomes.

Finally, the family is a particularly salient social institution that intersects work life. In this instance, family obligations affect labor market participation and hence experienced job conditions. Further, work organizations sometimes establish "family-friendly" job conditions that are intended to affect levels of job-related distress. The impact of family life on work-related well-being can also be assessed as a conflicting set of role obligations that cause work-life imbalance or role overload. Of course, family directly affects well-being through nonwork mechanisms as well, but these are not discussed here.

Job Conditions and Distress

What we actually do on our jobs and how we are able to do it have strong effects on well-being. The bulk of research concerning the relationship between work and mental health is focused on specific job conditions and how they affect individuals. In particular, the relationship between the demands of work and the ability to meet those demands is of crucial importance both to well-being and to the development of identity and intellectual flexibility (Karasek, 1979; Karasek & Theorell, 1990; Kohn & Schooler, 1983).

Robert Karasek and his colleagues (Karasek, 1979; Karasek & Theorell, 1990) have outlined a "demand/control" model for explaining worker's well-being that has received widespread empirical support (Häusser et al., 2010; van der Doef & Maes, 1999). In this schema, the way that a worker can balance work demands with decision latitude (autonomy) in the way work is done is strongly related to worker mental health. The worker who experiences a high level of demands on the job but has little flexibility in the way he/she can meet these demands is at higher risk of developing signs and symptoms of psychological distress. In this model, stress comes from the structured inability of the worker to manage (cope with) high levels of demand. Karasek argued that job demands interact with decision latitude to create job strain but there is also strong evidence that job demands and lack of decision latitude can be regarded as independent stressors (van der Doef & Maes). There is a substantial literature that debates the precise way in which job demands and decision latitude might interact and how that relationship should be modeled, but it is clearer to discuss the research by treating each construct separately. The value of the demand-control model is its emphasis on how job *structures* affect worker's well-being.

Job demands are usually indexed by asking workers if they must work very fast on their job, if they have too much work, or if they have enough time to get everything done. Job demands can also be used to indicate if the work is paced by machine and whether it is boring and repetitive. The effects of machine pacing have been of concern for some time. In the stereotypical image of assembly line manufacturing, a worker's rate of activity is determined by the speed of the assembly line, and the image of the worker falling behind the pace of the machine is a symbol of the stress of manufacturing jobs. Machine pacing has been associated with higher levels of boredom, anxiety, and depression (Caplan, Cobb, French, Van Harrison, & Pinneau, 1975; Hurrell, 1985). In addition, Link, Dohrenwend, and Skodol (1986) have shown that "noisome" physical occupational conditions are linked to psychological disorder.

Decision latitude appears to be the most crucial variable related to work satisfaction and also distress. It is central to the notion of personal control and autonomy. In its simplest version, decision latitude assesses whether the worker has the ability to complete assigned tasks in a way that permits individual preferences to be respected. That is, to what extent can an individual participate in the design and execution of his/her work? Decision latitude is typically measured by questions about a worker's belief that he/she has the freedom to decide what to do on the job, has a lot of say about what happens on the job, feels that he/she has responsibility to decide how the job gets done, and that the job requires some creativity. Low decision latitude also contains the notion of "closeness of supervision." Findings suggest that persons who are closely and constantly monitored by their supervisors, who perceive that they are unable to make decisions about their work on their own, and who have no opportunity to disagree with their supervisors will display increased levels of anxiety, low self-confidence, and low job satisfaction (Kohn & Schooler, 1983).

Link, Lennon, and Dohrenwend (1993) have shown that the ability to control the work-related activities of others is also important for well-being. This ability is a job characteristic defined by the Dictionary of Occupational Titles as “direction, control, and planning.” The construct is clearly related to decision latitude, but applies as a description of the job only insofar as the employee has control over other employees.

The “substantive complexity” of jobs is another feature of work that affects psychological well-being. Jobs that require more thinking to complete or which are more complicated to complete are associated with lower rates of anxiety, higher self-esteem, and higher life satisfaction (Caplan et al., 1975; Kohn & Schooler, 1983; Kornhauser, 1965; LaRocco, House, & French, 1980).

Work is also a social setting. Generally, we talk with our coworkers and our supervisors during the day. Often people develop important friendships among coworkers that are carried on after working hours. The opportunity to interact with one’s coworkers fills a general human need for socializing. As well, interactions with coworkers and supervisors offer the possibility of receiving support in times of strain or distress. Jobs that permit workers to interact and to form relationships (e.g., those in which one does not work alone or where the surrounding noise is not too great) also permit workers to obtain support and advice regarding work-related (and, maybe, family-related) problems. Having someone who is trusted to consult about problems is essential to well-being. Thus, opportunities to make friends and to obtain social support from coworkers and supervisors on the job can have a positive effect on well-being (Billings & Moos, 1982; Etzion, 1984; Karasek, Triantis & Chaudhry, 1982; LaRocco et al., 1980; Winnubst, Marcelissen, & Kleber, 1982). Karasek’s (1979) job demands/control model was extended by Johnson and Hall (1988) to include coworker social support as an additional element of the model, and it has been found to interact with demands and control to predict well-being as well as coronary heart disease (de Lange, Taris, Kompier, Houtman, & Bongers, 2003). This latter model is directly compatible with stressor-support-distress models of psychological well-being, although there has been little discussion of the exact ways that these work-related constructs are related to one another (see Lin (1986) for a description of alternate general models of stress, support, and distress relationships).

Although the vast majority of studies relating job conditions to well-being utilize the demand/control (support) argument, an alternative (but not contradictory) argument has recently been advanced, the demand/resource model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). In this formulation, job demands and resources are conceived more broadly than in the Karasek (1979) demand/control argument. Demands include work pressures, the physical environment, and emotional labor requirements. Resources include pay, promotion opportunities, job security, supervisor and coworker social support, access to information, participation in decision making, skill variety, autonomy, and performance feedback. This model is intended to broaden the range of job conditions that can be related to job stress. The effects of demands and resources can be additive and/or interactive in this model, making it consistent with stress-mediating and stress-buffering models in the stress-illness literature.

Changes in the nature of work and labor markets that will be discussed later in this chapter have increased the salience of job insecurity as it is related to job stress (Kalleberg, 2009). Job insecurity is a job characteristic too, but it differs somewhat from dimensions such as job demands and rewards or decision latitude because it refers to the perceived stability of a job and not to inherent job properties. Job insecurity is defined as “…perceived powerlessness to maintain desired continuity in a threatened job situation” (Greenhalgh & Rosenblatt, 1984). Workers’ beliefs that their jobs will still exist in a year and that they can expect to keep the job if they choose are important to a sense of well-being. Even when economic times are generally good, employees worry about the stability of their employment. When times are bad, fear of unemployment can have severe psychological effects on individuals (Heaney, Israel, & House, 1994; Joelson & Wahlquist, 1987). Job insecurity has become a major feature of the work setting because of the large-scale restructuring of work and its context.

There is strong evidence that employees who regard their current employment as unstable (i.e., insecure) are more likely to experience physical health problems and psychological distress (Burgard, Brand, & House, 2009; de Witte, 1999; Ferrie, Shipley, Stansfeld, & Marmot, 2002; McDonough, 2000; Sverke, Hellgren, & Näswall, 2002). Among other explanations is the hypothesis that during periods of decreased demand for labor (i.e., recessions), workers will feel more vulnerable to layoffs even when they remain employed and, thus, levels of perceived job insecurity (as well as distress) will rise (Catalano, Rook, & Dooley, 1986). The significance of this explanation is that workers need not directly experience unemployment to experience distress (Brenner & Mooney, 1983; Fenwick & Tausig, 1994; Tausig & Fenwick, 1999). Empirically, changes in levels of job insecurity associated with general increases in unemployment have not been shown to be directly related to distress (Tausig & Fenwick). However, there is now evidence that overall job security has declined for other, more systematic reasons and that this decline is associated with elevated distress (Fullerton & Wallace, 2007; Burgard et al., 2009).

Job insecurity is a salient characteristic of "new forms of work" that give workers more autonomy but also make continued employment contingent on their successful contributions to organizational productivity (Cappelli et al., 1997; Fullerton & Wallace, 2007). As well, job insecurity is inherent when organizations attempt to maintain workforce flexibility in a competitive context by using temporary workers or by downsizing.

The globalization of the economy, deregulation of US businesses, technological changes, and worldwide surplus of labor has created a general and enduring "precarity" of employment (Kalleberg, 2009). The growth of precarious work has decreased employees' attachment to their employers, increased long-term unemployment, and increased perceived job insecurity (Kalleberg). Precarious work leads to insecure workers and to greater distress (Benach, Benavides, Platt, Diez-Roux, & Muntaner, 2000; Burgard et al., 2009; Kivimäki et al., 2003; Quinlan, Mayhew, & Bohle, 2001). This is to say that job insecurity has become a ubiquitous and highly relevant condition of work. Cappelli et al. (1997) suggest that new forms of work have removed the "insulation" from jobs that used to shield workers from the vagaries of the labor market (e.g., through the existence of internal labor markets and a social contract defining employer-employee obligations). The direct exposure to the precarious labor market that results from new forms of work makes job insecurity a significant condition of the job and not solely an individual perception.

Understanding the relationship between job conditions and well-being is useful, but it cannot explain where those job conditions come from. In fact, worker exposure to job stressors and distress is the result of systematic social and economic structures and associated processes.

Macroeconomic Structures, Change, and Distress

The plight of workers in the context of industrial economies has been of concern and interest at least since Engels analyzed the condition of the working class in England in 1844 (Engels, 1958 [1844]). Marxist studies of labor under capitalism show a relationship between this mode of economic production and both societal and individual alienation, and they suggest a direct link between economic organization and well-being (Marx, 1964 [1843–1844]; Mészáros, 1970).

Research by Brenner (1973, 1976, 1984, 1987), Marshall and Funch (1979), and especially Catalano, Dooley, and their associates (Catalano et al., 1986; Catalano & Dooley, 1977, 1979; Catalano, Dooley, & Jackson, 1985; Dooley & Catalano, 1984; Dooley, Catalano, & Rook, 1988) shows that a direct relationship does indeed exist between aggregate indicators of the state of the economy (generally unemployment rates) and aggregate indicators of stress-related poor health (rate of psychiatric hospital admissions, cardiovascular illness, mortality). Changes in unemployment rates (mainly, increases) increase risk of exposure to negative work and financial-related events and reduce social tolerance for deviant behavior. Greater exposure to stressors and reduced tolerance, in turn, lead to higher aggregate rates of morbidity or mortality (Catalano, 1989).

Brenner (1987) suggests that when macroeconomic conditions force a firm to reduce its labor force, remaining employees will experience fear of employment loss and destruction of careers, as well as increased work stress. Starrin, Lunberg, Angelow, and Wall (1989) suggest that fear of unemployment causes employed workers to work harder and that, at least in certain industries, as unemployment rates increase, owners of capital will find it efficient to extract more labor by requiring overtime work from a smaller number of workers instead of obtaining cheaper labor from the growing pool of the unemployed. As job demands and job insecurity are increased, these authors suggest, worker distress increases. Kivimäki, Vahtera, Pentti, Thomson, Griffiths, and Cox (2001) have shown that downsizing results in the restructuring of remaining jobs in such a way that job insecurity is increased, job demands are increased, and decision latitude is reduced. Further, these changes are linked to decreases in perceived health. Although these latter arguments make a case for the existence of direct effects of macroeconomic structure and change on job conditions related to distress, the study of unemployment most clearly illustrates the direct effects of macroeconomic conditions on mental health.

Unemployment

Unemployment is a stressor that clearly leads to greater physical and mental distress (Dooley, Catalano, & Wilson, 1994; Horwitz, 1984; Jahoda, 1988; Liem & Rayman, 1984; Pearlin & Schooler, 1978). Given that we often define ourselves by our job titles, the loss of a job can mean that our identity, based on our employment, is threatened. Unemployment, of course, also has significant financial effects. Most of the research on the effects of unemployment on worker's well-being focuses on these two matters: threats to identity and financial strain. The typical study of the health effects of unemployment shows that unemployment is related to increases in drinking, more physical illness, higher rates of depression, anxiety, "bad days," suicidal ideation, and increased use of tranquilizers (Kessler, House, & Turner, 1987). This research also shows that becoming reemployed largely wipes out the effects of not being employed (Kessler, Turner, & House, 1989).

If the health effects of unemployment are not much debated, then the question turns to the causes of unemployment. It is here that we can see some of the ways in which social and economic structures affect worker's well-being by affecting opportunities for work. The main reason for unemployment is "structural" and involuntary. That is, the economy goes through cycles of growth and decline, and, during decline, jobs are lost simply because employers cannot afford the labor force costs they incurred when times were better or because they close economically marginal plants or relocate production to lower-wage areas. During recessions, the number of unemployed people swells, and prospects for quick reemployment are poor. By definition, involuntary unemployment means that workers do not have control over the basic condition of their access to financial and identity security. There is also evidence that even among workers who do not lose their jobs during recessions, elevated levels of insecurity brought on by concern over the economy increase symptoms of depression and other forms of psychological distress (Heaney et al., 1994; Kuhnert & Vance, 1992).

A number of authors, however, have noted that personal reactions to unemployment can be affected by the aggregate economic context as well. Although Dooley et al. (1988) did not find such a relationship, Perrucci, Perrucci, Targ, and Targ (1988) and Turner (1995) have shown that community-level reactions to plant closures and/or local unemployment rates interact with personal unemployment experiences to affect psychological reactions. For example, Turner found that it is better to lose a job – in terms of less physical and psychological distress associated with unemployment – when the chances for reemployment in the local community are good. Dooley et al. (1994) found that community-level unemployment rates had an indirect effect on individual depression by raising the risk of unemployment.

Studies of the consequences of reemployment show that the distress attributed to unemployment largely disappears (Kessler et al., 1989; Kessler, Turner, & House, 1988; Liem & Liem, 1988; Payne & Jones, 1987; Turner, 1995; Warr & Jackson, 1985). This effect can be attributed to personal job-seeking efforts and the consequent feelings of efficacy as well as improved finances. In some instances, however, reemployment may not improve well-being. Perrucci et al. (1988) report that the well-being of those reemployed following a plant closing was no better than for those who remained unemployed largely because those who became reemployed did so in jobs that offered substantially lower wages and less job security than their previous employment. In this instance, reemployment addressed neither financial nor identity issues.

This latter point has increased relevance as the restructuring of the economy and jobs that has been occurring over the last three decades has created more involuntary part-time employment and increased low-wage jobs (Bernhardt, Morris, Handcock, & Scott, 2001). Dooley, Prause, and Ham-Rowbottom (2000), for example, have shown that underemployment such as occurs with involuntary part-time employment is associated with as much increased depression as unemployment. Virtanen, Liukkonen, Vahtera, Kivimäki, and Koskenvuo (2003) found that contingent workers with uncertain employment contracts experienced higher rates of both physical and mental illness, although these rates were not as high as those among low-income unemployed workers. Both studies of the effects of unemployment and reemployment suggest the importance of accounting for the macroeconomic context in understanding effects on distress. This concern now leads us to examine some recent changes in the basic relationship between workers and employers and the effects these changes may have on employee well-being.

The Changing Nature of Work

There is broad agreement that work organizations and work have undergone considerable restructuring in the past 30 years. The changes have been both radical and widespread (Osterman, 1994, 2000; Vallas, 1999). The impetus for these changes is variously tied to global economic competition, changes in employment law and regulatory and trade policies, the shift away from manufacturing (in the US), technological change (i.e., computerization), and fundamental shifts in the nature of capitalism (Cappelli et al., 1997; Smith, 1997; Vallas, 1999).

The image evoked earlier of the hapless worker whose tasks were tied to the assembly line (high demand, low control equaled job stress) no longer describes the typical full-time, core worker or his/her job in advanced economies. “New forms of work” that are characterized by the recognition of worker knowledge and judgment, the use of teams, and minimal supervision have replaced the “Fordist” model of hierarchy, formalization and supervision (Cappelli et al., 1997; Smith, 1997). And, in principal, this form of work increases work control and decreases job demands (Macky & Boxall, 2008). Work in the “high performance work organization” (HPWO) is one way in which the organization attempts to increase its “functional flexibility” (Smith) relative to work tasks and productivity demands (Kalleberg, 2003). New forms of work describe “core” workers in organizations who work “standard” full-time, Monday to Friday jobs. The very limited empirical examinations of how new forms of work affect worker’s well-being seem to suggest that the effects on job stress vary by industry (Berg & Kalleberg, 2002; Parker, 2003). But these studies also suggest that high performance work practices have either no effect or increase job stress rather than decrease job stress as might be expected from the increase in decision latitude and more interesting work. Cappelli et al., for example, have suggested that new forms of work and work organization contain contradictions that can potentially create job stress. New forms of work often demand substantially more from the worker. Different skills such as those related to interpersonal relationships (team play) and logistics may be called for. Workers may find that the level of job demands has increased dramatically. Workers may also discover that the greater autonomy promised by the reorganization of work is illusory or offset by normative processes within work groups (Barker, 1993). Smith reports that research studies do not generally find that true decentralization of authority occurs in redesigned work. In this case, meaningful decision latitude may not increase. Indeed, Parker found that lean production systems increased job depression due to perceived decreases in job autonomy, skill utilization, and participation in decision making. Landsbergis, Cahill, and Schnall (1999) reviewed studies of the impact of lean production systems in the auto industry and concluded that lean production intensified job demands and that decision latitude did not increase.

The Changing Labor Market

Employers have effectively restructured their workforce into a standard, permanent "core" set of workers (increasingly organized under high performance work practices discussed above) and nonpermanent, nonstandard "peripheral" workers. This organization of work and workers creates the "numerically flexible" firm (Smith, 1997) that is intended to give employers the ability to compete in global markets and to maintain profits by quickly increasing or decreasing its workforce as conditions dictate (Kalleberg, 2003). Kalleberg et al. (2000) and Hudson (2007) have shown that the US labor market is now segmented into a core segment characterized by "standard," full-time work with good pay and benefits, "good jobs," and a peripheral segment characterized by nonstandard, part-time, and contingent labor with low pay and few or no benefits, "bad jobs."

Sizable numbers of those employed in the US now work in jobs that are intentionally structured to last a limited period of time or to provide limited hours of work (i.e., temporary, contingent, or part-time). In 2005, the Bureau of Labor Statistics (BLS) estimated that up to four point 1% of the current labor force was working in jobs that meet various definitions of contingent employment (BLS, 2005). Adding those who are self-employed and those who are employed part-time brings the total closer to one in three workers (Parker, 1993). For large numbers of workers, employment is not permanent, income is not predictable, and traditional employee benefits such as retirement and health insurance are highly uncertain (Kalleberg et al., 2000). Moreover, the prospect of "downsizing" hangs over many permanently employed workers who no longer regard any job as permanent even as their own employment continues. In short, many persons in the labor force are likely to feel insecure about their jobs, and many will feel that they have little control over the conditions of their employment.

Further, it is important to note that these changes in the distribution of permanent and nonpermanent jobs are occurring independently of economic cycles. While jobs are lost during recessions as organizations cope with the poor economic climate, downsizing and the expansion of temporary and contingent jobs is an intentional (and permanent?) feature of work in the US and other advanced economies (Kalleberg, 2009). Moreover, high-paying and mid-level jobs are increasingly being replaced by low-wage jobs that contain both economic and psychological stressors (Appelbaum et al., 2003; Bernhardt et al., 2001; Luo, 2010).

Contingent workers (other than independent contractors and the self-employed) share a number of characteristics. Their wages are typically lower than permanent workers; they receive few, if any, fringe benefits; they have few opportunities for career advancement; and they have no chance to exert control over the conditions of their work. These are characteristics which may increase job-related stress among contingent workers. Kivimäki et al. (2003) found that temporary employment is associated with higher mortality than permanent employment. Virtanen et al. (2005) reviewed 27 studies of the health effects of temporary employment and concluded that there is an association between temporary employment and increased psychological morbidity. Parker, Griffin, Sprigg, and Wall (2002), however, reported that while temporary status and lower participation in decision making that accompanies temporary job status increases strain, this effect is offset by lower levels of job demands so that the net effect of temporary employment was to reduce job strain.

Not all nonstandard employment is identical in form or in its implications for personal sense of control. For example, part-time work represents the largest category of nonstandard work, but much of it is voluntary on the part of workers. Negrey (1993) concluded that voluntary part-time employment may enhance worker sense of control by permitting scheduling and participation in other social activities. Tilly (1991), on the other hand, found that most of the increase in part-time employment since 1970 is among "involuntary" part-timers, workers who prefer full-time employment but cannot find it. Dooley et al. (2000) found that among involuntary part-time workers, depression levels were as high as among unemployed workers. Further, the Bureau of Labor Statistics (BLS, 2005) reported that 54% of contingent workers would prefer to have a permanent job.

Fenwick and Tausig (2001, 2004) concluded that schedule control was a key determinant of health outcomes among nonstandard workers net of other job characteristics. Kalleberg (2003) concluded that the degree to which a worker in a nonstandard employment context can exercise control over his/her skills determines the benefit derived from nonstandard employment. Virtanen et al. (2003, 2005), and Saloniemi, Virtanen, and Vahtera (2004) found that fixed term employment was not associated with elevated distress but, rather, only non-fixed term contingent work (where the worker had no control over length of employment) was related to distress.

There is also a small set of studies that examine the effects of contingent workers on permanent workers in the same firm. These studies suggest that the presence of certain types of contingent workers may increase insecurity among permanent workers and decrease job satisfaction, loyalty, and attachment to the firm (Chen & Brudney, 2009; Davis-Blake, Broschak, & George, 2003; de Cuyper, Sora, de Witte, Caballer, & Peiró, 2009; George, 2003). These studies, however, do not explicitly examine stress or mental-health-related outcomes.

In summary, the macroeconomy and changes in the macroeconomy can directly affect mental health through changes in unemployment levels, both personal and aggregate. Long-term changes in the context (precarious employment) and the nature of work (high performance work practices) and its organization (standard, core jobs vs. nonstandard, contingent jobs) that are due to macroeconomic factors also affect mental health indirectly through changes in the structure of the labor market and the stressful qualities of restructured jobs.

Social Stratification and Job Stress

If the labor market is now segmented into good jobs and bad jobs based on standard versus nonstandard employment, workers have different "risks" of being found in each segment, in part, based on social status (Hudson, 2007). In turn, workers employed in different segments of the labor market have different risks for ill-health (Virtanen et al., 2003).

Women, those with high school educations or less, racial/ethnic minorities, and noncitizens are more likely to be found in nonstandard (bad) jobs. Hence, these groups are also more likely to be exposed to the stressful elements of work – particularly low wages, absence of benefits, insecurity, and low decision latitude. To put this in another way, social stratification affects exposure to stressful job conditions and may be regarded as one mechanism that links work-related distress to the observed social gradient in health (Marmot, Bosma, Hemingway, Brunner, & Stansfeld, 1997; Marmot, Ryff, Bumpass, Shipley, & Marks, 1997; Warren, Hoonakker, Carayon, & Brand, 2004). Indeed, it is possible to suggest that some health disparities attributed to structures of inequality occur because of the differences in risk exposure to work-related stressors that follow from differences in labor market positions (see Fig. 21.1). Not only are jobs in the peripheral segment of the labor market less secure and apt to provide less decision latitude, but they are also low wage and rarely include health insurance benefits leading also to differences in health-care access and health outcomes. This account is completely compatible with the social status as fundamental cause of illness argument (Link & Phelan, 1995) and is seen as increasingly relevant for explaining the social gradient in health generally (Clougherty, Souza, & Cullen, 2010).

Women, African Americans, part-time workers, and those with less than a high school diploma (and those with advanced degrees) are more likely to be employed in contingent jobs (Hipple, 2001). White women make only 81.1% of the salary of their male counterparts, Asian women 75.6% of what Asian men earn, Hispanic women 89.9% of what Hispanic men earn, and African American women make 96.2% of the salary of their male counterparts (BLS, 2011b). The median earnings for African American men are only 73.4% of the median for white men; median earnings of Hispanics were lower than those of African Americans, whites, and Asians; and persons with low educational attainment earn from 38% to 56% of the median weekly earnings of college graduates (BLS). Foreign-born men earn 70% as much as native-born men, and foreign-born women earn 80% as much as native-born women. At all education levels, the median weekly earnings of foreign-born workers who work full-time were less than those of their native-born counterparts in 2004 (Mosisa, 2006). Foreign-born workers and especially non-US citizens are more likely to be employed in contingent, time-limited jobs (Hipple). These data, then, suggest that lower status workers are more likely to be exposed to economic and insecurity-related stressors as well as the stressors associated with nonstandard work regardless of specific job characteristics.

It is also worth noting that there is another indirect relationship between structures of inequality and well-being through the labor market. African Americans, Hispanics, and those with no college education (or less than a high school degree) have higher unemployment rates (BLS, 2011a) and are, thus, more exposed to the negative emotional consequences of unemployment as well.

Gender

Men and women still work in very different jobs. Today, those differences are captured by the differences in allocation by gender into standard and nonstandard jobs that, in turn, affect specific job characteristics. These differences have well-documented effects on job outcomes ranging from differences in income (Blau & Beller, 1988) and authority (Wright, Baxter, & Birkelund, 1995) to distress (Barnett & Marshall, 1991).

Compared to men, women constitute one group of workers whose employment is typified by job characteristics that have been found to be stressful. Women's work is concentrated in low-paying occupations, smaller organizations, and peripheral, nonunionized industries (Beck, Horan, & Tolbert, 1978; England & McCreary, 1987; Gabriel & Schmitz, 2007). This occupational segregation is also related to characteristics of the jobs that women typically encounter. Women tend to predominate in occupations that are less flexible and that permit less autonomy than those occupied by men – precisely the characteristics related to high levels of job-related distress (Glass, 1990; Hachen, 1988; Rosenfield, 1989; Tomaskovic-Devey, 1993). These stressful job conditions are now associated with forms of nonstandard employment in which women predominate. It has been suggested that part of the persistent occupational segregation observed by gender is related to the preferences of women related to a desire for more flexible work arrangements (scheduling), especially for family-related considerations (Gabriel & Schmitz, 2007). We will take up this question in the next section on work and family.

Women's job-related distress is, therefore, affected both by the macroeconomic and social conditions that channel women into specific jobs and to the specific job characteristics they encounter within those jobs.

Education

A similar argument can be made for differences in educational status. Just as I suggested that the typical jobs that women hold have characteristics that make them more stressful, the same is true for persons with lower educational attainment (Karasek, 1991; Link et al., 1993). Educational attainment affects job-related distress by sorting workers into jobs with different levels of stressful characteristics. Low educational attainment, for example, is one of the personal characteristics that make it more likely that a worker will compete for nonstandard jobs (Hudson, 2007). Karasek also found that while not all occupations that could be characterized as either "blue collar" or "white collar" contained the same basic job characteristics, jobs with high levels of demand and low levels of decision latitude are more prevalent in blue collar occupational categories. Kohn, Naoi, Schoenbach, Schooler, and Slomczynski (1990) suggest that the traditional indicators of SES (education, income, and occupational prestige) are consistently related to distress only for manual workers. They found that manual workers differ from others largely because their jobs lack the dimension of control of one's own labor. Link et al. found that the crucial characteristic of work which connects socioeconomic status to distress is the extent to which occupations permit workers to control the work of others. They showed that persons in occupations containing the characteristic of direction, control, and planning are less likely to experience depression and that such jobs are linked to higher SES.

Socioeconomic status is related to social class but in a complicated fashion (Kohn et al., 1990). The concept of class distinguishes between those who own the means of production and those who work for owners. Research confirms a relationship (although not a linear relationship) between class-related positions, job characteristics, and distress (Kohn et al., 1990; Tausig & Fenwick, 1993). Tausig and Fenwick showed both that the characteristics of jobs in terms of demands and decision latitude differ by class and that the impact of macroeconomic change on workers is conditioned by class status. Those who work for others and do not supervise others (the proletariat) are more likely to work in jobs with high demands and low decision latitude. During economic downturns, their decision latitude decreases, and their levels of anxiety and depression increase. Owners and supervisors, however, are not immune to the effects of macroeconomic change. The owners of smaller businesses in the peripheral sector of the economy experience increased anxiety following economic downturns, and they also report decreases in decision latitude that affect depression. Depression and anxiety levels for supervisors also increase during recessions because job demands increase and decision latitude decreases. Kohn et al. argued that position in the class structure determines the degree of control one has over the conditions of one's work, especially regarding occupational self-direction (decision latitude), that is related to psychological functioning.

Race/Ethnicity

Membership in nonwhite racial categories has substantial effects on the likelihood that an individual will be employed in a job that contains stressful characteristics (i.e., a nonstandard job) (Hipple, 2001; Kalleberg et al., 2000; Presser, 2003).

African Americans are more likely to be employed in jobs with nonstandard work characteristics, more likely to do shift work, and more likely to work in contingent, time-limited jobs. They also earn less than whites on average and within identical occupations. African American men earn about 73% of the amounts earned by white men (BLS, 2011b). African American women earn almost as much as white women, but earn substantially less than men. In addition, African Americans are more likely to report experiencing racial discrimination in their jobs, and perceived discrimination is related to well-being (Jackson & Saunders, 2006). Studies show that African Americans have less access to "good," well-paying jobs that are high in decision latitude and lower in job demands (Tomaskovic-Devey, 1993). Tomaskovic-Devey found that African American employees are more closely supervised and have less complex tasks, less managerial authority, and less supervisory responsibility than whites.

African Americans and whites also have different risks for unemployment. Unemployment rates for African Americans are routinely nearly twice those for white Americans (BLS, 2011a). Whether this is the result of human capital differences or racist employment policies, the experience of unemployment also contributes to observed rates of distress among African Americans.

Presser (2003) has shown that Hispanic workers are also more likely than non-Hispanic whites to work nonstandard work schedules and shifts, and Hipple (2001) found that Hispanics are more likely to work in contingent jobs. Mosisa (2006) found that foreign-born workers (mainly Mexican born) are more likely to be employed in service occupations; natural resources, construction, and maintenance jobs; and in production, transportation, and material moving occupations. As a result, foreign-born workers make only 76% of the wages and salary of native-born workers. These labor-market-related factors are partially explained by the lower average educational attainment of migrants from Mexico, but Portes and Zhou (1993) have shown that second-generation Hispanic workers appear to lack the usual occupational mobility expected among second-generation workers. Relative to whites, even second-generation Mexicans have been found to be working in jobs with low earnings and benefits (Waldinger, Lim, & Cort, 2007). In short, some racial and ethnic minorities are more likely to work in peripheral, nonstandard jobs with known stressful characteristics.

Citizenship

Immigration status is associated with the segmented labor market, and immigrants are far more likely to obtain jobs that are nonstandard (bad) in nature (Hudson, 2007; Kalleberg et al., 2000). Hence, immigrants are more likely to be exposed to stressful job conditions, including insecurity associated with nonstandard employment. According to Hipple (2001), non-US citizens are almost twice as likely to be employed in contingent jobs as US-born workers. Noncitizens are twice as likely to work in agriculture and five times as likely to work in private household services compared to US natives and naturalized citizens. The relevance of citizenship as a predictor of labor market position has increased substantially in the last 20 years or so. It is a primary predictor of labor market status in the peripheral, nonstandard segment of the labor market. I must note, however, there are no studies of work stress that link immigration status (and especially noncitizenship status) to work conditions and mental health. At this time, the relationship is speculative but is presented here because of the relevance of labor market segmentation to job conditions and stress.

Gender, education, race, ethnicity, and citizenship status (all structures of inequality) affect the exposure and vulnerability of workers to distress by affecting the labor market participation of individuals based on these status characteristics. Women, persons with low educational attainment, racial and ethnic minorities, and immigrants make up groups that are matched to nonstandard work arrangements through the labor market. These nonstandard jobs are shown to contain stressful characteristics including low wages, low benefits, low decision latitude, and high insecurity. Indeed, the way in which social status functions as a distal cause of ill-health is likely to include the way in which social status differences structure exposure to stressors (and support) based on those status differences. This would certainly include structured access to jobs with various characteristics. And, in this case, the exposure to stressful job conditions also includes access to health insurance (as an absent benefit) so that a partial explanation for health disparities related to social status would include exposure to more stressors as well as the inability to get care for illness conditions that arise from them.

Work and Family

The increased participation of women in the paid labor force and the psychological effects on women of that participation can be partly understood as a function of the consequences of social structures of inequality on work-related stress and distress (above). But, particularly, because of the increased participation of women in the labor force (but not exclusively so), the intersection of the family as a social institution with work has also been studied as a source of work and/or family-related stress (family-work interference, work-family interference).

Figure 21.1 suggests two pathways by which family intersects with work to affect work-related distress: family considerations affect the participation of family members in the labor market, and family also affects job characteristics. (Figure 21.1 also indicates a direct relationship between family and well-being, but this nonwork-related connection is not discussed in this chapter.) There is also a very sizable research literature on the relationships between work and family that centers on how each social institution creates conflict or interference for the individual family member as worker or worker as family member. This literature shows that work-family interference and family-work interference significantly affect worker's well-being (Frone, 2000; Greenhaus & Beutell, 1985; Grzywacz & Bass, 2003).

In the section above, I explained that one way that gender inequality affects well-being is through the different labor market positions of men and women and the consequent differences in exposure to stress-related job characteristics that follow. Specifically, women are more likely to work in nonstandard jobs that are part-time, temporary, and/or contingent. Hence, women are more often exposed to work-related stressors such as low decision latitude, high job insecurity, low wages, and absent benefits such as health insurance that are characteristic of nonstandard jobs. I also noted that between 50% and 60% of workers with nonstandard schedules would prefer standard, full-time, and more permanent employment.

But when we look at those workers who prefer working nonstandard work schedules, we find that family-related reasons are often given to explain such preferences (Presser, 1995, 2003). Both men and women (but more often, women) indicate that nonstandard work arrangements are preferable because such employment allows for better child-care arrangements and/or better arrangements for care of other family members. Moreover, for women particularly, the presence of one or more children over the age of five is associated with a greater preference for nonstandard work arrangements. If we view the family and work as "greedy" institutions that both demand participation and time commitments, then it is clear that voluntarily choosing nonstandard work hours is one way to solve this time bind and, therefore, to reduce stressors and ill-health-related outcomes created by the need to meet both work and family demands (Fenwick & Tausig, 2001; Tausig & Fenwick, 2001; Voydanoff, 1988). In short, one way that the family affects work-related stress is that family conditions affect self-selection into the standard work arrangement, primary segment of the labor market with "good" jobs, or into the nonstandard work arrangement, secondary segment of the labor market with "bad" jobs.

The participation of women in the labor force has also directly affected some aspects of work organization and subsequent job conditions. In order to retain permanent workers who have conflicting or demanding family obligations, some firms have introduced "family-friendly" work policies that include flexible work scheduling, provisions for child care, and extended maternity or paternity leave (Berg, Kalleberg, & Appelbaum, 2003; Davis & Kalleberg, 2006; Glass & Fujimoto, 1995; Osterman, 1995). Hammer, Saksvik, Nytrø, Torvatn, and Bayazit (2004) suggest that family-friendly work norms may be regarded as job conditions related to work stress exactly in the sense that job demands, decision latitude, and coworker and supervisor support have been. Family-friendly work policies should reduce work stress and work-family distress.

Glass and Fujimoto (1995) and Anderson, Coffey, and Byerly (2002) argue that family-friendly work policies reflect an effort to counteract absenteeism, turnover, and job dissatisfaction, especially in organizations with a high proportion of female workers (Davis & Kalleberg, 2006). Osterman (1995) and Berg et al. (2003) have observed that family-friendly work organization policies are associated with the presence of high performance work organizations (HPWO) since such policies appear to increase worker commitment to the organization and high levels of involvement that are essential to the success of high performance work organizations.

Family-friendly work policies are thus offered to core employees in HPWOs and particularly to professional and managerial-level employees (Davis & Kalleberg, 2006; Glass & Estes, 1997), and such policies function as a job condition that affects work-related stress and strain (Hammer et al., 2004). Indeed, Thomas and Ganster (1995) have shown that flextime is related to decreased depression and somatic complaints by workers, although a meta-analytic review of family-friendly work environments by Mesmer-Magnus and Viswesvaran (2006) finds that overall family-friendly work environments have few positive effects on worker's well-being. It is worth noting in this context that family-friendly work policies are generally not available to part-time, temporary, and contingent employees, but, as I noted earlier, such workers may self-select nonstandard work arrangements precisely because these forms of work effectively help manage family-work interference even if it is at the cost of lower wages, job insecurity, and fewer formal benefits.

Thus, one consequence of attempts to balance work and family roles is exposure to labor market conditions that do not favor positive job conditions. "The very job characteristics that would reduce stress and job-family tension among employed mothers are difficult for them to obtain because these rewards are linked to an authority and reward structure that places women in marginalized 'women's jobs'…" (Glass & Camarigg, 1992, p. 148).

In addition to family effects on labor market participation and the availability of family-friendly job conditions, there is an enormous research literature on the psychological consequences of work-to-family interference and family-to-work interference. What may generically be called work-family conflict can be viewed as leading to work-related or family-related stress and is intended to describe the literal intersection of work and family demands and the negative psychological outcomes based on that intersection. While the discussion above clearly suggests that the levels of work-family conflict are a function of labor market position, job conditions, and the organizational context, much work-family conflict is a function of competing demands and the management of those demands. Work-family conflict has been shown to be related to psychological distress (O'Driscoll, Ilgen, & Hildreth, 1992), stress (Kelloway, Gottlieb, & Barham, 1999), mood, anxiety, and substance use disorders (Frone, 2000; Grzywacz & Bass, 2003) and illness symptoms (Hammer et al., 2004; Klitzman, House, Israel, & Mero, 1990).

The specific structures of paid work and family work may cause distress that spills over or contaminates the level of psychological well-being associated with the other role. Meeting expectations in both the paid labor force and in families requires the management of job demands and scheduling demands in both spheres of activities (Voydanoff, 1988). For both paid labor and household labor, the balance of demands and decision latitude in each sphere can be used to estimate overall distress (Lennon & Rosenfield, 1992). Rosenfield (1989) showed that a woman's ability to control demands in the work sphere improved her ability to control demands in the domestic sphere. Hughes, Galinsky, and Morris (1992) reported that workers in jobs with high demands and low supervisor support have more frequent marital arguments because high job demands increase the pressure to also complete family-related demands. Pleck and Staines (1985) reported that longer work hours for women lead to greater negative effects on family well-being, and Bolger, DeLongis, Kessler, and Wethington (1989) found that high levels of work hours, for husbands or wives, lead to increased strain for both husbands and wives. Similarly, Sears and Galambos (1992) found that high job demands and low pay for women lead to increased work-related distress, which, in turn, affects marital adjustment. Piotrkowski (1979) and Kanter (1977) found that control over scheduling at work is most crucial for determining whether work hours conflict with family demands.

Byron (2005) reported a meta-analytic review of over 60 studies of work-family conflict that reviewed the antecedents of work-family conflict. She concluded that job stress, family stress, and family conflict affect both work-to-family interference and family-to-work interference. In short, the simultaneous demands of work and family plus the existing degrees of conflict and strain in each sphere can be used to predict well-being. To the extent that structural features linked to job conditions affect job stress, it may be inferred that those same features will indirectly affect work-to-family-related distress. This is precisely what Schieman et al. (2009) argue. Using the demands/resources model of Bakker and Demerouti (2007), they predict work-nonwork interference (as opposed to work stress) as a function of job conditions that are themselves partially determined by social status. This explanation is based on a model that is quite similar to the one outlined in this chapter and strongly suggests the value of conceptualizing work-life interference/conflict/stress research using a social structural explanation to more comprehensively account for well-being.

Conclusion and Prospects

The sociological study of stress reflects the recognition of the importance of social structures and context for understanding this ubiquitous phenomenon. The principle has been articulated frequently and convincingly to define the sociology of health and mental health (Aneshensel, 2009; Aneshensel, Rutter, & Lachenbruch, 1991; Link & Phelan, 1995; Pearlin, 1989, 1999).

This chapter, then, has explored a social structural explanation for the relationship between work and psychological well-being. I have shown how macroeconomic structures and change, labor market structures, social structures of inequality, the organization of work, and the intersection of work with family affect the stressfulness of jobs. These social structures affect exposure to risk (work-related stressors) and access to resources that contribute to feelings of well-being or distress. The macroeconomy defines the overall demand for labor and its form. The labor market distributes those jobs. Social structures of inequality influence labor market participation, and family situations affect labor market participation and preferences. The outcome of these structural effects defines the immediate work context of employees including their exposure to stressful job conditions and coping resources and, hence, stress.

I have organized the discussion in such a way that researchers who are focused on one particular aspect of the work-stress relationship might see how that work articulates with others working in related areas. The articulation between these approaches is not seamless. However, it is also clear that researchers are increasingly aware of the need to account for these dimensions of structure as they develop a more complete understanding of how work affects well-being. This enterprise is also consistent with the notion of a sociological stress process (Pearlin, 1989, 1999), with the notion of social structure as a fundamental cause of illness (Link & Phelan, 1995), and with the need for medical sociology to establish clear connections with the larger discipline of sociology (Pescosolido & Kronenfeld, 1995). Tausig and Fenwick (2011) and Fenwick and Tausig (2007) argue, for instance, that the work-well-being model, as it is mapped onto arguments about the political economy, opens the possibility to think of health outcomes in the same way that we think of economic outcomes (status and income attainment, social mobility). In this way, for example, the sociology of mental health becomes sociology in general.

Limits and Prospects

There is an enormous volume of research on the relationships between work and health/mental health, and the review here has been selective among that research. For example, the emphasis on structural effects should not belie the importance of understanding the relationship between work and emotions.

Hochschild (1983) argues that one of the consequences of the macroeconomic shift to service-related jobs in postindustrial societies is the increasing frequency with which jobs require the transformation of human raw material (the customer) via a process of "emotional" labor. She argues further that "emotional labor" exacts a direct cost on the emotional well-being of the worker by estranging the worker from his/her own emotional identity. Precisely because jobs increasingly require "working with people," we need to incorporate an understanding of how people processing affects well-being (Erickson & Ritter, 2001; Pugliesi, 1999).

Similarly, the current shift to contingent employment and the "flexible" work force represents a historical shift in the relationship between employer and employee. Job characteristics have become moving targets in terms of their relevance to job stress. I have restricted my discussion to only a few of those job characteristics, but it is clear that the simple model of job demands/control should be elaborated to account for a larger set of job conditions.

A growing literature suggests that we need to think of work in a life course perspective. For instance, middle-aged workers sometimes lose their jobs because of the decline of certain industries or plant relocations. These workers may attempt to "retrain" to qualify for existing jobs, but we know almost nothing about the psychological consequences of this increasingly prevalent situation (Geller & Stroh, 1995). Hudson (2007) notes that there is a great deal of mobility from peripheral to core jobs that has consequences for the deterministic way that I have discussed the relationship between social structures of inequality and job stress. And while Hudson also notes that many current jobs may be classified as neither good nor bad, Rich (2010), for example, suggests that the current deep recession is leading to the loss of those "middle wage-middle quality" jobs. Indeed, we probably need to understand work roles as highly fluid and changeable (permanent, temporary, unemployed, underemployed, involuntary, and voluntary). As a result, we need to be much more sensitive to the dynamics of jobs and their structural context (family, neighborhood, social networks) to understand the relationships between work and work-related well-being.

As we think more in terms of social structures and how they affect job stress, we need to elaborate our general theory to better account for how social structures of inequality function as distal causes of illness. In fact, the study of work and stress makes it clear that social institutions such as work represent the day-to-day context in which the injuries of inequality play out.

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Chapter 22
Religion and Mental Health

Scott Schieman, Alex Bierman, and Christopher G. Ellison

In this chapter, we focus on the extent to which religion has relevance for mental health, especially the ways in which it functions as a resource in people's lives—in everyday life and particularly during times of need. Although early psychological perspectives tended to underscore the negative view of religion as a psychological weakness and form of pathology (Ellis, 1983; Freud, 1928), recent research increasingly has documented the potential for a beneficial relationship between different dimensions of religion and psychological well-being (Koenig, McCullough, & Larson, 2001; Smith, McCullough, & Poll, 2003). This chapter examines the ways in which prominent forms of religious involvement influence mental health directly and indirectly through the accumulation of resources; it also addresses the role of religion in attenuating the association between stress exposure and unfavorable mental health outcomes. Moreover, we seek to further elaborate on—and scrutinize—the "resource" characterization of religion by focusing on the potential for some forms of religiousness to have negative associations with mental health or exacerbate the impact of some stressors.

There is a vast terrain one might cover in a literature review of this type (see Ellison, 1994; Ellison & Henderson, 2011; George, Ellison, & Larson, 2002; Hill & Pargament, 2003; Schieman, 2010; Schieman & Bierman, 2011). For organizational clarity, therefore, we limit our focus to three themes: (1) religious activity, (2) religious belief, and (3) religion during times of stress. Each of the following sections summarizes major conceptual, theoretical, and empirical perspectives associated with these themes and their links to mental health. In examining these three themes, there are also many mental health outcomes that could be examined, such as addictions, schizophrenia, and personality disorders. However, the majority of sociological research on religion and mental health has been limited to affective disorders, and mainly symptom counts rather than diagnostic outcomes. As a consequence, we concentrate most of our attention on these outcomes. Research also has examined positive indicators of mental health (e.g., happiness and life satisfaction), so we include evidence about these outcomes

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S. Schieman (✉)
Department of Sociology, University of Toronto, 725 Spadina Ave., Toronto, ON, M5S 2J4, Canada
e-mail: scott.schieman@utoronto.ca

A. Bierman
Department of Sociology, University of Calgary, Calgary, AB, Canada

C.G. Ellison
Department of Sociology, The University of Texas at San Antonio, San Antonio, TX, USA

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as well. In addition, most sociological research on religion and mental health is focused on a Western context—especially the USA. This is an important qualification because the USA is predominantly Christian in its denominational orientation, with over three-quarters of adults identifying themselves as Christians (Kosmin & Keysar, 2009). For this reason, we focus on Judeo-Christian institutions, practices, and beliefs in the USA, but in the section on future research directions, we describe emerging comparative work that examines religion and mental health in a non-Western and cross-cultural context.

Religious Activity

Individual religiousness is a complex, multidimensional phenomenon (Hill & Pargament, 2003; Idler et al., 2003). Within these parameters, researchers have examined specific behaviors such as self-reported frequency of attendance at religious services and the frequency of prayer (Ellison, Boardman, Williams, & Jackson, 2001; Ellison & Levin, 1998; Flannelly, Ellison, Galek, & Koenig, 2008; George et al., 2002). It is these activities that provide the clearest account of the relationships between religious activity and mental health—and for this reason, we focus primarily on them in this section.

A Key Form of Public-Organizational Involvement: Religious Attendance

The broad consensus among researchers is that there are potential mental health benefits of public or organizational forms religious involvement; the frequency of attendance at religious services falls into this category. Research demonstrates that frequency of attendance is negatively associated with psychological distress and positively related to psychological well-being (i.e., life satisfaction, happiness). For example, a 1995 survey of residents in the Detroit area by Ellison and colleagues (2001) found that the frequency of attendance at religious services is associated with less distress and greater life satisfaction. These patterns held net of statistical controls for socio-demographic characteristics, stressors, and other resources. Similarly, other studies show that Americans' frequent attendance is related to less distress and greater happiness and life satisfaction (Ellison, Burdette, & Hill, 2009; Maselko & Kubzansky, 2006; Musick, 2000).[1] Research also finds an inverse relationship between religious attendance and major depression diagnosis (Baetz, Bowen, Jones & Koru-Sengul, 2006), although there is less evidence of a link between attendance and anxiety disorder (Chatters et al., 2008; Koenig, Ford, George, Blazer, & Meador, 1993). Longitudinal assessments of the link between attendance and mental health are more infrequent, but some have demonstrated a beneficial association over time (Braam et al., 2004; Childs, 2010; King, Cummings, & Whetstone, 2005; Law & Sbarra, 2009; Norton et al., 2008; but see Ellison & Flannelly, 2009).

Given the generally positive link between attendance and psychological well-being (at least in the US context), the question becomes: "*Why does this relationship occur?*" Theoretical and empirical perspectives identify key social and psychological mechanisms. For example, religious contexts often facilitate the development and maintenance of larger social networks and the frequency of interaction with network members (Bradley, 1995; Ellison & George, 1994). The benefit of these networks for

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[1] Additional research has examined the relationship between a variety of aspects of religiosity and psychological well-being using more idiosyncratic samples, such as college students or members of a specific church. Because the applicability of this research to a sociological interest in gradients of mental health in the population is limited, we generally do not review this research here.

well-being helps explain the positive link between attendance and well-being (Barkan & Greenwood, 2003; Lim & Putnam, 2010). The social connections created through frequent attendance promote mental health, in part because social interactions with like-minded congregants reinforce a common set of beliefs, values, and interests that, in turn, benefit mental health. Krause (2002a, 2002b) demonstrates this process by showing that people who frequently attend religious services had a greater tendency to share and cultivate a mutual belief system with others, reinforcing personal experiences like "connectedness with God" that contributed to better psychological well-being. In addition to religious support, involvement in one's congregation may provide a range of emotional and instrumental forms of support (Ellison, Krause, Shepherd, & Chaves, 2009; Krause, 2008; Taylor & Chatters, 1988) and make available more formal, organized sources of aid and/or counseling (Chaves & Tsitos, 2001; Neighbors, Musick, & Williams, 1998; Trinitapoli, Ellison, & Boardman, 2009). An additional element in these processes likely involves *anticipated social support*, which is "the belief that social network members will provide assistance in the future should the need arise" (Krause, 2006b, p. 126); some research suggests that this resource may not only be more important than enacted support but also that expectations of support are cultivated by regular engagement in a community of like-minded believers (Ellison & Henderson, 2011; Krause, 2006b).[2]

Beyond the social resources that religious attendance can provide, there are several additional psychological correlates of attendance that might enhance mental health. For example, attendance is associated with the belief that a divine power is influential in everyday life, and both attendance and beliefs in the divine's causal relevance are linked to a sense that one matters to others (Schieman, Bierman, & Ellison, 2010); mattering, in turn, is a key resource for mental health (Fazio, 2010; Taylor & Turner, 2001). Similarly, attendance is positively associated with other aspects of the self (e.g., self-esteem) by bolstering a sense of meaning (Ellison, 1993; Krause, 2003a; Krause & Ellison, 2007).

The sense of personal control (or mastery) is another important psychological resource for mental health (Chap. 19), but theory and evidence about the relationship between religious attendance and personal control is complex. Although several studies have documented a positive association between attendance and the sense of control (Ellison, 1993; Ellison & Burdette, 2011; Schieman, Pudrovska, & Milkie, 2005), others have shown no relationship with related constructs like "environmental mastery" (Greenfield, Vaillant, & Marks, 2009). These conflicting findings may be attributable to the ways that religious attendance is related to beliefs that enhance and diminish personal control—a possibility we examine in a later section of this chapter.

Although most published research points toward an inverse relationship between attendance and distress, some studies have suggested the potential for a detrimental relationship with mental health, in particular examining the possibility of negative social interactions within the religious environment. In general, negative interactions can harm well-being (August, Rook, & Newsom, 2007; Newsom, Nishishiba, Morgan, & Rook, 2003). In the context of religious groups, however, negative interactions may be particularly problematic because people are often seeking (or expecting) comfort and support. These adverse interactions might involve theological differences, the administration of congregational affairs, political matters, or the real or perceived intrusiveness and judgmental views of church members. Evidence suggests that if others in one's congregation are too critical or demanding, distress may increase and diminish well-being (Ellison, Burdette, & Wilcox, 2010; Ellison, Zhang, Krause, & Marcum, 2009; Krause, Ellison, & Wulff, 1998; Sternthal, Williams, Musick, & Buck, 2010).

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[2] It is also important to acknowledge the complexity of exchange dynamics within congregational social support systems. For instance, some studies have reported health benefits from the provision of support to others, and from volunteering in pro-social efforts, both of which may be initiated within religious groups (Musick & Wilson, 2003; Wilson & Janoski, 1995). In addition, there are suggestions that individuals gain more from balanced, symmetrical support systems (i.e., from giving and receiving support in roughly equal measure), as opposed to those characterized by dependency (i.e., receiving much more than giving) or exploitation (i.e., giving much more than receiving) (Maton, 1987).

Presumably, greater involvement in religious activities increases exposure to not only beneficial social exchanges, but to those that are potentially harmful as well. And yet, in a study of a national sample of congregations, Ellison and colleagues (2009) found that attendance was unrelated to frequency of negative interactions within the congregation. However, in examining this relationship, the researchers controlled for the number of one's close friends in the church—a factor linked with more frequent negative social interactions. Given the strong relationship between religious attendance and number of friends in a congregation (Lim & Putnam, 2010), it is possible that religious attendance facilitates social ties that in turn increase the risk of negative social interactions within the congregation. Models that control for the number of close friends in one's congregation likely account for an association between the frequency of attendance and negative interactions within the congregation—a set of patterns that deserves further attention.

Attendance at religious services is not only of interest to the sociological study of mental health because of its relationship with psychological well-being but also because the relationship between attendance and mental health may vary by social statuses; *race* is among the most central. From one perspective, religion is especially potent for mental health among African-Americans because the Black church historically has provided a particularly important social space of expression, healing, and validation in the face of antipathy and persecution from larger society (Gilkes, 1980; McRae, Carey, & Anderson-Scott, 1998). These hypothesized therapeutic benefits are demonstrated in Krause's (2003a) findings from a national sample of older adults. Compared to White elders, among African-Americans: (1) religious attendance was more strongly related to lower levels of depression; (2) attendance was more strongly connected to forgiveness of others; and, in turn, (3) forgiveness of others was related to lower levels of depression. Tabak and Mickelson (2009) also found a stronger relationship between attendance and distress for African-Americans than non-Hispanic Whites.[3] These race differences may be partly attributed to the greater support that African-Americans derive from religious involvement, as well as the greater role that clergy have in the self-esteem of African-Americans and the integral role that African-American pastors have in serving as counselors for their parishioners (Krause, 2002b, 2003c; Young, Griffith, & Williams, 2003). Yet, some research fails to document race contingencies, finding instead that attendance is related to life satisfaction in similar ways for Whites and African-Americans (Musick, 2000). Clearly, then, race differences in the benefits of religious attendance provide complexities that deserve greater scrutiny, especially in how these race differences may vary across different outcomes.

Although some studies have focused on other social statuses such as age, gender, or education, the evidence regarding the extent to which the relationship between attendance and mental health varies by these other statuses remains quite thin. Among the few such studies, Toussaint and colleagues (Toussaint, Williams, Musick, & Everson, 2001) found that the relationship between attendance and both distress and life satisfaction did not vary across three age cohorts of adults (however, see Braam, Beekman, van Tilburg, Deeg, & van Tilburg, 1997). Maselko and Kubzansky (2006) found that public religious activity was related to lower levels of psychological distress for both men and women, although public religious activity was related to happiness only for men. Conversely, McFarland (2010) examined changes in depression among older adults and found that a composite measure of organizational religiosity was beneficially related to depression for men but not women; Norton and colleagues (2006) found similar results for major depression. Although the reasons for these patterns are not evident, they suggest that researchers should develop and evaluate the theoretical ways that

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[3] Tabak and Mickelson (2009) also reported a nonlinear relationship between attendance and distress for whites and suggested that this finding was because those who are very distressed felt a greater need to attend religious services or were not as able to engage in religious services (p. 59). They are also one of the few researchers to have compared non-Hispanic whites to Hispanics and found that the relationship between religious attendance and distress is stronger for Hispanics, although the relationship was similar for Hispanics and African-Americans.

social statuses might moderate the relationship between attendance and different mental health outcomes, and also explore explanations for any observed social status contingencies.

A Key Form of Private-Devotional Religious Involvement: Prayer

Unlike the observations for the relationship between frequency of attendance and mental health, the results for the relationship between prayer and mental health are less straightforward. From a positive view, prayer may be associated with better mental health by: (1) facilitating and reinforcing a personal relationship with a perceived divine other, (2) enhancing a sense of meaning and purpose, (3) instilling a greater sense of self or reinforcing a more positive self-concept, and (4) creating a momentary personal respite that can allow negative emotions to subside. Prayer may facilitate and reinforce a personal relationship with a perceived divine other because when people pray they often feel a sense of engagement with an involved divine other (Whittington & Scher, 2010). Frequent divine contact (via prayer) can make the world seem more coherent and cohesive by cultivating a set of principles for living that guide personal conduct; this is reflected in findings that prayer is associated with a greater sense of religious meaning (Krause, 2003a). Furthermore, by reinforcing a close connection with a perceived—and sometimes highly personal—divine entity, more frequent prayer can bolster various aspects of the self, such as self-esteem and mattering (Ellison, 1993; Schieman et al., 2010).

Studies of diverse populations have shown that the frequency of prayer is associated with better mental health and psychological well-being (Francis & Kaldor, 2002; Levin & Taylor, 1998; Meisenhelder & Chandler, 2001). By contrast, however, other research reveals that the relationship between prayer and mental health is not always positive. Several community-based studies, for example, have shown that increased prayer is associated with greater depression and anxiety, and less life satisfaction and optimism (Bradshaw, Ellison, & Flannelly, 2008; Ellison et al., 2001; Hank & Schaan, 2008; Krause, 2003a; Sternthal et al., 2010). Likewise, Ellison and Lee (2010) observed a positive association between frequency of prayer and psychological distress net of religious attendance, a “troubled relationship” with God, religious doubts, and negative interactions within one’s religious congregation.

Although the negative relationship between prayer and mental health may seem counterintuitive—especially in the context of the generally positive association between attendance and well-being—some researchers have suggested that this relationship may be an artifact of the cross-sectional design of many studies. For example, Bradshaw and colleagues (2008) asserted: “individuals who are confronting high levels of stress and distress pray more often” (p. 654). Thus, it is plausible that some individuals increase the frequency of prayer in response to challenges and distress.

Alternatively, these contrasting findings may be due to the multivalent nature of prayer. Scholars have identified a number of distinct forms of prayer, such as ritualistic, petitionary, and meditative prayer (for details, see Masters & Spielmans, 2007; Peacock & Poloma, 1999). The substantive features of prayer appear to have different relationships with mental health. One study finds that prayers characterized as “adoration,” “thanksgiving,” or “reception” are associated with higher levels of self-esteem, optimism, sense of meaning, and life satisfaction, while prayers described as “confessional,” “supplication,” and “obligation” tended to be associated with more negative psychological outcomes (Whittington & Scher, 2010; see also Masters & Spielmans, 2007; Poloma & Pendleton, 1991).

Krause (2004) offers insights into these differences by exploring “prayer expectancies” among older adults, finding that placing more faith in God’s initiative to respond to prayer is linked with higher levels of self-esteem, particularly among African-Americans. Krause explains:

> “It seems that prayer expectancies are more likely to be disconfirmed if people believe their prayers are answered right away and if they believe they will get exactly what they ask for. In contrast, it would be more difficult to invalidate prayer expectancies if people are willing to wait for a response and if they are willing to accept responses that differ from what they request initially” (Krause, 2004, p. 397).

Similarly, Bradshaw and colleagues (2008) demonstrated that the relationship between prayer and mental health depended on the perceived character of the divine other. Specifically, prayer was associated with greater symptoms of psychopathology among believers who perceived a higher power as "remote" or "unloving." By contrast, prayer was associated with fewer symptoms of distress among those who perceived a divine other as "close." More frequent divine interaction, therefore, may be stressful for some people, while for others it might be a supportive psychosocial resource. Conceptual and theoretical advances are needed on this front.

Taken together, the evidence to date suggests that any hypothesized benefits of prayer for mental health may not evolve as much from the *frequency* of prayer, but instead in the methods of prayer and the perceived nature of divine relations or images—or even the divine's character (Froese & Bader, 2010). Longitudinal designs that pay more attention to the functions and purposes of prayer are two ways that future research might address these questions. Longitudinal studies would help address the issue of whether the negative association observed between prayer and mental health in cross-sectional studies is due to the use of prayer as a coping resource during times of stress or distress. Similarly, more detailed measures of the nature and purpose of prayer—beyond simple measures of frequency—could enrich our knowledge about both the detrimental and beneficial effects of prayer across various social contexts.

Finally, we know little about the ways that any observed associations between different forms of prayer and distress might differ across social statuses. Although Krause (2003b) found that frequent attendance is more important for mental health among older African-Americans, he also observed that some prayer expectancies are more strongly related to self-esteem among African-Americans than White elders (Krause, 2004). Given the importance of religion for expression and validation among African-Americans (Gilkes, 1980), it is conceivable that divine interactions may be particularly related to the sense of self for these individuals. Questions about the role of additional social status contingencies (e.g., gender, age, education) in the association between prayer and mental health remain theoretically underdeveloped and untested.

Religious Belief

As some scholars assert, at its most basic level *religion is about belief* (Froese & Bader, 2007, p. 466). Although the psychological and social resources that religious activity can provide are central for mental health, beliefs are a key component of any discussion about the mental health effects of religion. In this section, we describe theory and evidence about the relevance of religious beliefs for mental health. We focus primarily on the ways that beliefs about a perceived divine entity (e.g., God) are associated with the meaning, significance, and consequences of stress because beliefs about a higher power provide a foundation for many religious belief systems. In the second part of this section, we consider the relevance of afterlife beliefs because of their potential utility for addressing questions of purpose and uncertainty, particularly during times of personal troubles.

Beliefs About God

Having a close, personal relationship with a perceived divine other is a core feature of the religious life (James, [1902] 1999). More specifically, as Exline (2002) asserts, "for many believers, the cultivation of an intimate relationship with God is a cornerstone of religious life" (p.185). Thus, even though the behavioral aspects of religion are essential to mental health, beliefs about the divine are a pivotal feature for understanding these dynamics. For example, Petersen and Roy (1985) emphasized the significance of particular beliefs about divine involvement and influence in the relationship between adversity and psychological well-being:

> "Biblical passages (and religious leaders) frequently stress the notion that God is a personal being who watches over and cares for adherents' lives and that He intervenes to ensure that their problems will be favorably resolved. The internalization of this notion should allow the individual to be optimistic even in the face of difficult problems and thereby reduce feelings of apprehension or discouragement" (p. 52).

These sorts of ideas advance specific claims about the link between divine beliefs and well-being. Are they accurate? An early study documented the mental health significance of relationships with a perceived higher power. Pollner (1989) examined "divine relations"—a measure of the "psychological proximity of a divine other and the frequency and depth of interaction with that other" (p. 95). Pollner avoided presumptions about the "objective reality" of God's existence and instead focused on the *perceptions* people hold about interactions with a divine other. He observed that perceived divine relations were related to higher levels of happiness and life satisfaction. More recently, Childs (2010) documented a positive association between what she labels a "relationship with God" and general happiness.[4] Stark and Maier (2008) and Levin (2002) have found similar relationships (see also Ellison & Fan, 2008). By contrast, however, the *lack* of a positive relationship with a perceived divine other may be detrimental to mental health. For example, Ellison and Lee (2010) found that a troubled relationship with God is associated positively with distress. Similarly, Exline and colleagues (Exline, Yali, & Sanderson, 2000) found that feeling abandoned by God and a lack of trust in God is related positively with symptoms of depression.

Other studies have examined beliefs about a perceived divine other and report mixed results. For example, Ross (1990) asked a random sample of Illinois residents about two aspects of their beliefs: (1) the extent that trust and belief in God contributes to their own success in life, and (2) the extent that God will reward those who try to do their best. Ross observed that people who more strongly endorse these beliefs had levels of distress similar to those who did not endorse them. Likewise, Poloma and Pendleton (1990) found that the sense of being close to God was unrelated to distress, life satisfaction, and happiness. However, closeness to God was related positively to two indicators of "existential well-being"—purpose and meaning in life.

Studies examining specific dimensions of divine beliefs suggest that contradictions in these findings may be due to a lack of specificity regarding how divine beliefs are conceptualized or measured. For example, Bradshaw and colleagues (2008) found that American adults who believed that God is a loving, approving, and forgiving figure tended to report fewer symptoms of psychopathology, whereas individuals who held images of God as a remote figure tended to report more symptoms. These results help to explain contradictory findings regarding beliefs about God and mental health because they suggest that the key contingency may not simply be *whether* one feels close to God, but rather *the type* of God to which one feels close (also see Flannelly, Galek, Ellison, & Koenig, 2010). When it comes to divine conceptions, the balance of evidence seems to suggest that it is the belief in a close, caring, supportive divine other that has the strongest positive influence on mental health, whereas belief in a distant or disapproving higher power may be detrimentally related to mental health.

In addition to analyses of divine images, research has also focused on beliefs about the aspects of personal relationships with a perceived divine other. One set of beliefs that have particularly received attention involve the belief that God controls the events and outcomes in everyday life. In an early study of a small sample of African-American Baptists in the Washington, DC area, Jackson and Coursey (1988) found that a measure of the "degree of attribution to God as an active causal agent" was positively related to purpose in life, even when personal control beliefs were held constant.

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[4] The measure of "relationship with God" includes frequency of praying and the strength of belief in the existence of God.

Krause later developed a similar construct—“God-mediated control”—that is, when individuals “work collaboratively with God to master the social environment” (2007, p. 519). Among a national sample of older adults, Krause (2005) found that belief in God-mediated control is associated with higher levels of life satisfaction and optimism, and lower levels of anxiety about death. Moreover, not only did African-Americans report stronger beliefs in God-mediated control than Whites, the positive influence of this belief on the psychological outcomes was stronger among African-Americans.

In our own research, we have examined a related construct—the “sense of divine control” or “the belief that God personally exerts a commanding authority over the course and direction of one’s life” (Schieman & Bierman, 2007, p. 361). We found that older African-Americans report stronger beliefs in divine control than comparable Whites, and these beliefs are predictive of lower anxiety only among African-Americans—especially those with fewer socioeconomic resources (Schieman, Pudrovska, Pearlin, & Ellison, 2006). This research once again underscores that race is an important moderating status in the relationship between different forms of religiousness and mental health, but it also draws attention to socioeconomic position as well.

One reason why beliefs about God’s involvement in everyday life are important for mental health is due to their relationship with psychological resources. Here too, though, social statuses are moderators. Schieman and colleagues (2005) demonstrated that the sense of divine control is associated with levels of self-esteem and the sense of mastery, but these patterns were contingent upon both gender and race. Specifically, divine control was more strongly related to mastery among African-Americans (compared to Whites), while divine control was more strongly related to self-esteem among African-Americans and women. Krause (2005) found a comparable pattern for God-mediated control, which was more strongly related to self-esteem among older African-Americans. Similarly, Schieman et al. (2010) found that a sense of divine control was more strongly related to mattering among African-Americans, women, and those with lower education. Overall, this research suggests that the belief that a perceived divine other is involved and influential in everyday life may be especially beneficial for psychological resources among groups that have traditionally held less objective power in secular affairs.

Schieman (2008) further demonstrated that the link between divine control beliefs and some psychological resources is particularly complex, with additional aspects of the religious role altering the relationship between divine control beliefs and the sense of personal control. Specifically, he found that a negative association between divine control beliefs and personal control was stronger among individuals who report low levels of subjective religiosity and less-frequent praying and attendance activity. By contrast, divine control and personal control were unrelated among individuals who were more deeply invested in and committed to the religious role. Thus, individuals who believe that God is a causal agent in their lives—but who do not engage in other elements of the religious role—tend to report the lowest levels of personal control. This research suggests that belief in the causal agency and influence of a powerful divine other without concomitant levels of personal religious commitment may be associated with lower levels of the sense of personal control—key patterns that inspire further theoretical development.

Interest in the sense of divine control for the sociological study of well-being is related to the way that these beliefs are based within religious activities. As Berger (1967) claims: “religious ideation is grounded in religious activity” (p. 40). The ritual of religious activities, together with engagement in a group of like-minded others, may provide vital reinforcement for one’s religious beliefs. However, research also indicates that the importance of religious activity for beliefs about God may depend on social statuses. In a longitudinal study of older adults, Schieman and Bierman (2007) found that low levels of religious activities were associated with decreases in beliefs about divine control more strongly for Whites (as compared to African-Americans) and people with higher SES. These patterns further underscore how divine control beliefs may be more important—independent of religious activities—among groups whose social circumstances tend to contain less objective power and fewer secular resources.

Some researchers have focused on other dimensions of beliefs about God as possible influences on mental health—especially beliefs involving *doubts*. Broadly speaking, religious doubt can be seen as “a feeling of uncertainty toward, or questioning of, religious teachings or beliefs” (Hunsberger, McKenzie, Pratt, & Pancer, 1993, p. 28). Religious doubts can contribute to distress in several ways (Galek, Krause, Ellison, Kudler, & Flannelly, 2007; Krause, 2006a; Krause, Ingersoll-Dayton, Ellison, Wulff, 1999). First, religious scriptures warn the faithful against doubt, and conservative theologians have long echoed these injunctions. Thus, doubt may carry stigma within religious communities, and it may be difficult for individuals to discuss such doubts with church members or clergy; this lack of support or guidance in the face of doubts may further complicate the situation. Viewed from the standpoint of identity theory, individuals with significant doubts may experience cognitive dissonance because this lack of spiritual clarity may conflict with their personal identities as religious persons. Collectively, these processes may foster psychic strain and require either the reduction of doubts or a diminished salience of religious identity to resolve this discomfort. In addition, doubt may deprive individuals of resources that religion can offer—especially existential certainty, coherence, meaning, and a sense of purpose. Research confirms that the level of religious doubt is positively associated with symptoms of depression (Krause & Wulff, 2004). Moreover, this association has been demonstrated independent of various aspects of religious involvement, negative interactions within the religious setting, and reports of having a troubled relationship with God (Ellison & Lee, 2010); similar patterns have been found in studies of levels of life satisfaction and happiness (Ellison, 1991).

As noted for the other forms of religiousness, social status variations are also central as contingencies for relationships between mental health and religious doubt. For example, research indicates that the relationships between doubt and lower levels of life satisfaction, self-esteem, and optimism are stronger among people with fewer years of education (Ellison, 1991; Krause, 2006a). That is, doubts are particularly important for mental health among people with lower SES. This pattern may be due to the greater importance among those with fewer secular resources of the belief in a perceived divine other that watches over and protects among individuals. For those with lower SES, the sense that one may not be able to rely on this higher power may be particularly distressing. In addition to SES, age also matters. Galek and colleagues (2007) examined the relationship between religious doubt and psychiatric disorders and found that age weakened this relationship for depression and anxiety. Likewise, Krause and colleagues (1999) observed that age weakened the relationship between doubt and depression. These patterns may reflect the fact that older adults are better able to manage doubts because they have had to live with them for a longer period—but alternative explanations should be developed and tested.

Religious doubts are of interest to the sociological study of mental health because, much like beliefs about divine control, they are often influenced by social experiences. For example, repeated engagement in religious activities with others can reinforce a religious world-view and neutralize doubt. Krause and Ellison (2009) demonstrated that increases in religious doubt were less likely to occur among individuals with greater levels of religious attendance. The importance of social experiences for minimizing doubt is underscored by their finding that private prayer activity was unrelated to changes in doubt; instead, it was specifically the social immersion within a group of like-minded others that prevented these doubts from forming. Krause and Ellison also demonstrated that social experiences can provide pathways for doubt, as negative interactions within religious contexts were associated with increases in doubts. Thus, although immersion in a religious group may prevent the formation of doubt, the *quality* of the experience in the group is also crucial.

Several other beliefs have been examined in relation to mental health—although to a lesser extent. For example, forgiveness by God is associated with lower levels of depressed affect and higher levels of life satisfaction net of religious activities and forgiveness by others (Krause & Ellison, 2003). Ingersoll-Dayton, Torges, and Krause (2010) further elaborated on the dynamics underlying these patterns by showing that perceptions of the lack of forgiveness by God contributed to depressive symptoms partly by influencing a lack of self-forgiveness. Perceiving a divine power as forgiving increases forgiveness of one's self, reducing distress caused by one's own wrong doing. Although there has not been substantial sociological theorizing or research on forgiveness by God, the apparent consequences of forgiveness for the experience of distress encourage greater attention to these religious experiences and beliefs.

Afterlife Beliefs

Some scholars argue that a central purpose of religion is to provide answers to troubling questions (Berger, 1967). There may be no more perplexing (or potentially upsetting) question than: "*What happens after we die*?" There has been little systematic research examining the relationship between beliefs about the afterlife and mental health, but there are several theoretical reasons to expect this relationship. First and foremost, afterlife beliefs may provide a sense of reassurance that one will be rewarded in the next life for suffering in this life (Stark & Bainbridge, 1980). Moreover, a teaching that one's death is not "the end of the road" may minimize uncertainty and provide comfort about one's fate. Afterlife beliefs can provide a sense of coherence about the world (Antonovsky, 1987; Berger, 1967; Ellison et al., 2001), thereby fostering a sense of calm and contentment.

Despite the plausibility of these theoretical views, evidence about afterlife beliefs and psychological well-being has been mixed. Ellison and colleagues (2001) found that belief in eternal life was positively associated with life satisfaction, but it was unrelated to levels of psychological distress. Similarly, Ellison and his associates (2009) found that the belief in life after death was related to a higher level of tranquility, but these beliefs were unrelated to anxiety once frequency of attendance was taken into account. However, Flannelly, Koenig, Ellison, Galek and Krause (2006) found that a belief in life after death was related to lower levels of several mental health indicators, including symptoms of anxiety and depression. To the extent that there are mental health benefits of afterlife beliefs, these benefits may be due to the relationship between beliefs and personal resources. For example, Ellison and Burdette (2011) showed that belief in life after death was positively associated with a sense of control net of other forms of religiousness. To explain this relationship, the authors argued that afterlife beliefs were indicative of a relationship with a higher power that provided a vicarious sense of control, although the research reviewed above suggests that the relationship between beliefs about divine control and a sense of personal control may not be this simple. Yet, it is a provocative thesis that deserves attention.

Additional research suggests that, much like with prayer, these contrasting relationships may be due to the substantive content of afterlife beliefs. For example, Flannelly and colleagues (2008) showed that some afterlife beliefs—such as union with God, peace and tranquility, and paradise—were inversely related to of a number of psychiatric disorders, but belief in reincarnation was positively related to mental health problems, as was the belief that the afterlife is "a pale shadowy form of life, hardly life at all." Thus, it is not simply a matter of *believing in* an afterlife that matters to mental health; instead, the particular form of one's belief appears to be more critical for mental health. Believing in a harsh, uncertain, or unforgiving afterlife may be particularly detrimental for well-being, whereas a pleasant, secure, and tranquil view of the afterlife may be most beneficial. Given the purported importance of religion for providing answers about life after death, this area is ripe for further study—especially across social statuses like age. Afterlife beliefs, for example, may be an especially potent influence on mental health among older adults, for whom questions of life after death are likely to be particularly salient.

Religion During Times of Stress

Thus far, our chapter has mainly focused on the ways in which religion, directly or indirectly, influences mental health. However, a stress process perspective suggests that resources may also moderate the association between stressors and mental health (see Chap. 16). One mechanism involves a process often referred to as *buffering*, in which the deleterious effects of stress on mental health are weakened; another entails the *exacerbation* of the effects of stress, in which the deleterious effects of stress are strengthened (Ellison, 1994; Ellison & Henderson, 2011). In addition to these moderating effects, religion may provide coping resources that are particularly important during times of stress. In this section, we explore these possibilities.

Religion and Stress Moderation

As noted above, religious attendance provides a number of social support resources that can become active during times of stress. These resources are likely to be helpful both when problems have practical solutions (e.g., unemployment) and in instances of chronic emotional difficulties. Further, the psychological resources provided by religious involvement may prevent adverse effects of stress on the sense of self. In addition, religious spaces may be seen as being "separate" from the material world and therefore offer a respite from adversities of daily life.

Although these ideas seem plausible, research on the moderating effects of religious attendance has yielded inconclusive results. For example, Bradshaw and Ellison (2010) showed that the frequency of attendance buffered the effects of both objective and subjective economic hardship on distress (also see Strawbridge, Shema, Cohen, Roberts, & Kaplan, 1998). Likewise, Williams and colleagues (Williams, Larson, Buckler, Heckmann, & Pyle, 1991) demonstrated that the frequency of attendance attenuated the positive association health problems and depression. By contrast, others have found no evidence of buffering (Ellison et al., 2001; Schnittker, 2001; Tabak & Mickelson, 2009), and some even suggest that organizational religious activities may exacerbate the depression associated with some stressors (e.g., marital problems, abuse, and caregiving duties) (Strawbridge et al., 1998).

During times of stress, prayer itself may also be a resource (Bade & Cook, 2008). Prayer may help people think about problems within the broader scheme of things, thereby instilling a sense of hope about the future, which, in turn, is aligned with more effective coping (Ai, Peterson, Bolling, & Koenig, 2002; Van Ness & Larson, 2002; Weaver & Flannelly, 2004). Surprisingly, though, research that tests these ideas with population-based data is limited and findings are often mixed. Ellison and colleagues (2001) examined a number of stressors, including health and financial problems, and found that the frequency of prayer did not moderate their association with life satisfaction or distress. In addition, Bradshaw and Ellison (2010) found that prayer did not moderate the association between financial hardship and distress. However, Mirola (1999) found that people who reported that they used prayer to cope with stress experienced a weaker association between what they refer to as "role strain" and depression, although this buffering was limited to women.

Additional aspects of religiosity have also been examined. Strawbridge and colleagues (1998) found that an index of "non-organizational religiosity"—which included the frequency of prayer along with two other items about the salience of religious or spiritual beliefs as a source of meaning—buffered against the distress associated with financial and health problems among older adults. At the same time, however, it is also worth noting that this non-organizational religiosity index exacerbated the association between problems with children and levels of depression. A problem in this research, though, is whether it was prayer or these other aspects that generated the moderating effects—an issue that remains unresolved but worth considering in light of other research which fails to find buffering effects of prayer on its own.

Population-based research that tests the moderating role of religious beliefs is also lacking. However, Krause (2009) demonstrated that general feelings of gratitude buffered the effect of financial strain on changes in depression among older adults, and also that God-mediated control contributed to feelings of gratitude. This suggests that God-mediated control may help prevent the effects of stress by helping to shape reactions to stressors. In an opposite but complementary vein, Krause (2011) demonstrated that religious doubt exacerbated the effects of financial strain on depression in a study of older Mexican-Americans, suggesting that stressors may be *more* detrimental if one senses that there is little support from a higher power when problems occur. Likewise, Bradshaw and colleagues (2010) found that perceiving God as a remote figure exacerbated the relationship between some stressful life events and distress.

Research also has examined whether beliefs about the afterlife moderate the effects of stress. Ellison and colleagues (2001) found that the belief in eternal life buffered the effect of chronic health problems and financial problems on life satisfaction but not on distress. These researchers also found that a strong belief in an eternal life buffered the effect of work-related problems, but only for distress. However, Bradshaw and Ellison (2010) later showed that belief in an afterlife buffers the effects of both objective and subjective economic hardship on distress. Further, Ellison and colleagues (2009) found that belief in an afterlife buffered the effects of poor health and financial decline on anxiety but not tranquility. Collectively, the evidence demonstrates the *potential* for the buffering effects of afterlife beliefs, but the patterns are inconsistent in terms of the types of stressors buffered and the associated outcomes. This inconsistency might be due to the nebulous nature of questions about afterlife beliefs in these surveys; clearer patterns would likely be observed if more detailed measures of afterlife beliefs are used—and theoretical reasons for the different empirical connections to related constructs like "distress," "life satisfaction," and "tranquility" (among others) are critically important too.

Overall, across multiple aspects of religiosity, research examining the moderating effects of various aspects of religiosity shows inconsistent patterns. In some instances, the same aspect of religiosity shows stress buffering, stress exacerbation, or null findings. We suspect that future research that uses more detailed measures of the substance of religiosity may yield more definitive or consistent patterns with respect to moderating effects. This suspicion is based on the broad theme that has emerged in our summary of the research: Findings about the interrelationships among various forms of personal religiousness, stressors, and mental health become clearer when (a) more specific religious measures are used, and (b) there is a better conceptual fit between religious measures, specific stressors, and mental health outcome(s). For example, religious attendance may be useful for specific stressors when attendance is performed in a congregational environment with a strong emphasis on positive social interactions and lower levels of negative interactions. Similarly, prayer that is demanding (of a perceived divine other) in the face of stressors and based on instant gratification may be less ameliorating or even exacerbating than prayer which is based more on managing emotional reactions to a stressor. By the same token, the belief in a close and supportive higher power may be helpful during times of stress, but the belief in a punishing or distant divine entity may strengthen feelings of the randomness and cruelness of life or the sense of personal powerlessness when problems do arise.

Another potential reason for these equivocal moderating effects may be due to social status differences. Subgroup differences in the cultivation and prominence of religion may lead to differences in how religion is employed during times of stress. For example, Bierman (2006) argued that the prominence of the Black church in resisting discrimination in the USA might increase the potency of religiosity to buffer the mental health effects of discrimination, and finds that religious attendance buffers the association between discrimination and psychological distress among African-Americans but not Whites. In terms of additional statuses, research has consistently shown that religion tends to play a stronger role in the lives of women than men, and it is, therefore, not surprising that Wang and Patten (2002) found that praying and religious comfort seeking buffered the effects of financial problems on major depression for women but not men. This research suggests that studies of how beliefs buffer the effects of stress should also examine how key social statuses may create additional contingencies in these associations.

Religious Coping

In addition to studies of the stress-moderating role of religious practices and beliefs, other work focuses on approaches that individuals use in stressful conditions. Pargament and colleagues have generated much of the research on religious coping styles (Pargament, 1997; Pargament et al., 1990, 1988; Pargament, Koenig, & Perez, 2000; Pargament, Smith, Koenig & Perez, 1998). Early work distinguishes three approaches: (1) *collaborative*, in which individuals form partnerships with a perceived divine other; (2) *deferential*, in which individuals cede control and responsibility over problems to a divine other; and (3) *self-directed*, in which individuals attempt to resolve problems without religion (Pargament et al., 1988). Some evidence suggests that collaborative approaches are quite common and tend to be associated with desirable psychosocial outcomes, whereas the self-directed and (particularly) deferential approaches are less widespread and yield negative outcomes (Pargament et al., 1990, 1988). The inclinations of some persons for deferential religious coping—and the negative consequences—are consistent with critiques of religion as a force that can undermine self-esteem, mastery, and proactive problem solving (Branden, 1983; Ellis, 1962, 1983; Freud, 1928). These findings suggest that some elements of these critiques might be credible, especially the excessive dependency on God, but they also might represent biased or incomplete understandings of the role of religion in coping processes.

More recent work by Pargament and associates (Pargament, 1997; Pargament et al., 2000) reveals even more complex methods of religious coping. Several of these key methods are compatible with broader theoretical perspectives on coping, such as the framework developed by Lazarus and Folkman (1984) and their associates (see Folkman & Moskowitz, 2004), which involve a two-stage appraisal process. In the primary appraisal phase, individuals assess the nature of a potentially stressful condition and seek to understand its implications for the self. In the secondary appraisal phase, individuals evaluate the resources available to resolve the problem or manage its emotional impact. Pargament and colleagues (2000) describe ways that religion might be germane to the primary appraisal process. For example, negative events can be appraised in less threatening terms, as opportunities for personal or spiritual growth or as part of a divine plan; or they can be evaluated in highly negative terms, as expressions of divine disfavor, punishment, or indifference. Religion also may be important in the secondary appraisal process, as individuals evaluate whether there is assistance available from members of their religious communities or from a higher power (Pieper & van Uden, 2005).

It is difficult to gauge the stress buffering or exacerbating role of religious coping in many studies because researchers tend to limit their samples of persons experiencing stress. In addition, most studies that employ the approach and measures developed by Pargament and his associates have used relatively small samples of special populations, such as college students, sexual abuse survivors, medical patients, and victims of natural disasters or terrorism (Gall, 2006; Pargament et al., 1998; Tix & Frazier, 1998), thus limiting generalizability. One partial exception is provided by Webb and colleagues (Webb et al., 2010), who used a random sample of a larger study but focused only on Seventh-day Adventists, and found that certain types of religious coping (e.g., collaborative coping and seeking comfort from God) mitigated the link between recent divorce and depressive symptoms, while other types (e.g., punishing God reappraisals) strengthened this adverse pattern. Application of measures of these different forms of religious coping in most general surveys of the population is constrained, though, because the length of the instrument (over 100 items). This precludes their use on social surveys, which are typically intended to study a broad number of different topics and have time and cost constraints.

One exception to this pattern is that a selected group of religious coping items were included on the 1998 General Social Survey (GSS), a national probability survey of adults in the USA. However, these items permitted only distinctions between positive versus negative religious coping, rather than the more complex, multidimensional approach proposed by Pargament and his colleagues (2000). Positive religious coping is “an expression of a sense of spirituality, a secure relationship with God, a belief there is meaning to be found in life, and a sense of spiritual connectedness with others” (Pargament et al., 1998, p. 712). Negative religious coping generally embodies adverse or contentious reactions to stress including “an expression of a less secure relationship with God, a tenuous and ominous view of the world, and a religious struggle in the search for significance” (Pargament et al., 1998, p. 712). Using these data, Nooney and Woodrum (2005) combined the positive and negative items into one measure in which higher values indicated more positive and less negative religious coping, and found an inverse association with distress. Using the same data, Ellison and Lee (2010) found that negative religious coping was a predictor of greater distress, net of covariates and positive and negative facets of religiousness and spirituality.

Single-item indicators of the frequency of spiritual help seeking in times of trouble have been used in population-based research. However, studies utilizing these data yield divergent findings. Some studies show no relationship with distress, but others show that spiritual help seeking is associated with *more* distress (Bierman, 2006; Schnittker, 2001). This is surprising given the previously reviewed research suggesting benefits to religious coping. These discrepancies may be due to the limitations of single-item measures. Single-item measures combine the effects of positive and negative religious coping. Negative and positive coping may, therefore, cancel each other out in the single-item measures, or the effects of negative religious coping may be stronger than those of positive coping, producing a deleterious between distress and single-item measures of religious coping.

Although many conceptual and empirical developments in the religious coping literature have emerged from psychology, a sociological perspective can enhance insights into these issues. Indeed, multiple studies indicate that social experiences shape religious coping responses. For example, Ferraro and Kelley-Moore (2001) demonstrated that attendance at religious services is positively related to religious comfort seeking, mainly among the religiously affiliated. Other research indicates that the link between attendance and positive styles of religious coping is partly explained by the social and spiritual support that attendance engenders from one's congregation (Krause Ellison, Shaw, Marcum, & Boardman, 2001; Nooney & Woodrum, 2005). Krause (2010) links involvement in a religious group to religious coping by showing that the cohesiveness of a congregation enhances the degree of support provided by church members, which in turn leads to increased religious coping over time. As a key social status, race is once again a prominent factor in his study: Older Whites tend to worship in less cohesive congregations than their African-American counterparts, and thereby attain less reinforcement for their religious coping efforts. Pargament and colleagues (Pargament, Tarakeshwar, Ellison, & Wulff, 2001) found that religious role salience influences the strength of the association between positive and negative forms of religious coping and positive and negative affect, respectively, for nationwide sample of members of a mainline Protestant denomination. These patterns were strongest among clergy, followed by church elders, and weakest among rank-and-file church members. This research demonstrates how the social environment in which religion is practiced influences the nature of religious coping and its potential mental health consequences.

Future Directions

Current research emphasizes the benefits of religion for mental health, yet the consequences are generally contingent on *how* people are religious. Do people gain resources from attendance, or are they immersed in an unsupportive congregation? When people pray to God, do they tend to pray to one who is punishing or loving…or a blend of both? Do people believe in a personal God who regularly intervenes in everyday affairs, especially the stressful ones? These distinctions and others create differences in how religious involvement may influence mental health. Ultimately, these variegated relationships should not be ignored or oversimplified in research that describes the link between religion and mental health. These variations raise the important question of how different dimensions of religion come together as a "package." Correlations among different indicators of personal religiousness, such as attendance, prayer, and religious beliefs, suggest that these different aspects do not exist as discrete phenomenon, but rather as parts of a *religious role* (Schieman, 2008). Some researchers acknowledge this possibility by combining aspects of religiosity into an overall measure. Sometimes these indices blend different aspects of religiosity—such as public or private religious involvement—together with beliefs. However, this approach thwarts comparisons across studies. Moreover, composite indices might obscure multiple religious roles. Some people may have high levels of personal belief but low public involvement; for others, the reverse may be true. Researchers who atomize the religious experience by examining independent effects of multiple dimensions, or ignore distinctions in different dimensions by creating an index, may overlook how religion is practiced in everyday life—as a complex of different combinations of religious beliefs and behaviors. Instead, we might consider whether these aspects are mutually reinforcing or counteract one another. For instance, do the frequency of prayer and attendance combine in their effects on mental health? In this case, we might hypothesize that more frequent prayer strengthens the negative association between attendance and distress. At the same time, it may be the case that prayer in the absence of attendance is disintegrative, thereby helping to explain the positive association that some researchers have found between frequent prayer and distress. Similarly, negative interaction within a congregation may dampen any beneficial effects of attendance. Analytically, these hypotheses suggest interaction or multiplicative effects among various indicators of religiousness—possibilities that are surprisingly rare in the literature.

Another fruitful research direction involves *inconsistencies* in the religious role as potential stressors that undermine well-being. One hypothesis is that individuals who *express* a strong commitment to religion but *exhibit* low actual involvement may experience dissonance or feelings of guilt, leading to greater distress. Somewhat along these lines, Bierman (2010) suggests that interpersonal experiences that conflict with strongly held religious values may create anger or other forms of distress. The concept of "stress valuation" is central here—that is, events or experiences may become particularly stressful when they clash with strongly held values. Religion is often an essential base of values and ethics, one that can be in conflict with the secular world. For the religious individual immersed the secular world, there is fraught potential for a host of conflicts. Researchers might also evaluate whether religious ideals and involvement lead to more negative interpersonal and intrapersonal experiences, and how religious individuals negotiate the secular world to minimize these types of conflicts.

Although this chapter examined the role of religion in shaping differential vulnerability to stress, it is also important to consider how religious practices and beliefs may influence *differential exposure* to stressful events and conditions (Ellison, 1994; Ellison & Henderson, 2011). Some stressors are partly shaped by lifestyle choices and individual behaviors. Religious traditions and institutions often attempt to guide personal conduct in ways that may alter members' exposure to these problems via: (a) moral messages, (b) positive reinforcement, (c) the threat of social sanctions against deviance, (d) internalization of religious norms and feelings of discomfort at the prospect of violating them, and (e) the emulation of religious role models who exemplify morally acceptable lifestyles (for specific examples, see Ellison et al., 2010; Hill, Burdette, Ellison, & Musick, 2006; King, 2010). Especially in terms of health behaviors (Hill et al., 2006), religion may structure lifestyles in such a way that helps individuals avoid experiences that can have deleterious consequences for psychological well-being.

A potentially productive line of future work concerns the development of a cohesive conceptual and theoretical framework for understanding the moderating role of various aspects of religion. Existing research has focused on the direct and indirect effects of different forms of religious involvement on mental health, but if some aspects of religion are "resources," then empirical evidence should consistently document that they actually do attenuate any observed positive associations between stressors and distress. Although some studies have examined moderation, the approach has been eclectic with regard to the types of stressors and dimensions of religiosity studied. More systematic attention should be given to the identification of patterns by which specific aspects of religiosity do or do not moderate particular types of stressors. It is likely that some aspects are more salient in the face of some kinds of stressors than others. Attention to these patterns will be an important step in understanding when and why personal religiousness is most likely to moderate the effects of stress. In addition, although research has sometimes shown stress-reducing forms of moderation, in other instances, studies find exacerbating forms of moderation. Making sense of these contrasting effects requires the future development of a comprehensive and integrated theoretical framework.

The elucidation of the direct and moderating effects of social and economic statuses also constitutes an area for theoretical and empirical advancements. The extent to which religiosity moderates the effects of stressors often varies for different social groups. In particular, religion may be an especially important resource for people with less access to secular resources. The possibility that religion functions differently among various subgroups of the population should be explored further because it may account for discrepant findings, including statistically insignificant overall effects of religiosity on mental health, or seemingly counterintuitive results. Greater attention to the dynamics of inequality in which religion is practiced and experienced is likely to elucidate these structural contingencies. In addition, nonlinear relationships between various forms of religiosity and mental health are possible. The benefits of religion for mental health may diminish or reverse at particularly high levels, or there could be a "tipping point" of involvement or commitment at which these effects become potent. Although nonlinear patterns have received some research attention (McFarland, 2010; Schnittker, 2001; Sternthal et al, 2010), more systematic theoretical and analytical consideration of these possibilities is warranted, including whether or not such patterns are more likely among some subgroups in the population.

Cross-cultural contingencies in the effects of various dimensions of religiosity represent another area that deserves greater attention. Most existing work has been in a North American context. However, research in nations where Christianity is not the predominant religion suggests that religiosity may have different relationships with mental health. For example, research from China shows a negative relationship between religious activity and life satisfaction (Brown & Tierney, 2009). In addition, Liu and colleagues (Liu, Schieman, & Jang, 2011) find that supernatural beliefs and activities predicted more distress in Taiwan, attendance was unrelated to distress, and prayer was linked with less distress (also see Yeager et al., 2006). In addition, Liu (2009) showed that beliefs in God and karma and engaging in prayer were negatively related to mastery, although attendance was unrelated to mastery. However, more population-based surveys that include better measures of mental health and the sense of personal mastery are needed in this area.

Differences between Western and non-Western nations may be due to the larger cultural milieu in which religion is practiced and experienced. For example, Elliot and Hayward (2009) found that the relationship between religious attendance and life satisfaction varied by the level of government regulation within a country, and that in highly regulated countries, this relationship might be negative. Along the same lines, Eichhorn (2011) found that societal levels of religiosity strengthen the relationship between religiosity and life satisfaction (see also Snoep, 2008). In addition, several studies cite the relevance of religious homogeneity. Ellison and colleagues (Ellison, Burr, & McCall, 1997) found that religious homogeneity was inversely associated with suicide rates. Another study reveals that the inverse association between religiousness and anomie was stronger for persons in religiously homogeneous social networks (Brashears, 2010). Thus, the assumption that religion is beneficial to mental health across cultures and religions may not be accurate. The levels of religiosity and social control within a given cultural context, the predominant religion, the homogeneity, and the "fit" between individual and contextual religious belief systems may be important for shaping the relationship between religion and mental health.

Finally, several lingering methodological issues require more attention. First, questions about causal direction persist. Studies in this area (including our own) have often relied upon cross-sectional data, which is understandable due to the dearth of measures of religiousness in most large-scale longitudinal studies. However, such data are needed to adequately address causal influences of religion on mental health. Second, although most studies attempt to control for relevant background factors and other potentially confounding influences, additional challenges remain that might bias inferences about the connections between religion and mental health (e.g., selection processes or unmeasured variables such as personality). Third, researchers have suggested genetic influences on mental health. Evidence from twin sibling data has shown that facets of religiousness are partly heritable; however, the extent of apparent genetic influences on religion varies according to religious dimension and age or life cycle stage (Bradshaw & Ellison, 2008). Studies also find genetic influences on covariates of religion and mental health (Schnittker, 2010). To date, however, few studies of religion and mental health have adopted a behavior-genetic perspective (Kendler, Gardner, & Prescott, 1997). Therefore, research should attend to passive, active, and evocative variants of gene-environment correlation, as well as to possible gene-environment interaction, to clarify the role of religion in mental health outcomes (Scarr & McCartney, 1983; Shanahan & Hofer, 2005).

In summary, various aspects of religious involvement—particularly the frequency of attendance at religious services—seem to have beneficial relationships with mental health, yet religion also contains the potential to harm mental health. However, people who are engaged in religiousness tend to experience it as largely positive, with a small minority reporting the experience of a "dark side" of religion at any given point in time. There is undoubtedly a complex, multivalent relationship between religion and mental health, but the overall association seems to be beneficial. The complex interplay among stressors, personal religiousness, resources, and mental health—and, ultimately, efforts to cope with adversities—will likely remain among one of the major themes in this area of research. We fully anticipate that efforts to integrate theoretical and empirical insights from both the sociological study of religion and the sociological study of mental health will generate debates and discoveries that inform both subfields. We have sought to chart some of the potential pathways to guide these advancements.

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Chapter 23
Neighborhood Context and Mental Health

Terrence D. Hill and David Maimon

Abbreviations

AHEAD	Study of Assets and Health Dynamics Among the Oldest Old
APOE	Apolipoprotein E
CCH	Community Crime, and Health
DRD2	Dopamine receptor D2
HLM	Hierarchical linear models
5-HTT	5-Hydroxytryptamine transporter

Although studies of the social causes of mental health tend to emphasize social characteristics measured at the level of the individual (e.g., personal socioeconomic standing), research also suggests that mental health may vary according to social characteristics measured at the level of the neighborhood. More than 70 years ago, Faris and Dunham (1939) examined the spatial distribution of mental disorders in Chicago neighborhoods. Their analysis of data collected from over 34,000 psychiatric patients showed that "…high insanity rates appear to cluster in the deteriorated regions in and surrounding the center of the city…" (Faris & Dunham, 1939, p. 35). Using the urban ecological approach developed by Park (1915) and Burgess (1925), Faris and Dunham explained that the conditions of life in socially disorganized neighborhoods could favor the development of mental disorders by promoting a sense of extreme social isolation and by exposing residents to environments that are conducive to substance abuse.

The pioneering work of Faris and Dunham (1939) and numerous subsequent studies show us that (a) neighborhoods are socially patterned, such that the most disadvantaged groups in society tend to live in disadvantaged neighborhoods, (b) mental health varies systematically across neighborhoods,

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T.D. Hill (✉)
Department of Sociology, Florida State University, 526 Bellamy Building,
P.O. Box 3062270, Tallahassee, FL 32306, USA
e-mail: thill@fsu.edu

D. Maimon
Department of Criminology and Criminal Justice,
University of Maryland, College Park, MD, USA

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with the most disadvantaged neighborhoods having the greatest burden of psychological distress, and (c) neighborhood context matters for mental health, even when researchers account for the fact that socially disadvantaged individuals tend to live in disadvantaged neighborhoods. Taken together, these patterns are of sociological interest because they emphasize the social origins of mental health. Neighborhoods are socially structured conditions that are external to individuals. These contextual effects cannot be explained by the dominant psychiatric model that locates the causes of psychological distress within individuals.

In this chapter, we provide a critical overview of research concerning the association between neighborhood context and mental health. Along the way, we consider (a) the measurement and analysis of neighborhood context, (b) the nature and extent of the association between neighborhood context and mental health, (c) explanations for why neighborhood context might contribute to mental health, and (d) whether certain groups of people are more or less vulnerable to the psychological consequences of neighborhood context. Because relevant work has reemerged and matured over the past two decades, we emphasize studies conducted during this period. Although we intend for this research collection to be representative of the field, we do not consider it to be exhaustive. We conclude by highlighting several important avenues for future research.

The Measurement and Analysis of Neighborhood Context

Neighborhoods are distinct geographical areas within cities and towns where groups of people live and interact with one another. Neighborhoods are defined by particular boundaries and conditions. Boundaries are established informally by history and landmarks, the judgments and movements of residents and nonresidents, and formally by administrative classifications like ZIP codes and census tracts. Conditions refer to unique physical, social, cultural, economic, and political environments.

In practice, neighborhood context is measured with objective and subjective indicators. Objective indicators include measures of neighborhood structure, neighborhood social organization, and neighborhood disorder. These indicators are objective in the sense that they are assessed independently of residents' personal attributes (e.g., census characteristics). Subjective indicators measure how residents perceive or experience the residential environment. These indicators are subjective in the sense that they draw from information collected from individual residents (e.g., resident reports of noise in the neighborhood). In this section, we describe common indicators of neighborhood context and established methods of analysis.

Objective Indicators of Neighborhood Context

Neighborhood Structure

Neighborhood structure refers to the demographic attributes of neighborhoods and is primarily indicated by neighborhood-level socioeconomic disadvantage, racial and ethnic composition, and residential instability. Demographic attributes of neighborhoods are calculated by aggregating the attributes of individual residents within neighborhoods. Having said this, neighborhood-level characteristics (e.g., the neighborhood unemployment rate) are conceptually distinct from individual-level characteristics (e.g., the employment status of a particular resident). For example, a particular resident can be unemployed in a neighborhood with a low unemployment rate. It is easy to imagine how personal employment status might be related to mental health. Explanations for the psychological consequences of living in a neighborhood with high or low unemployment are less evident.

Neighborhood socioeconomic disadvantage is defined as the concentration of lower socioeconomic status individuals within neighborhoods (Krieger et al., 2003). Disadvantaged neighborhoods are poor communities with restricted access to public resources and municipal services and limited opportunities for status attainment (Robert, 1999). Common indicators of neighborhood socioeconomic disadvantage include the percentage of residents with less than a high school degree, the unemployment rate, median household income, and the percentage of residents living below the poverty line.

Racial and ethnic composition refers to the concentration of race and ethnic minority groups within neighborhoods (Acevedo-Garcia & Lochner, 2003). The concentration of race and ethnic minorities is associated with distinct sociocultural environments and neighborhood socioeconomic disadvantage (Acevedo-Garcia & Lochner, 2003; Kwate, 2008; Massey, 2004). Racial and ethnic composition is typically indicated by the percentage of residents classified as black, Hispanic, minority, and immigrant.

Residential instability is defined as the rate of turnover or change in the neighborhood population (Ross, Reynolds, & Geis, 2000). When a neighborhood is characterized by high residential instability, residents have fewer opportunities to develop and maintain social ties with other residents and, as a consequence, community organization and informal social control are undermined (Sampson, Raudenbush, & Earls, 1997; Shaw & McKay, 1942). Common indicators of residential instability include the percentage of residents living in apartment buildings, the percentage of owner-occupied dwellings, the percentage of current residents who were raised in the neighborhood, and the percentage of residents living less than 5 years in the neighborhood.

Neighborhood Social Organization

Neighborhood social organization refers to the density of social ties and the level of collective efficacy. The density of social ties is defined by the number of social relationships and the frequency of social interaction in the neighborhood (Mair, Diez Roux, & Morenoff, 2010; Sampson & Groves, 1989). Neighborhood social ties can be indicated by the average number of friends and relatives that residents have living in the neighborhood and how often neighbors talk to and visit each other.

Collective efficacy refers to the degree of neighborhood cohesion and the willingness of residents to exercise informal social control (Sampson et al., 1997). Dense social ties, local organizations, and voluntary associations promote neighborhood cohesion, and informal social control is most likely performed under these conditions. Neighborhood cohesion is indicated by the degree to which residents get along with each other, trust and help each other, and share common values. Informal social control is indicated by the willingness of residents to intervene under various conditions of crisis, incivility, and crime (e.g., keeping the local fire station open, children showing disrespect to adults, and someone being beaten or threatened).

We would like to emphasize that measures of neighborhood social organization characterize neighborhoods, not individual residents. Indicators of neighborhood social organization are typically calculated in three steps. First, individual residents are asked about their social ties or perceptions of collective efficacy. Second, these responses are indexed or averaged for each resident. Finally, the average scores (for each resident) are aggregated or averaged across residents living in the same neighborhood or census tract. Through this method of "ecometric" assessment, individual-level measures are aggregated to the neighborhood-level (Raudenbush, 2003).

Neighborhood Disorder

Neighborhood disorder refers to a range of objective social and physical conditions that indicate the breakdown of social control in the community (Raudenbush, 2003; Ross & Mirowsky, 1999). Signs of social disorder include people hanging around on the streets, open alcohol consumption and drug use, prostitution, and other criminal activity. Indicators of physical disorder include the presence of abandoned buildings, vandalism, graffiti, garbage, and ambient noise. These objective conditions are measured independently of neighborhood residents through, for example, systematic social observations. Systematic social observations involve researchers traveling through neighborhoods, filming and recording social activities and physical features.

Subjective Indicators of Neighborhood Context

Neighborhood Experience

The neighborhood experience is defined by the perceptions and personal encounters of residents within neighborhoods (Aneshensel & Sucoff, 1996; Ross & Mirowsky, 1999). Measurements of the neighborhood experience are direct assessments of the human experience. Common indicators emphasize personal experiences within the neighborhood (e.g., personal victimization and relationships with neighbors) and subjective assessments or ratings of the neighborhood environment (e.g., perceptions of neighborhood disorder and collective efficacy). Because objective indicators of collective efficacy and neighborhood disorder are conceptually distinct from individual perceptions and experiences, it is possible to estimate associations between objective and subjective indicators. For example, are residents of neighborhoods with higher crime rates (an objective indicator of social disorder) more likely to report that crime is a problem in the neighborhood (a subjective perception of the objective condition) than residents of neighborhoods with less crime?

Analyzing Indicators of Neighborhood Context

There are four primary methodological approaches to analyzing objective and subjective indicators of neighborhood context, including ecological models, individual-level models, contextual models, and multilevel models. Ecological models use spatial analytic and regression techniques to estimate associations between indicators measured exclusively at the level of the neighborhood (e.g., Do neighborhoods with higher poverty rates have higher rates of major depression?). Individual-level models use regression techniques to estimate associations between indicators measured exclusively at the level of the individual (e.g., Do individuals who perceive higher levels of neighborhood disorder also tend to report higher levels of anxiety?).

Contextual models use conventional regression techniques to estimate associations between neighborhood characteristics measured at the neighborhood- and individual-level and mental health outcomes measured at the individual-level (e.g., Do individuals who live in neighborhoods characterized by residential instability tend to report higher levels of psychological distress?). Methodologically, contextual designs link neighborhood-level data (e.g., census estimates) to individual-level data derived from a single sampling unit (e.g., a national sample of United States residents).

Like contextual models, multilevel models estimate associations between neighborhood characteristics measured at the neighborhood- and individual-level and mental health outcomes measured at the individual-level. Unlike contextual designs, multilevel models require at least two formal sampling units (e.g., a sample of individuals nested within a sample of neighborhoods) and special software packages (e.g., HLM). Multilevel models are also unique because they distinguish variation in mental health that occurs between and within neighborhoods. If mental health varies significantly between neighborhoods, multilevel models assess the degree to which this variation is due to characteristics of neighborhoods and individuals, respectively. Compared with contextual models, multilevel models allow for more accurate estimates of standard errors and cross-level interactions between neighborhood-level and individual-level characteristics (Raudenbush & Bryk, 2002). To be fair, all approaches have unique methodological strengths and limitations; however, such a discussion is beyond the scope of this chapter.

Neighborhood Context and Mental Health Status

Studies show that neighborhood context is widely associated with mental health status. In this section, we focus on the most commonly studied indicators of mental health, including depression, anxiety, and psychological distress. We also reference recent developments in the study of neighborhood context and cognitive functioning. For each of these mental health outcomes, we summarize the overall patterns of previous research and highlight an especially influential study.

Depression

Most studies of neighborhood context and mental health focus on depressive symptoms. Research in this area demonstrates that residents of disadvantaged neighborhoods tend to exhibit higher levels of depression than residents of more advantaged neighborhoods. This basic pattern is consistent across indicators of neighborhood structure (Galea et al., 2007; Kim, 2010; Ross, 2000; Wight, Ko, & Aneshensel, 2011; but see Aneshensel et al., 2007; Lee, 2009; Matheson et al., 2006; Silver, Mulvey, & Swanson, 2002 for some null findings), neighborhood social organization (Mair, Diez Roux, Osypuk, et al., 2010; but see Mair, Diez Roux, & Morenoff, 2010 for some null findings), neighborhood disorder (Downey & Van Willigen, 2005; Echeverría, Diez-Roux, Shea, Borrell, & Jackson, 2008; Mair, Diez Roux, Osypuk, et al., 2010; but see Mair, Diez Roux, & Morenoff, 2010 for some null findings), and neighborhood experience (Aneshensel & Sucoff, 1996; Bierman, 2009; Clark et al., 2007; Downey & Van Willigen, 2005; Echeverría et al., 2008; Kim, 2010; Latkin & Curry, 2003; Ross, 2000; Ross & Mirowsky, 2009; Schieman & Meersman, 2004; Stafford, McMunn, & De Vogli, 2011; but see Gary, Stark, & LaVeist, 2007 for some null findings).

Ross (2000) provides an excellent study of neighborhood structure and depression. Her analysis of data from the Community, Crime, and Health (CCH) survey shows that adults who live in disadvantaged neighborhoods (indicated by the percentage of households below the federal poverty line and female-headed households with children) tend to exhibit higher levels of depression than residents of other neighborhoods. This association persisted with comprehensive adjustments for age, gender, race/ethnicity, education, employment status, household income, marital status, the presence of children, household crowding, and urban residence. Almost any association between neighborhood context and mental health could simply reflect the fact that disadvantaged individuals often live in disadvantaged neighborhoods (i.e., the composition of the neighborhood). These findings clearly suggest that neighborhood context matters for mental health over and above a range of individual attributes.

Anxiety

Consistent with studies of depression, research suggests that residents of disadvantaged neighborhoods tend to exhibit higher levels of anxiety. This pattern holds across two indicators of neighborhood context, including neighborhood structure (Ross et al., 2000; but see Lee, 2009 for some null findings) and neighborhood experience (Aneshensel & Sucoff, 1996; Clark et al., 2007; Ross & Mirowsky, 2009; Schieman & Meersman, 2004; but see Gary et al., 2007 for some null findings).

Aneshensel and Sucoff (1996) sparked a great deal of contemporary research in the area of neighborhood context and mental health. Using data collected from adolescents in Los Angeles County, Aneshensel and Sucoff demonstrate that youths who perceive high levels of "ambient hazards" (signs of neighborhood disorder indicated by appraisals of, e.g., violence, crime, and the physical appearance of the neighborhood) tend to report higher levels of anxiety than youths who perceive fewer problems in the environment. These patterns held with controls for age, gender, race/ethnicity, family structure, living arrangements, perceptions of neighborhood social cohesion, neighborhood stability, and the combination of neighborhood socioeconomic status and race/ethnic composition. This analysis is especially influential because it is among the first to consider the psychological consequences of the "subjective neighborhood."

Psychological Distress

Given the patterns for depression and anxiety, it should come as no surprise that residents of disadvantaged neighborhoods also tend to exhibit higher levels of overall psychological distress. This general trend is consistent across three indicators of neighborhood context, including neighborhood structure (Ross et al., 2000; but see Stockdale et al., 2007 for some null findings), neighborhood disorder (Cutrona, Russell, Hessling, Brown, & Murry, 2000), and neighborhood experience (Hill, Burdette, & Hale, 2009; Stockdale et al., 2007; but see Steptoe & Feldman, 2001 for some null findings).

Ross et al. (2000) present an intricate analysis of the psychological consequences of neighborhood stability. Their analysis of CCH data shows that higher levels of residential stability (indicated by the percentage of people who lived in the respondent's census tract over a defined 5-year period) tend to favor lower levels of psychological distress in lower-poverty neighborhoods and higher levels of distress in higher-poverty neighborhoods. These results persisted with adjustments for age, gender, race/ethnicity, education, employment status, household income, home ownership, marital status, the number of children, household crowding, urban residence, and personal social ties with neighbors. The truly distinctive feature of this study is the interaction between unique dimensions of neighborhood structure (i.e., the effect of residential stability across levels of neighborhood socioeconomic disadvantage).

Cognitive Functioning

Cognitive functioning is captured by basic indicators of mental status, including, for example, orientation, attention, memory, language, and reasoning. Because cognitive functioning is a recent extension of research on neighborhood context and mental health, very few relevant studies have been conducted. Nevertheless, research shows that residents of disadvantaged neighborhoods tend to exhibit poorer cognitive functioning and faster rates of cognitive decline. To this point, studies have focused exclusively on the effects of neighborhood structure (McCulloch & Joshi, 2001; Sampson, Sharkey, &

Raudenbush, 2008; Sheffield & Peek, 2009; but see Aneshensel, Ko, Chodosh, & Wight, 2011; Wight et al., 2006 for some null findings).

Wight et al. (2006) provide a comprehensive analysis of the link between neighborhood structure and cognitive health. Using data from the Study of Assets and Health Dynamics Among the Oldest Old (AHEAD), these researchers find that individuals who live in neighborhoods characterized by low levels of education (indicated by the percentage of residents aged 25 and older without a high school degree) tend to exhibit lower levels of cognitive status (indicated by measures of memory, knowledge, language, and orientation). Interestingly, this study also indicates that the cognitive consequences of living in low-education areas can be offset by higher levels of personal education. These patterns held with an impressive array of adjustments for age, gender, race/ethnicity, marital status, household income, household wealth, a host of mental and physical health indicators, and the median household income of the neighborhood. This analysis is unique because it considers the interaction between neighborhood- and individual-level characteristics (i.e., the effect of neighborhood socioeconomic disadvantage across levels of individual socioeconomic status).

Mediators of Neighborhood Context

Several significant publications have considered why neighborhood context might be associated with mental health status (e.g., Aneshensel, 2010; Aneshensel & Sucoff, 1996; Cutrona, Wallace, & Wesner, 2006; Fitzpatrick & LaGory, 2010; Massey, 2004; Mirowsky & Ross, 2003; Ross, 2000; Ross & Mirowsky, 2009; Wandersman & Nation, 1998). Drawing on this body of work and relevant empirical evidence, we develop a theoretical model (Fig. 23.1) that links neighborhood-level factors and mental health through the direct experience of neighborhood conditions and several classes of secondary mechanisms.

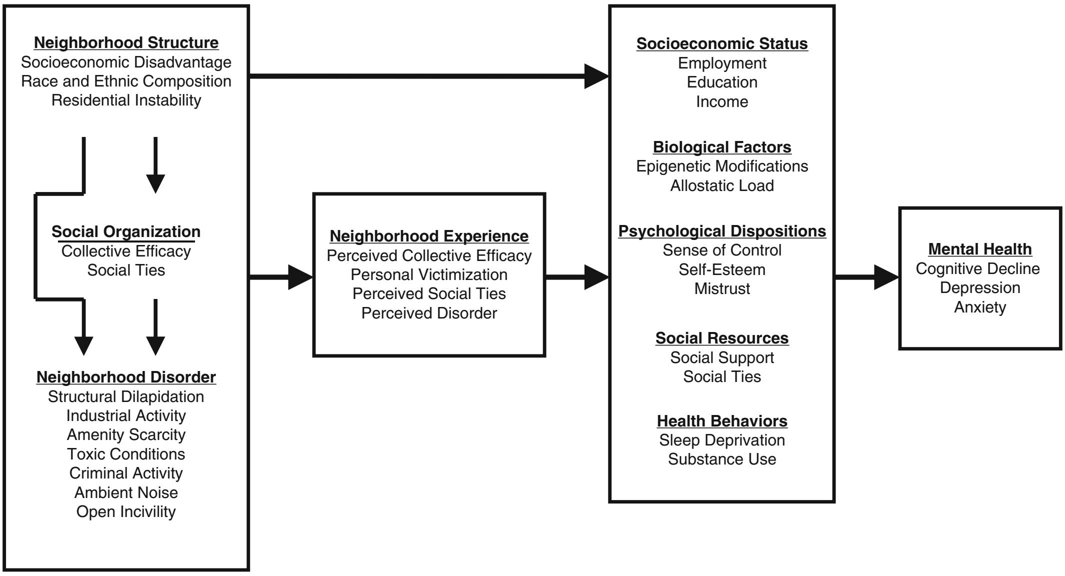

Fig. 23.1 Mediators linking neighborhood context and mental health

Neighborhood-Level Processes

Our theoretical model begins with neighborhood-level processes. According to Fig. 23.1, neighborhood structural disadvantage is related to neighborhood social organization and neighborhood disorder. In their classic formulation, Shaw and McKay (1942) argue that neighborhood-level socioeconomic disadvantage, ethnic heterogeneity, and residential instability are key structural factors that contribute to social disorganization. They explain that disadvantaged communities often lack the material, social, and institutional resources needed to build consensus or solidarity. Sampson et al. (1997) define social disorganization as the inability of neighborhood residents to realize common values and to develop and maintain informal social controls. Wilson (1987, 1996) also notes that social disorganization can undermine the ability of communities to sustain important social institutions (e.g., schools, churches, businesses, and community organizations).

Neighborhoods with high levels of socioeconomic disadvantage, black residential segregation, and residential instability contribute to physical and social disorder in various ways (Massey & Denton, 1989, 1993; Sampson et al., 1997). Neighborhood socioeconomic disadvantage is directly associated with structural dilapidation and amenity scarcity. Massey & Denton (1989, 1993) describe an indirect process by which extreme residential segregation and neighborhood poverty could contribute to social disorder and physical decay by isolating residents from mainstream society. Neighborhood structural disadvantage could also lead to social disorder by limiting the willingness of residents to exercise informal social control. For example, research shows that the effects of residential instability and concentrated disadvantage (a mixture of socioeconomic disadvantage and race composition) on violent crime are largely explained by lower levels of collective efficacy (Sampson et al.).

The Neighborhood Experience

The second stage of our theoretical model (Fig. 23.1) suggests that the experience of neighborhood conditions is the primary link between neighborhood-level processes and mental health status. Over eight decades ago, Thomas and Thomas (1928) noted that when situations are defined as real, they are real in their consequences. We argue, by extension, that residents experience the neighborhood as more or less stressful as neighborhood conditions are defined as more or less noxious or threatening. To be clear, our perspective suggests that, with few exceptions, features of the neighborhood environment must be directly perceived or experienced to be relevant to mental health status. This assertion rests on the following assumptions: (a) stress is the primary explanation for the association between neighborhood context and mental health (Cutrona et al., 2006; Mirowsky & Ross, 2003), and (b) perception is a fundamental condition of any stress-related response (McEwen & Lasley, 2002).

Research suggests that disadvantaged neighborhoods undermine mental health by exposing residents to conditions that they define as stressful (Aneshensel & Sucoff, 1996; Ross, 2000; Wandersman & Nation, 1998). Residence in neighborhoods characterized by socioeconomic disadvantage, the concentration of racial and ethnic minorities, residential instability, weak social ties, low collective efficacy, and visible signs of disorder clearly increases the probability of perceiving or experiencing disadvantage and danger in the environment (Aneshensel & Sucoff, 1996; Raudenbush, 2003; Ross et al., 2000; Schieman, 2009; Schieman & Pearlin, 2006). The important question is whether these perceptions and experiences link neighborhood-level processes and mental health status. Consistent with our model, Ross (2000) finds that the positive association between neighborhood disadvantage (indicated by the percentage of households below the federal poverty line and female-headed households with children) and depression is entirely mediated or explained by increased perceptions of neighborhood disorder.

Secondary Mechanisms

If the neighborhood experience is the primary link between neighborhood-level processes and mental health, what might account for the psychological consequences of the neighborhood experience? The third stage of our theoretical model (Fig. 23.1) suggests that the association between the neighborhood experience and mental health status is mediated or explained by several classes of secondary mechanisms, including socioeconomic status, biological factors, psychological dispositions, social resources, and health behaviors. With few exceptions, neighborhood-level processes are only indirectly associated with these secondary mechanisms through the neighborhood experience.

Socioeconomic Status

The arrow leading from neighborhood structure to socioeconomic status suggests that neighborhood-level socioeconomic disadvantage could undermine mental health by limiting opportunities for individual-level socioeconomic status. Research suggests that poorer neighborhoods are characterized by restricted access to community resources and opportunities, including quality schools and employment opportunities (Connell & Halpern-Felsher, 1997; Jencks & Mayer, 1990). Because poorer neighborhoods are defined by the concentration of poorer residents, tax revenue and consumer bases are often limited. Under these unique economic conditions, funding for schools is restricted and businesses are less viable. Studies provide indirect support for these explanations, showing that residence in a disadvantaged neighborhood is associated with poorer educational outcomes (Connell & Halpern-Felsher, 1997; Halpern-Felsher et al., 1997; Jencks & Mayer, 1990). Unfortunately, because people of low socioeconomic status are often selected into disadvantaged neighborhoods, it is extremely difficult to directly test whether neighborhood structure contributes to mental health through socioeconomic mechanisms. Any attenuation of the association between neighborhood structure and mental health could reflect selection processes, mediation processes, or some combination.

Neighborhood-level factors could also undermine socioeconomic status through processes related to the neighborhood experience. Perceptions of low collective efficacy in the neighborhood could increase the probability of absenteeism by reducing the perceived costs associated with skipping school. When residents attend school, perceptions of disorder in the environment could undermine learning through biological, psychological, and behavioral mechanisms. For example, research shows that chronic stress can impair memory function, the sense of control, and sleep quality (McEwen & Lasley, 2002; Mirowsky & Ross, 2003).

Biological Factors

The neighborhood experience could also undermine mental health through biological mechanisms, including physiological and cellular functioning. Residents of disadvantaged neighborhood environments are likely to experience allostatic load or chronic activation of the physiological stress response and overexposure to stress hormones (Hill, Ross, & Angel, 2005; Massey, 2004; McEwen, 1998; Ross & Mirowsky, 2001), which is sufficient to disrupt or even damage the hypothalamus, hippocampus, and amygdala—regions of the brain that play important roles in the development of anxiety, depression, and cognitive dysfunction (Massey, 2004; McEwen & Lasley, 2002; Mirowsky & Ross, 2003). Although studies show that neighborhood-level disadvantage is associated with increased allostatic load (Merkin et al., 2009; Stimpson, Ju, Raji, & Eschbach, 2007), there is, to the best of our knowledge, no direct evidence linking the neighborhood experience to physiological functioning, only indirect assessments of perceived disorder and perceived stress (Gary et al., 2007).

Neighborhood context might also influence mental health through cellular functioning. Physiological functioning is closely tied to conditions in the environment. Although we tend to emphasize the human stress response when describing this relationship, it is important to consider that environmental conditions can also alter the function (not the sequence) of DNA through epigenetic processes. Studies have identified several key environmental conditions (e.g., stressors, toxic exposures, and poor nutrition) that produce epigenetic modifications to the DNA and affect gene expression (Meaney, 2010; Rutter, Moffitt, & Caspi, 2006). If, as research suggests, disadvantaged neighborhoods support relevant environmental signals, experiences in the neighborhood could conceivably enhance the liability toward a range of mental health conditions through epigenetic processes (Rutter et al., 2006).

Psychological Dispositions

The association between the neighborhood experience and mental health could be explained by various psychological dispositions, including mistrust, self-esteem, and the sense of control. When residents experience neighborhood disorder (e.g., criminal activity) as a way of life, they learn that people in the environment can be threatening and dangerous (Mirowsky & Ross, 2003; Ross & Jang, 2000). Under these conditions, residents are likely to develop negative dispositions toward humanity (e.g., generalized mistrust and misanthropy) in the interest of survival. Mirowsky and Ross define mistrust as "…the cognitive habit of interpreting the intentions and behavior of others as unsupportive, self-seeking, and dishonest" (p. 234). Studies show that perceptions of neighborhood disorder can contribute to general feelings of mistrust (Ross & Jang, 2000; Ross & Mirowsky, 2009; Ross, Mirowsky, & Pribesh, 2001). These patterns are important because research also suggests that mistrust is associated with higher levels of psychological distress (Mirowsky & Ross, 2003). Mirowsky and Ross (2003) offer the following explanation for the link between mistrust and mental health: "Mistrust represents a profound form of alienation that has gone beyond a perceived separation from others to a suspicion of them… The suspicion of others indicates a heightened sense of threat, and the lack of confidence in others is a form of demoralization" (p. 236). Consistent with these processes, (Ross & Mirowsky, 2009) find that the positive association between perceived disorder and distress is partially mediated or explained by higher levels of mistrust.

Because places are imbued with social significance and social value, the self-concept can be intimately tied to the places we inhabit (Fitzpatrick & LaGory, 2010). What is the symbolic value of living in a disadvantaged neighborhood? Mirowsky and Ross (2003) argue that perceptions of neighborhood disorder suggest to residents that "…the people who live around them are not concerned with public order, that the local agents of social control are either unable or unwilling to cope with local problems, and that those in power have probably abandoned the neighborhood" (p. 151). If residents feel this way about their neighborhoods, their self-esteem or self-worth is likely to suffer as a consequence of negative social comparisons and reflected appraisals. Although empirical support for these processes is limited, there is at least some evidence to suggest that perceptions of neighborhood disorder can undermine self-esteem in childhood (Turley, 2003), adolescence (Bámaca, Umaña-Taylor, Shin, & Alfaro, 2005; Behnke, Plunkett, Sands, & Bámaca-Colbert, 2011), and adulthood (Haney, 2007). Furthermore, Behnke et al., (2011) find that the association between perceived neighborhood disorder and depression is at least partially mediated or explained by lower levels of self-esteem in Latino adolescent boys living in Los Angeles.

Stable conditions of neighborhood disadvantage and disorder can be overwhelming. When residents are repeatedly exposed to dilapidation, crime, and low levels of social control, they come to view the neighborhood environment as unpredictable and chaotic (Mirowsky & Ross, 2003; Ross & Mirowsky, 2009). If residents perceive that these conditions are inescapable and that they are incapable of changing or improving their living conditions, they are likely to develop a general sense of powerlessness. In support of this perspective, studies show that neighborhood disadvantage, perceived disorder, and lower levels of perceived neighborhood cohesion can undermine control beliefs, including self-efficacy, self-control, and the sense of control (Bierman, 2009; Boardman & Robert, 2000; Downey & Van Willigen, 2005; Geis & Ross, 1998; Ross & Mirowsky, 2009; Ross et al., 2001; Ross et al., 2000; Stafford et al., 2011; Teasdale & Silver, 2009). Our review of the literature revealed two formal mediation tests involving the sense of control. Ross & Mirowsky (2009) report that the positive association between perceived neighborhood disorder and psychological distress is partially mediated or explained by the sense of control. Stafford et al. (2011) find that the sense of control partially mediates the inverse association between perceived neighborhood cohesion and depression.

Social Resources

Neighborhood context could also contribute to mental health by shaping social resources, including social ties and social support (Cutrona et al., 2006). Residence in a disadvantaged neighborhood may undermine the formation and maintenance of social ties in various ways. Residential instability (i.e., people frequently moving in and out of the neighborhood) would clearly limit opportunities for social interaction. For example, Ross et al. (2000) show that residential stability is positively associated with social ties in the neighborhood.

Ross et al. (2000) also find that neighborhood poverty reduces social ties with neighbors. They argue that perceived neighborhood disorder is one possible mechanism of neighborhood stability and neighborhood socioeconomic status. If perceptions of disorder contribute to negative dispositions toward humanity (e.g., mistrust and misanthropy), it is reasonable to expect that residents of disadvantaged neighborhoods might go out of their way to avoid social interaction (Ross & Mirowsky, 2009). Consistent with this perspective, studies show that perceptions of disorder tend to limit social ties with neighbors (Geis & Ross, 1998; Kim, 2010). There is also some evidence to suggest that residents who perceive their neighborhoods to be less cohesive also tend to rate their friendships more negatively (Stafford et al., 2011).

Restricted opportunities for social interaction would obviously constrain network size and, by extension, limit the availability or receipt of social support. Even under the conditions of extensive social networks, negative dispositions toward humanity (e.g., mistrust) could undermine perceptions of the availability of social support (Ross & Mirowsky, 2009). Research shows that neighborhood socioeconomic disadvantage (Schieman, 2005) and perceived neighborhood disorder (Kim, 2010) are associated with lower levels of social support. There is also some evidence to suggest that the inverse association between neighborhood socioeconomic disadvantage and social support can be offset by residential stability (Schieman, 2005).

We were able to find two mediation tests involving social resources. Kim and Ross (2009) show that social ties and social support partially mediate the positive association between perceived neighborhood disorder and depression. Stafford et al. (2011) find that the inverse association between perceived neighborhood cohesion and depression is partially mediated by friendship quality.

Health Behaviors

Finally, the neighborhood experience could undermine mental health by promoting risky health-related behaviors, including, for example, poor sleep quality and substance use. Because sleep is an adaptive behavior, neighborhoods that are characterized by noise, dilapidation, and crime might directly undermine the ability of residents to initiate and/or maintain sleep (Hill et al., 2009). Studies show that perceptions of neighborhood disorder are associated with sleep problems (e.g., trouble falling asleep and difficulty staying asleep) and poorer overall sleep quality (Hill et al., 2009; Steptoe, O'Donnell, Marmot, & Wardle, 2008). There is even some evidence to suggest that the association between perceived neighborhood disorder and psychological distress is at least partially mediated or explained by sleep quality (Hill et al., 2009).

Disadvantaged neighborhood environments may also encourage the use and abuse of alcohol and illicit drugs. Residents of disadvantaged neighborhoods have more opportunities to purchase alcohol and drugs. For example, research suggests that alcohol outlets are more prevalent in disadvantaged communities (Hill & Angel, 2005; Nielsen, Hill, French, & Hernandez, 2010). Disadvantaged neighborhoods may provide a normative context in which heavy drinking and illicit substance use are not sanctioned as strongly as within other neighborhoods (Boardman, Finch, Ellison, Williams, & Jackson, 2001; Fitzpatrick & LaGory, 2010; Hill & Angel, 2005). It is hypothesized that residents may use substances to cope with the stress associated with the experience of neighborhood disorder (Boardman et al., 2001; Hill & Angel, 2005). Indeed, studies show that neighborhood disadvantage and disorder are associated with higher levels of alcohol consumption and drug use (Boardman et al., 2001; Hill & Angel, 2005; Stimpson et al., 2007).

Moderators of Neighborhood Context

Bronfenbrenner (1979) was among the first to suggest that similar living environments could influence individuals more or less depending upon personal characteristics and life conditions. Following this important work and more recent discussions (Aneshensel, 2010), Fig. 23.2 presents several potential moderators of the association between neighborhood context and mental health. In this section, we consider subgroup variations that have been emphasized in the literature, including those by socioeconomic status, race/ethnicity, and social resources. We also explore more recent attempts to frame psychological dispositions and health behaviors as moderators.

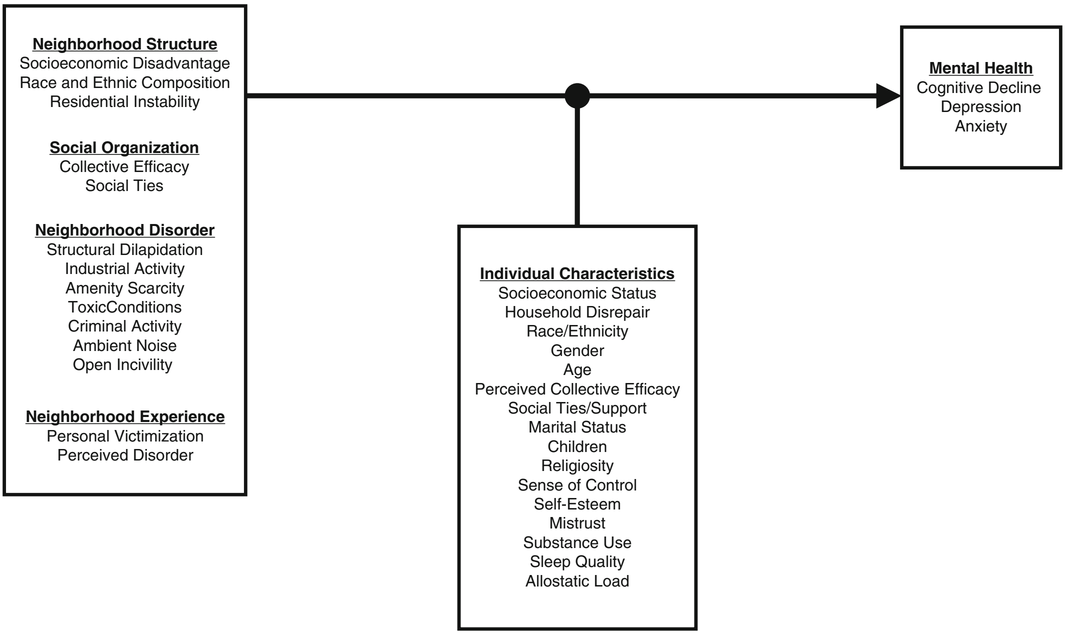

Fig. 23.2 Moderators of the link between neighborhood context and mental health

Socioeconomic Status

Studies consistently show that individual-level socioeconomic status is protective against the mental health consequences of living in a disadvantaged neighborhood. Research indicates that personal wealth may attenuate the effects of neighborhood socioeconomic disadvantage on depression (Wight et al., 2011) and cognitive functioning (Aneshensel et al., 2011). Other studies show that education can buffer the effects of black residential segregation (Aneshensel et al., 2011) and neighborhood socioeconomic disadvantage (Wight et al., 2006) on cognitive functioning. There is also some evidence to suggest that industrial waste production in the neighborhood is less distressing for residents with higher levels of personal income (Downey & Van Willigen, 2005).

These moderation patterns have been attributed to "compound disadvantage" processes (Aneshensel et al., 2011; Wight et al., 2011). The idea is that disadvantaged individuals (e.g., people of low socioeconomic status) may be especially vulnerable to the psychological consequences of stressful neighborhood conditions. Downey and Van Willigen (2005) speculate that disadvantaged individuals may be more susceptible because they tend to have fewer stress-buffering resources (e.g., a sense of personal control).

Race and Ethnicity

Subgroup variations by race and ethnicity are somewhat mixed. Studies show that neighborhood industrial waste production and perceptions of disorder may be especially depressing among Hispanics (Downey & Van Willigen, 2005; Echeverría et al., 2008). Research also suggests that non-Hispanic whites may benefit more from neighborhood cohesion in terms of anxiety and depression than non-Hispanic blacks (Gary et al., 2007). Although Asian subgroup data is scarce, there is some evidence to suggest that the association between perceived neighborhood disorder and depression is more pronounced among Chinese Americans than non-Hispanic whites and blacks (Echeverría et al., 2008). Some research reports no black-white variations in the effects of perceived disorder on depression (Echeverría et al., 2008; Gary et al., 2007) and anxiety (Gary et al., 2007). Other studies of depression show no race or ethnic variations in the effects of perceived disorder (Ross, 2000) and neighborhood cohesion (Echeverría et al., 2008).

Why might the association between neighborhood context and mental health status vary according to race and ethnicity? Viable answers to this question are uncertain because relevant moderation tests are often performed in an exploratory fashion, with little to no theoretical background. "Compound disadvantage" could help to explain the susceptibility patterns of certain groups (e.g., blacks and Hispanics), but this perspective cannot be applied to other groups (e.g., Chinese Americans). It is also unclear why subgroup variations by race and ethnicity are apparently less common than those by socioeconomic status.

Social Resources

Research concerning the buffering role of social resources is less consistent than variations by socioeconomic status and race and ethnicity. Some work on depression finds that neighborhood social ties and general social support are protective against perceived neighborhood disorder (Kim & Ross, 2009; Schieman & Meersman, 2004), while others show no variations according to levels of general social integration and social support (Latkin & Curry, 2003). Bierman (2009) considers whether the effect of perceived neighborhood disorder on changes in depression varies according to marital status among older adults. His analysis indicates that perceived neighborhood disorder contributes to new symptoms of depression among nonmarried individuals; among married individuals, perceived neighborhood disorder is unrelated to changes in depression. Although some anxiety research suggests that the effect of perceived neighborhood disorder is attenuated by neighborhood social ties (Ross & Jang, 2000), social support (Schieman & Meersman, 2004) and perceived neighborhood cohesion (Aneshensel & Sucoff, 1996) are not effective in this way. There is also some evidence to suggest that the effect of neighborhood disorder (indicated by the aggregation of individual ratings of community dilapidation and deviance) on psychological distress is less pronounced for individuals with higher levels of relationship quality (indicated by a mix of perceived social support and network burden) (Cutrona et al., 2000).

Explanations for the stress-buffering role of social resources are well established in the mental health literature. Social ties are important as sources of social support, which may help to reduce the psychological consequences of stressful neighborhood conditions by encouraging positive psychological dispositions (e.g., self-esteem) and stress appraisals (e.g., from knowing that one has help, that one is not alone) (Kim & Ross, 2009; Ross & Jang, 2000). Through these general mechanisms, social support (e.g., knowing that people are available to listen to problems) could attenuate the impact of social and physical disorder in the environment, but research clearly suggests that neighborhood conditions can be sufficient to overcome personal social resources.

Psychological Dispositions

To the best of our knowledge, very few studies have tested whether the association between neighborhood context and mental health might vary according to psychological dispositions. Nevertheless, research by Cutrona et al., (2000) suggests that the effect of high neighborhood disorder (aggregate ratings) on psychological distress can be buffered by a positive outlook (indicated by the combination of the sense of control and optimism). Schieman and Meersman (2004) also find that, among older men, the positive association between neighborhood disorder and anger is attenuated by a greater sense of mastery; however, this moderation pattern did not extend to depression or anxiety in older men or women.

Unfortunately, there are no established explanations for these patterns. Disadvantaged neighborhoods should be less threatening to people who feel in control of their own lives and to those who are generally optimistic about the future. For example, when individuals have a strong sense of control, they believe that life is manageable and controllable (Mirowsky & Ross, 2003). Under these conditions, life events are less uncertain and discouraging, and symptoms of anxiety (e.g., fear and worry) and depression (e.g., sadness and hopelessness) are less likely.

Health Behaviors

Like psychological dispositions, there is very little evidence to suggest the relevance of health behaviors as viable moderators. One study by Hill et al. (2009) indicates that the positive association between perceived neighborhood disorder and psychological distress is attenuated among residents with higher levels of sleep quality. They explain that sleep is fundamental for physiological restoration. Under the conditions of restful sleep, the brain downregulates the sympathetic nervous system and activates the parasympathetic nervous system. Because sleep deprivation tends to prolong the sympathetic stress response, the body is especially vulnerable to the effects of stressors in the environment.

Avenues for Future Research

In this chapter, we explored the association between neighborhood context and mental health. We defined neighborhood context, described associations with several indicators of mental health status, and developed the theoretical and empirical bases for several potential mediation and moderation processes. Where do we go from here? In this final section, we highlight several promising avenues for future research.

Neighborhood Assessments

Objective assessments of the neighborhood environment (e.g., census measures) are often thought to represent the model of measurement excellence; however, they can result in significant "exposure misclassification." For example, a recent study by Basta et al., (2010) show that residents' drawings of neighborhoods and activity paths are often inconsistent with census tract boundaries. This research raises an important methodological issue. If residents perceive their neighborhoods in one way and census definitions operationalize neighborhoods in a different way, what are we measuring? Basta et al. (2010) conclude that "…classifying subjects as exposed based solely on the prevalence of the exposure in the geographic area of their residence may misrepresent the exposure that is etiologically meaningful" (p. 1943).

Subjective assessments of the neighborhood are generally devalued because preexisting mental health conditions are likely to favor negative ratings of the neighborhood. To avoid the possibility of "same-source bias," many studies are restricted to objective or independent assessments of the neighborhood. When studies are limited to independent assessments, there is no direct sense of the human experience within neighborhoods. This raises an important theoretical issue. If stress serves as the primary link between neighborhood context and mental health, the subjective neighborhood experience must be directly measured to establish that residents actually define neighborhood conditions as noxious or threatening.

It is also important to think more critically about how to use and explain objective and subjective assessments in the same study. This is especially important when data sources include objective and subjective assessments of the same concept. For example, is it theoretically meaningful to incorporate individual-level measures of collective efficacy in a model that includes the same measures aggregated to the neighborhood-level? Collective efficacy measured at the neighborhood-level could favor mental health by increasing awareness (i.e., subjective perceptions) among individual residents that neighbors get along, trust and help each other, share common values, and are willing to intervene in the interests of the community. The effect of neighborhood-level collective efficacy on mental health might also vary according to individual-level perceptions of collective efficacy. How comforting is high neighborhood-level collective efficacy to individuals who perceive low levels of collective efficacy?

Mental Health Outcomes

Although this chapter has focused on research in the areas of depression, anxiety, psychological distress, and cognitive functioning, we acknowledge that neighborhood context is related to other important indicators of mental health, including, for example, happiness (Usher, 2007), anger (Ross & Mirowsky, 2009; Schieman & Meersman, 2004; Schieman, Pearlin, & Meersman, 2006), schizophrenia

(Goldsmith, Holzer, & Manderscheid, 1998; Silver et al., 2002), broader classifications of internalizing and externalizing disorders (McLeod & Edwards, 1995; Wheaton & Clarke, 2003), and any mental disorder (Goldsmith et al., 1998; Stockdale et al., 2007). Because most studies focus on depression, it is important for future work to explore a broader range of mental health outcomes. Research along these lines would directly test whether the effects of neighborhood context are truly nonspecific. Aneshensel and Sucoff (1996) explain that "…understanding the mental health consequences of social organization is a more complex task than describing the social etiology of a specific psychiatric disorder" (p. 306).

Mediation Processes

Studies often speculate as to why neighborhood context might be associated with mental health; however, empirical support for these explanations is sorely lacking. For example, we noted limited evidence for biological and behavioral mechanisms. It is vital for future research to employ formal mediation tests to confirm these patterns and to examine new and understudied mechanisms. If the neighborhood experience is a crucial mechanism of neighborhood-level processes, the next step is to explain the psychological consequences of these experiences. While it is important to establish individual mechanisms, future work should focus more on developing and testing elaborate theoretical models with multiple mediators and complex causal chains (Ross & Mirowsky, 2009). We should also devote more attention to developing and testing patterns of mediated moderation. Tests of mediated moderation seek to identify mechanisms to explain subgroup variations (Bierman, 2009; Ross et al., 2000). If subgroup variations exist, why do they?

Moderation Processes

Under which conditions might neighborhood context be more or less relevant to mental health? Empirical evidence of subgroup variations is often either limited or mixed. Clearly, additional research is needed to confirm previous patterns (e.g., for social resource moderators) and to consider new and understudied subgroup variations (e.g., for biological, behavioral, and psychological moderators). In the interest of interpretation, it is extremely important for studies to develop theoretical explanations for these variations a priori (e.g., for race and ethnic subgroup analyses). Whitfield et al., (2008) argue that "Science is advanced by evaluating theories in different groups to see if they remain valid and applicable" (p. P307). With this in mind, it is also important to consider the possibility of moderated mediation. Tests of moderated mediation consider the validity of causal processes within theoretically relevant subgroups. Are mediation processes invariant across groups, or do certain causal processes fit certain groups more or less?

Selection Effects

Does neighborhood context matter for mental health, or could we simply attribute these "effects" to the composition of the neighborhood? Because disadvantaged people are often selected into disadvantaged neighborhoods, it is often unclear whether the apparent mental health consequences of neighborhood context are true or simply a reflection of individual-level disadvantage. Contemporary research attempts to isolate context by controlling for composition at the individual-level. For example, adjustments for background demographic characteristics often attenuate (and sometimes eliminate) the effects of neighborhood structure on mental health. However, if the effect of neighborhood context on mental

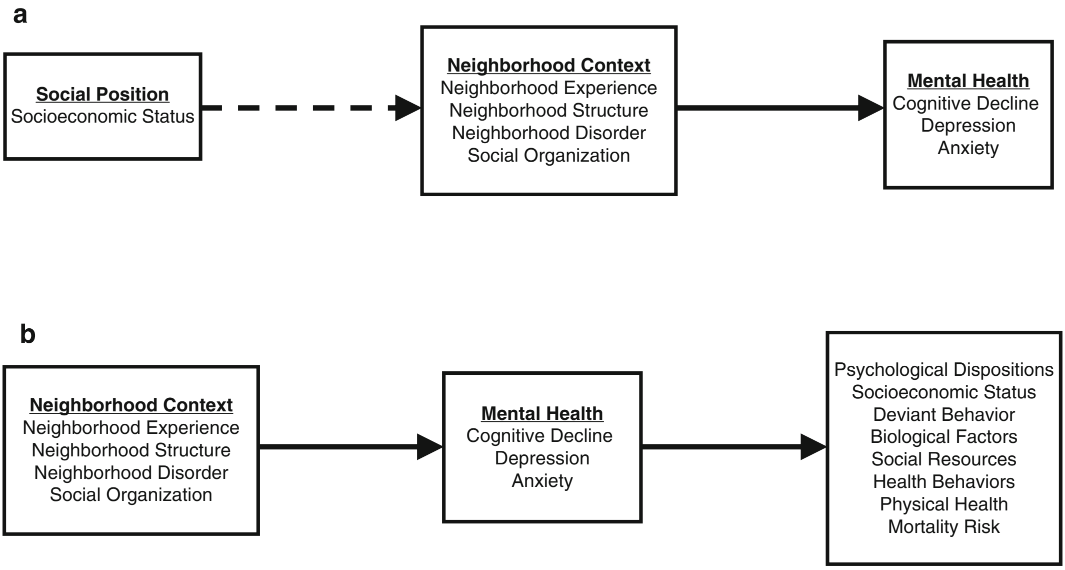

Fig. 23.3 Neighborhood context as a mechanism of social position (**a**) and mental health as a lynchpin mechanism (**b**)

health remains statistically significant at conventional levels when elements of composition have been taken into account, the contextual effect is assumed to be plausible.

Although recent studies do a good job of accounting for individual-level socioeconomic status, researchers rarely (if ever) account for other important elements of neighborhood composition that are related to personality and genetics. If personalities are patterned ways of thinking, feeling, and behaving, certain personality types might be more likely to move into or remain in a disadvantaged neighborhood. For example, dangerous neighborhoods could seem less noxious to residents with personalities that favor risk-taking (e.g., psychoticism). The concern is that psychoticism is known to predict poorer mental health (Compton, Carter, Kryda, Goulding, & Kaslow, 2008). It is also possible for an association between neighborhood context and mental health to be produced by a gene-environment correlation (i.e., genetic influences on environmental exposures). If families with risky genetic profiles are concentrated in disadvantaged neighborhoods, and if parents and children share a genetic liability toward a risky personality type, mental health condition, or both, any association between neighborhood context and mental health could reflect some unknown heritability process (Caspi, Taylor, Moffitt, & Plomin, 2000).

Model Extensions

The studies referenced in this chapter tend to emphasize a fundamental relationship between neighborhood context (the focal predictor) and mental health (the focal outcome). We would like to encourage researchers to expand their focus beyond these parameters. The connection between neighborhood context and mental health could be essential to understanding numerous outcomes and health-related processes. Figures 23.3 and 23.4 illustrate several viable paths by which to extend the relevance of future work.

Does neighborhood context link socioeconomic status and mental health (Fig. 23.3a)? It is well established that low socioeconomic status favors residence in disadvantaged neighborhoods. The broader issue is whether neighborhood-related exposures help to explain why people of low

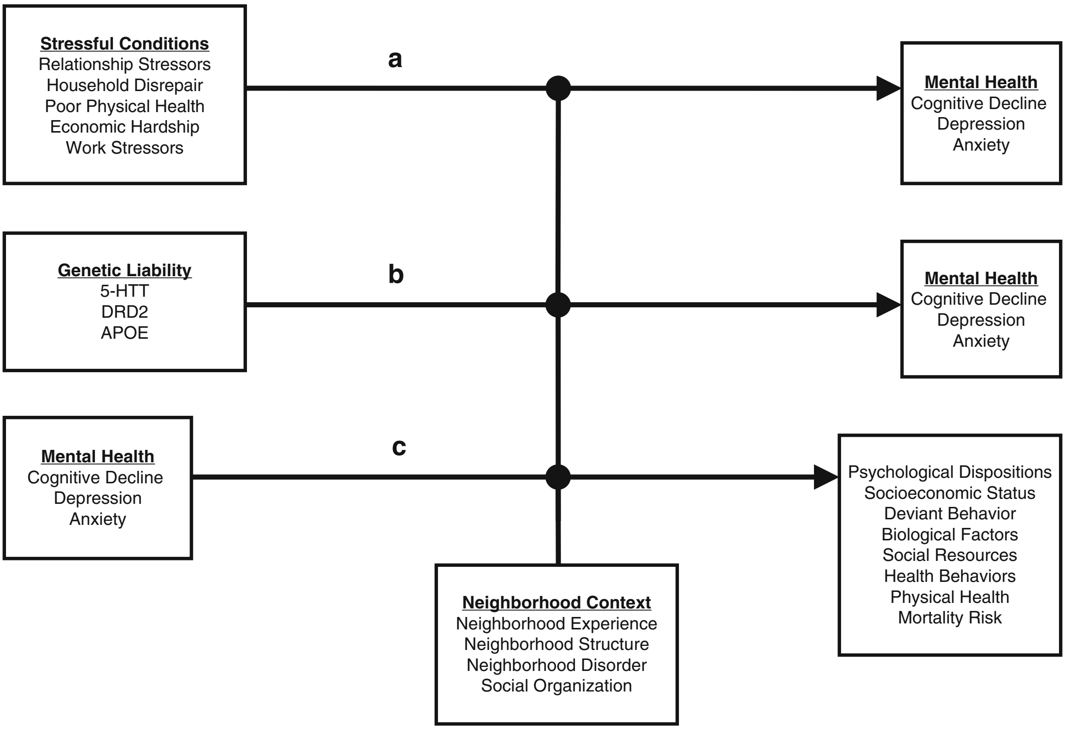

Fig. 23.4 Neighborhood context as a moderator of stressful conditions (**a**), genetic liability (**b**), and mental health (**c**)

socioeconomic status tend to exhibit poorer mental health (Evans & Kantrowitz, 2002; Williams & Collins, 1995). Admittedly, this process will be difficult to establish because, as discussed earlier, neighborhood context may also constrain status attainment.

Could mental health link neighborhood context with other outcomes (Fig. 23.3b)? Because mental health is relevant to so many health-related characteristics, it could serve as a lynchpin mechanism. For example, research suggests that mental health may help to mediate or explain the effects of neighborhood context on alcohol consumption (Hill & Angel, 2005), drug use (Boardman et al., 2001), diet, exercise, body mass (Burdette & Hill, 2008), and self-rated physical health (Hill et al., 2005). Given that mental health status is associated with chronic physical health conditions (Needham & Hill, 2010) and mortality risk (Rogers, Hummer, & Nam, 2000), future work should also emphasize these important outcomes.

Does neighborhood context moderate the association between stressful life conditions and mental health (Fig. 23.4a)? In other words, could stressful life conditions undermine mental health more or less depending on the neighborhood context? Living in a disadvantaged neighborhood could make already difficult life conditions worse. For example, research suggests that acute negative life events are more depressing in economically disadvantaged neighborhoods (Cutrona et al., 2005) and that lead exposure is especially detrimental to cognitive functioning under the conditions social and physical disorder (Glass et al., 2009). It is also possible for neighborhoods to enhance positive mental health processes. Indeed, there is some evidence to suggest that social integration is only protective against depression in economically advantaged neighborhoods (Elliot, 2000).

Could neighborhood context moderate the genetic liability toward poor mental health (Fig. 23.4b)? Several susceptibility genes have been implicated in the development of mental health conditions, including, for example, DRD2, 5-HTT, and APOE (Tsuang, Bar, Stone, & Faraone, 2004). The question is whether an individual's genetic predisposition toward a mental health condition could be expressed differently across neighborhood environments (Rutter et al., 2006; van Os, Hanssen, Bak, Bijl & Vollebergh, 2003). Research by van Os et al. (2003) offers some indirect evidence of this process. They find that the association between family history of psychosis (an indicator of genetic risk) and lifetime prevalence of psychotic disorder is more pronounced with increasing levels of urbanicity (indicated by residential density). The authors conclude that "Social environments with a high level of deprivation and a low level of social capital may constitute the environments that interact with genetic liability to increase the risk for psychotic illness" (van Os et al., 2003, p. 481).

Finally, could neighborhood context serve as a moderator of the effect of mental health on other outcomes (Fig. 23.4c)? If neighborhoods shape exposures to stressful conditions and access to stress-buffering resources, neighborhood context could either amplify or protect against the adverse consequences of poor mental health status. For example, Maimon and Kuhl (2008) show that the positive association between depression and the number of suicide attempts in adolescence is attenuated with increasing levels of community-level religiosity. The authors conclude that "religious neighborhoods are more integrative in nature and offer more support through religious organizations and local social networks" (Maimon & Kuhl, 2008, p. 935).

Conclusion

Our overview and critical examination of relevant studies conducted over the past two decades suggests that neighborhood context matters for mental health over and above the characteristics of individual residents. This general pattern is remarkably consistent across studies of various indicators of mental health. Even more impressive is the reliability of findings across disciplines, including sociology, psychology, public health, and gerontology. Having said this, additional research is needed to establish (a) associations with new or understudied mental health outcomes, (b) complex mediation and moderation processes, and (c) theoretical and empirical links to subjective assessments of neighborhood experiences. It is also important for future studies to (d) consider selection linked to personality and genetic characteristics and to (e) extend the relevance of neighborhood-mental health research to new outcomes and health-related processes. Research along these lines will no doubt contribute to a more thorough understanding of neighborhood context as an important social cause of mental health.

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Part VI
Social Consequences

Chapter 24

The Social Dynamics of Responding to Mental Health Problems

Bernice A. Pescosolido, Carol A. Boyer, and Tait R. Medina

Abbreviations

CMHC	Community Mental Health Center
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders-IV
ECA	Epidemiological Catchment Area
GSS	General Social Survey
ICMHSR	Indiana Consortium for Mental Health Services Research
INMHS	Indianapolis Network Mental Health Study
MHCPR	Mental Health Care among Puerto Ricans (Study)
NEM	Network-Episode Model
NSS-C	National Stigma Study – Children
NSS-R	National Stigma Study – Replication

Since social scientists first directed their attention to understanding how individuals recognize and respond to mental illness, they have struggled to capture both the underlying process or dynamic that drives the search for care and the social, cultural, medical, and organizational characteristics that shape the fate of persons dealing with mental health problems. At present, the dominant approaches to studying what many people call help-seeking or health care decision-making, and others refer to as illness behavior or service use, focus on well-developed but essentially static models of the factors associated with use, adherence, and outcomes. The Health Belief Model (Strecher, Champion, & Rosenstock, 1997), the Theory of Reasoned Action and its close counterpart the Theory of Planned Behavior (Maddux & DuCharme, 1997), and the Behavioral Model of Health Service Utilization (Aday & Awe, 1997; Andersen, 1995) share an approach of outlining a comprehensive set of variables that shape the use of preventive and/or curative services and, of late, service outcomes. Although these models do not ignore the underlying process of service use, key assumptions focus primarily on the

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B.A. Pescosolido (✉) • T.R. Medina
Department of Sociology, Indiana University, Bloomington,
1022 E. Third Street, Bloomington, IN 47405, USA
e-mail: pescosol@indiana.edu

C.A. Boyer
Institute for Health, Health Care Policy, and Aging Research,
Rutgers University, New Brunswick, NJ, USA

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factors that facilitate or discourage entry into formal treatment (for reviews of strength and limits of these approaches, see Gochman, 1997; Pescosolido, 1991, 1992; Pescosolido & Boyer, 2010). Rarely are the dynamics of coping with health problems a part of the empirical study of illness behavior. With the dynamics assumed, empirical studies in this tradition collect information on the extent and volume of use of services and on a wide range of factors thought to influence the behavior of those entering treatment.

Our approach is less traditional and of somewhat lower visibility. While utilization researchers have become fond of speaking of pathways to care, much of their research remains focused on the correlates of care outlined in the dominant models. We trace theoretical and empirical work describing the process of coping with mental illness and the patterns and sequences of using different systems of care. Understanding how individuals respond to mental illness, what pathways they are willing or unwilling to pursue, and what factors shape their trajectories require a step backward to reevaluate what is known about the dynamics of service use and where further theorizing and research are needed. We begin by describing two classic studies that initially invoked an illness career approach and highlight their fundamental lessons. We explore the recognition of mental illness by clients and families, different modes of entry into the formal system of care, the availability and use of diverse systems of care, and the patterns and pathways to care. The Network-Episode Model is described briefly, along with findings from studies using this model and similar theoretical approaches. We conclude by reconsidering the fundamental role that social, cultural, and organizational resources play in use of services, combining the strengths of previous process (i.e., dynamic) and contingency (i.e., listing of factors) models of utilization.

The Process of Responding to Mental Health Problems

Parsons' Illness Career and Clausen and Yarrow's Pathways to the Mental Hospital

A concern with process was central to early studies of how individuals coped with illness and their use of formal health care services (Parsons, 1951). Social, economic, and technological changes occurred, and with them, well-known theories of how individuals responded to illness were developed. Persons who became ill were assumed to want to take advantage of the specialized knowledge and expertise associated with the rise of modern medical practice, including psychiatry, psychoanalysis, and social work (see Pescosolido, 1992; Pescosolido & Kronenfeld, 1995). Under the simple "physician or not" dichotomy underlying these works, the assumptions about utilization in the transition to using modern medicine were oversimplified. Nevertheless, in these early studies, the experience of illness and entering treatment was embedded in social life and framed as a causal, time-ordered process (Pescosolido & Rubin, 2000).

Talcott Parsons is credited with developing the first major social science schema for understanding people's behavior when they are ill. His concept of the sick role, with accompanying rights (role release, nonresponsibility) and obligations (undesirability and help-seeking), dominated social science approaches from the 1950s to the 1970s. What is less understood about Parsons' (1951) work in *The Social System* is that it contained an implicit model of an illness career that laid out stages and mechanisms for the transition between stages. Our visual understanding of this model is presented in Fig. 24.1.

For Parsons, the illness career began with the onset of symptoms. In the first stage that Suchman (1964) called "the decision that something is wrong," the sick person evaluated generalized objective criteria and weighed the severity of the problem, the prognosis, the frequency of its occurrence,

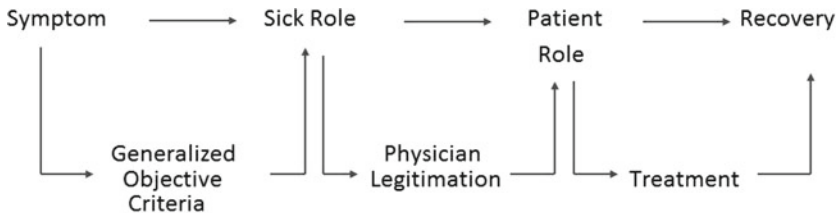


Fig. 24.1 Diagrammatic representation of Parsons' (1951) illness career model

and normal well-role expectations. Individuals would evaluate their circumstances rationally and scientifically, make a claim to those around them in the community, and proceed to either enter the sick role or return to normal roles. Upon entering the sick role, individuals would receive benefits and take on the obligations associated with the role. Because the obligation of seeking help from a competent professional (e.g., a physician, nurse) was an essential part of the sick role, individuals would proceed to make a claim to enter the patient role. At this stage, which Suchman called "the decision to seek professional advice," the gatekeepers are health care professionals who legitimate only true claims of illness, protecting society from malingerers who might inappropriately seek the secondary gains of the patient role. Once in the patient role, the "decision to accept professional treatment," individuals with similar medical problems are treated equally. Once recovered, individuals reenter the world of the well, resume normal roles, and relinquish the rights and obligations of the roles associated with the illness career.

Across 20 years and hundreds of articles in the sociomedical sciences, researchers filled in the details of this model and showed where Parsons' theoretical, deductive, and logical scheme represented modern society's faith in the promise of modern medicine (e.g., see Segall, 1997; Siegler & Osmond, 1973). Parsons' sick role and illness career represented ideal types, not the social reality of illness onset and response. The voluminous research on the sick role yielded a large set of contingencies or variables for use in the now-dominant correlational models of health service use where an emphasis on dynamic process shifted to more static associations. Parsons' focus on the importance of the community as the adjudicator of the sick role was also minimized. The patient role (being in treatment) was also often confused in practice with the sick role (a shift in status granted in the lay community). Both Parsons' approach and the multidimensional contingency theories that developed from it shared a view of service use as essentially help-seeking and focused more on acute, physical illness rather than on chronic and long-term health and behavioral problems.

At about the same time, John Clausen and his colleagues at the Laboratory of Socio-environmental Studies within the research branch of the National Institute of Mental Health used an inductive approach to study how people came to use formal services. Studying men who were hospitalized and diagnosed with schizophrenia, they described a social process that looked substantially different from Parsons' model. In their own words, they aimed "to delineate the process whereby families adapt to mental illness and to distinguish variables in personality, culture, or in the social situations which significantly affect this process" (Clausen & Yarrow, 1955, p. 4). Rather than a rational evaluation of psychiatric symptoms, Clausen and his colleagues described long scenarios of confusion, the use of coercion (from family and friends, as well as bosses and police), and accounts that varied, sometimes dramatically, from Parsons' ideal type. These researchers found that mental illness "seldom manifests itself in the guise of the popular stereotype of 'insanity'" (p. 4). Individuals, families, and others struggled to understand and attach meaning to the unfolding of a serious mental illness.

Our understanding of Clausen and Yarrow's description of the process preceding a first hospitalization in the 1950s at St. Elizabeth's in Washington, DC, can be described as:

> *Onset of Problem → Adjust Expectation for Self and Husband → Shifting Definition → Adaptation to "Weirdness" → Threshold Point → Hospital.*

The stories of the men in their study, who were white and 20–60 years old, were told by their wives. For these women, the onset of the illness was rarely clearly demarcated. After marrying, the wives noticed things that they attributed to a variety of factors unrelated to mental illness. About 6 months into their marriage, one wife noticed that her husband, a 35-year-old cab driver, had irregular work habits and complained of constant headaches. Although she occasionally thought this behavior "wasn't right," she adjusted her expectations and attributed his behavior to his personality ("a nervous person"), his past experiences ("Worrying about the war so much … has gotten the best of him"), and the subcultural norms of his occupation ("Most cab drivers loaf"). For the next 2 years, she shifted her definitions of their marriage, her husband's behavior, and their circumstances. She thought that he was lazy at one point and, later, that he was seeing another woman. She developed strategies to deal with instances of odd behavior. When her husband spoke of existing plots of world domination, she learned that confronting him simply increased his agitation and escalated the situation, so she adapted by "chang[ing] the subject." Despite these accommodations, this "accumulation of deviant behavior" strained the wife's level of tolerance, which nevertheless remained below her threshold of defining his illness as long as she was able to bring some common understanding to these incidents. With a trigger event, she reached a threshold where she was confronted with defining his behavior as an illness. At this point, her husband had stopped bathing and changing clothes; he chased her around the house and growled like a lion. She learned later that he went to a local church, made a scene, and was taken to the hospital by the police. Even though she had forced him earlier to go to a physician, she was not involved in the decision-making process for entry into psychiatric care. Only with his involuntary admission to a psychiatric hospital did she frame his problem as a psychiatric one. Framing and analyzing this story as a process of help-seeking for a mental health problem is complex and problematic – neither the wife nor the husband sought help, nor did the mental health problem unfold in a linear progression.

From this classic study, four important aspects of research on mental health problems (and perhaps most illnesses, especially chronic ones) are apparent. First, mental health problems are poorly understood by most people, even though mental health literacy appears to be improving (Pescosolido et al., 2010). Typical symptoms of schizophrenia, and more so of depression, are not easily or quickly recognized as illness. Families often normalize situations, adapting to and accommodating behavior. Second, others beyond the family (e.g., police, bosses, teachers) are often the first to see the person's behavior as a mental health problem. Third, the image of entering or seeking treatment voluntarily often is not entirely accurate. Fourth, an orderly progression through well-defined and logical stages is contradicted by the stories of people who have faced, either for themselves or for their family members, mental health problems.

Despite the insights of Clausen and Yarrow's path-breaking study, major social, scientific, and health policy changes shifted sociological interests from the community to the nation and from detailed qualitative studies to large-scale quantitative methods in studies of utilization of mental health care services. These studies provided foundational information to understand the profile of use (low) and users (especially white, middle-class, insured, women). The reports in the classic Epidemiological Catchment Area (ECA) studies (Robins & Regier, 1991), that 1 in 5 individuals in the USA had need for care and now reported in the National Comorbidity Surveys (NCS-R, Wang et al., 2005) to be 1 in 4 for adults, make clear the urgency to understand how individuals conceptualize problems in living (Scheff, 1966) that might be mental disorders, what they see as appropriate sources of care, and what shapes pathways into treatment.

Several different literatures have evolved which help us to understand the social realities faced by patients, families, and others who interact with a person with psychiatric symptoms or a diagnosed mental illness. Years ago, Mechanic (1968) noted that lay attributions of illness and influence from others were central to understanding illness behavior. We add that social and cultural beliefs about the use of coercion and the refinement of stage models are needed to explain the complexity of pathways to mental health care.

Acknowledging the Complexities: Levels of Beliefs, Lines of Acceptable Care, and Pursuing Them in Research

Lay accounts of problem definition and the process of entering treatment are contained in a proliferating literature of first-person accounts, case studies, and surveys (e.g., Jamison, 1996; Karp, 1996). How key symptoms such as delusions are transformed and responded to by the self and others, the cognitive and emotional factors affecting their interpretation, and the process of referral and entry into treatment are relevant to social scientists and clinicians alike. Learning more about how people make sense of psychiatric symptoms and their social selection into various pathways is essential to understanding the construction of meaning, to identifying relevant data for utilization studies, and to closing the communication gap between mental health care providers, individuals, and families and other caregivers.

Recognizing and defining a symptom of mental illness is a difficult, sometimes illogical, perplexing, and generally distressing and protracted process (Furnham, 1994; Horwitz, 1982). Only limited public understanding or agreement exists about when behaviors are serious enough to require psychiatric treatment. Misconceptions about the illness and the person with the mental illness are common. One study of lay beliefs about persons with schizophrenia showed that they were regarded with apprehension, as potentially dangerous, amoral, egocentric, and as dropouts or vagrants (Furnham & Rees, 1988). The recognition of mental illness is often delayed because self- and other appraisals are not always consistent with the medical model or clinical interpretations.

Complicating the lay recognition of symptoms of mental illness is stigma (see Chap. 25). The negative cultural stereotypes associated with the label of a mental illness and the fear of prejudice and discrimination prompt defenses against acknowledging symptoms and behaviors as mental illness. In their efforts to manage difficult behaviors, individuals and their families deny, withdraw, conceal, or normalize symptoms (Clausen & Yarrow, 1955; Link, Mirotznik, & Cullen, 1991). Within some families and communities, a high tolerance for disturbing behaviors delays early recognition of mental illness. In other cases, symptoms and behaviors may not be seen as treatable or worthy of medical intervention (Freidson, 1970).

A direct pathway to specialty mental health care does not logically follow from the onset of symptoms or even with a relapse of prior symptoms. It is not unusual for two or more years to elapse between the onset of symptoms and hospitalization (Clausen & Yarrow, 1955; Horwitz, 1977a). Close relatives are sometimes more likely to deny the initial symptoms, whereas more distant relatives and friends may be more willing to interpret symptoms and behavior within a psychiatric framework (Horwitz, 1982). Selection into care is also strongly influenced by gender. Women are more likely than men to recognize their problem as an emotional one and be labeled with a psychiatric problem by family and friends (Horwitz, 1977b). Based on attributions about symptoms, people engage in self-medication and seek advice from friends and relatives long before entering treatment. Even with referrals from primary care to specialty mental health care, the process of selection is influenced as much or more by social factors as by clinical factors, including symptom severity (Mechanic, Angel, & Davies, 1991; Morgan, 1989).

Research on recognizing and perceiving illness, as well as its cause, course, and treatment, suggests that people may act on the basis of schemas, that is, a cognitive approach used to organize and simplify the world. One of the more studied schemas is the self-regulation model that shows how individuals' representations of illness threats affect coping responses and intervention efforts (Leventhal, Leventhal, & Contrada, 1998). While limited work has been done on schemas for psychiatric disorders, public views of mental illness and the ability to recognize behaviors as mental health problems are available in the General Social Survey (GSS). In a nationally representative sample of Americans in the 2006 GSS, respondents were asked a series of questions about one of four vignettes written to conform to criteria in the fourth edition of the *Diagnostic and Statistical Manual of Mental*

Disorders (DSM-IV) of the American Psychiatric Association (2000). The following two examples are vignettes for schizophrenia and major depression:

> [Schizophrenia]
>
> [Name] is a [Race/ethnicity] [Gender] with an [education level]. Up until a year ago, life was pretty O.K. for [Name]. But then things started to change. S/he thought that people around [him/her] were making disapproving comments and talking behind [his/her] back. [Name] was convinced that people were spying on [him/her] and that they could hear what [s/he] was thinking. [Name] lost [his/her] drive to participate in [his/her] usual work and family activities and retreated to [his/her] home, eventually spending most of [his/her] day in [his/her] room. [Name] became so preoccupied with what [s/he] was thinking that [s/he] skipped meals and stopped bathing regularly. [Name] began hearing voices even though no one else was around. These voices told [him/her] what to do and what to think. [S/he] has been living this way for six months.
>
> [Major Depression]
>
> [Name] is a [Race/ethnicity] [Gender] with an [education level]. For the past two weeks, [Name] has been feeling really down. [S/he] wakes up in the morning with a flat heavy feeling that sticks with [him/her] all day long. [S/he] isn't enjoying things the way [s/he] normally would. In fact, nothing gives [him/her] pleasure. Even when good things happen, they don't seem to make [name] happy. [S/he] pushes on through [his/her] day but it is really hard. The smallest tasks are difficult to accomplish. [S/he] finds it hard to concentrate on anything. [S/he] feels out of energy and out of steam. And even though [Name] feels pretty worthless, and very discouraged, [name's] family has noticed that [s/he] hasn't been [him/herself] for about the last month and that [s/he] has pulled away from them. [Name] just doesn't feel like talking.

The equivocal responses by the public to two of the five scenarios of mental illness analyzed in the 2006 GSS are instructive (Pescosolido et al., 2010; simplified descriptive tables available at http://www.indiana.edu/~icmhsr/). Considerable certainty (91.3%) exists about the person with signs and symptoms of schizophrenia as being somewhat or very likely to have a mental illness. Over half (62.9%) of the respondents see the person as very likely experiencing a mental illness. When respondents were asked directly how likely it was that the person was experiencing schizophrenia, almost 80% responded that this was likely the case. Further, over three-quarters (82.4%) of Americans agree with a more colloquial label, identifying the schizophrenia-based vignette as very or somewhat likely to be a nervous breakdown. A substantial percentage (36.3%) even sees this scenario as very or somewhat likely a part of the normal ups and downs of life or likely to be a physical illness (51.5%). Finally, a small but significant group gave a 'don't know' response (7.6%).

With regard to depression, respondents were likely to see the person in the depression-based vignette as likely having a mental illness (70.9%), yet over half (65.7%) of the respondents said the person was likely to be experiencing part of the normal ups and downs of life, a nervous breakdown (62.0%), or a physical illness (63.3%). Asking respondents directly whether this person exhibited a major depression elicits more agreement with over 90% responding this was likely or very likely. Overall, public conceptions of the symptoms and behaviors of mental illnesses are quite varied.

Given the heterogeneity in the public's recognition of mental illness, it is not surprising that these disorders are attributed to a variety of causes. Data from the 2006 GSS reveal that a large percentage of respondents accept medical explanations for mental health problems. Almost 90% respond that it is very or somewhat likely that the illness in the schizophrenia-based vignette is caused by a chemical imbalance in the brain, and almost three-quarters (71.4%) respond that it is likely to be caused by a genetic or inherited problem. Psychosocial explanations are also widely accepted, with 85.4% of respondents seeing stress as a likely cause of the illness. The profile is similar for depression but with slightly lower percentages of individuals endorsing chemical imbalances (79.9%) or genetics (63.7%) and more identifying stress (93.6%) as a likely cause (again, available on the ICMHSR website, http://www.indiana.edu/~icmhsr/).

Although the public embraces biological or medical explanations of mental illness, the results show that other explanations of deviant behaviors are also accepted. Almost one-third report that these problems are likely caused by bad character (32.4% for schizophrenia, 31.5% for depression), over one-third cite the way [name] was raised (35.1% and 40.6%, respectively), and a small but still sizable group point to God's will (14.9% and 12.3%, respectively).

These responses to scenarios of mental illness suggest that public beliefs about mental illness and its underlying causes are complex. This result is no surprise given early prior work by many sociologists, psychologists, and anthropologists who have documented the persistence of supernatural or moral causes in modern societies and the incorporation of scientific causes in traditional societies (e.g., Davis, 1963; Murdock, Wilson, & Frederick, 1978).

Research on illness attributions has been based in part on a number of unsubstantiated assumptions, especially an either-or approach that individuals can only replace one set of etiological beliefs with another or that illness is seen as a punishment for wrongdoing only when the social order coincides with the moral order (Fosu, 1981; Lieban, 1977). However, as Pflanz and Keopp (1977) contend, there may be layers to individuals' understanding of illness. Given the nature of serious mental illness, the onset of behavioral problems is likely to evoke complicated responses, tapping many layers of beliefs. With this diversity in attribution, individuals' responses and coping with mental illnesses resulted in their contacting many different sources of help and using different pathways to care.

What Role Does Culture Play in Modeling Pathways to Care?

A fundamental problem for the sociology of mental health is that culture (e.g., attitudes, beliefs, values) has not consistently been shown to affect the use of services. Some ethnographic research, usually focused on ethnic groups, describes how cultural understandings and norms shaped the response to the onset of problems. Perhaps the most well-known of these studies is Uehara's (2001) analysis of the role of culture in the responses of a Cambodian family to their loved one's onset of mental health problems, defined as "spirit invasion." Uehara describes the interactions between illness beliefs, structural conditions, and sequencing of events that shape a complex response and pivotal actions (see also Uehara, 2007). Yet, most survey-based studies rarely find significant effects of beliefs or cultural predispositions once need is controlled. Even more curious in quantitative studies is that individuals often reported high levels of support for treatment, in contrast to low service utilization levels (e.g., see Pescosolido & Olafsdottir, 2010 for a review). The standard social science contention is that beliefs and attitudes do not equate well with behavior, implying that culture plays a minor role.

These considerations have led to a curious bifurcation of research findings by method and to many claims about the lack of utility of cultural ideologies in shaping health care decision-making (Pescosolido & Olafsdottir, 2010). Yet, equating culture narrowly only with race and ethnicity represents a theoretical and methodological misstep. For example, the relatively new area in psychology of cultural neuroscience refers only to the study of how minority populations' cognitive functions and brain structure may differ. The concept of culture has been misappropriated.

A pair of recent studies addresses this situation, asking whether the problem lies in the lessening impact of culture or in how culture has been conceptualized and accessed in utilization research. The first study questioned the measurement of cultural beliefs in understanding use of services. Drawing on the cultural turn in the sociology of culture, 2002 data from the General Social Survey (National Stigma Study – Children, NSS-C) were examined (Pescosolido & Olafsdottir, 2010). Two different cultural variables – *suggestions* and *endorsements* – were conceptualized to understand public predispositions for service utilization. The variable 'suggestions' targeted supportive beliefs about appropriate sources of treatment. Respondents were asked about what, if anything, should be done immediately after they were introduced to a case description of a child with clinical criteria for attention-deficit/hyperactivity disorder (ADHD), major depression, asthma, or daily troubles. No social cues were offered, and the open-ended question recorded individuals' responses verbatim. The findings revealed that cultural suggestions (e.g., the vignette child should receive more discipline, go to a doctor, take medication) appeared to correspond closely to reported utilization levels and were associated with sociodemographic variables thought to be proxies for culture (e.g., race). The variable 'endorsements' aligned with the more usual structure of survey data collection, measuring cultural support for service use through closed-ended questions placed late in the survey and asking respondents to agree or disagree with seeking help from different treatment providers. The results here suggested very high levels of potential service use, far above what epidemiological and health care studies have documented (Wang et al., 2005). Further, there was no statistical association between endorsements and those sociodemographics noted above. Overall, then, these findings pointed to potential problems in the measurement of culture in utilization research, rather than the lack of importance of attitudes, beliefs, and values in how individuals conceptualize and respond to illness. The standard approach to gathering data on cultural attitudes and predispositions in utilization surveys, in terms of placement and format, may poorly assess community culture.

The second study questioned business as usual operationalizations and analyses in mental health utilization research. Rather than examining whether respondents support or do not support the use of a particular provider, we (Olafsdottir & Pescosolido, 2009) described if and how individuals discriminate among different sources of formal treatment. Using data from the 1996 Mental Health Module of the General Social Survey, individual support for the use of (1) general practitioners, (2) psychiatrists, (3) both, or (4) neither were analyzed. Respondent predispositions for service use were constructed to see whether they drew the line between (i.e., discriminated between) general and specialty providers or medical and nonmedical providers. The results showed that despite the unrealistically high levels of endorsement for all options (i.e., compared to previous findings on actual service use in the US population; Wang et al., 2005, noted above), individuals did discriminate among providers based on their evaluation of the problem, underlying causes, and likely consequences. On the one hand, for example, while perceived severity led individuals to endorse any type of formal care, problems attributed to biological causes were significantly more likely to be directed only to general or specialty medical providers (doctors, psychiatrists, and hospitals), rather than counselors. On the other hand, problems attributed to stress elicited cultural responses (i.e., support for or against different options) that pointed exclusively to the utility of nonmedical mental health providers (i.e., counselors) over physicians, whether general or specialty providers (Olafsdottir & Pescosolido, 2009).

These two preliminary explorations suggested that the role of culture in utilization research needs to be considered in a more complex theoretical frame accompanied by a reconsideration of measures and methods. These findings help to unravel the inconsistencies in previous utilization studies about cultural issues. They suggest new directions in conceptualizing whole cultural systems that include beliefs, opinions, and predispositions about responses to mental health problems.

Acknowledging Complexities: Different Modes of Entry

Theories about how individuals use services are based primarily on an underlying assumption that a proactive choice is made and that persons seek care. Clausen and Yarrow's (1955) study suggests that help-seeking and decision-making do not accurately describe the social process of entering the medical or mental health system. As suggested by Pescosolido, Gardner, and Lubell (1998), taking a broader view of how individuals enter treatment, especially mental health care, reveals two distinct literatures on health service use. The main literature is referred to as utilization, help-seeking, or health care decision-making, where the focus is on the individual and implicitly on choices, even in the face of restricted access. The second research tradition comes from those more concerned with the interface between the legal and mental health systems. Often referred to as law and mental health, this area focuses more on the power of legal systems to force individuals into treatment and on pressure from others in the community, however well-intended, to enter treatment (see Hiday, 2011).

Data from a number of these studies support both traditions of mental health service use, but utilization research tends to minimize, even ignore, the latter. Researchers who focus on legal holds and court-ordered treatments report that many individuals with mental health problems are pressured into care by friends, relatives, and coworkers. They enter the treatment system not of their own volition but by the actions of police, other institutional agents (e.g., teachers), or through mechanisms of emergency detention and involuntary commitment (Bennett et al., 1993; Miller, 1988; Perelberg, 1983). Distinctions are made between legal coercion (i.e., formal measures such as involuntary hospitalization used to compel service use and adherence) and extralegal coercion (i.e., pressures from family, clinicians, and friends for entry and staying in treatment). Further, research and experience have shown that the official distinction between voluntary and involuntary commitment is problematic. According to Lidz and Hoge (1993), many individuals hospitalized for mental health problems are persuaded to sign themselves into treatment to increase their freedom in leaving the hospital. Furthermore, the MacArthur Coercion Study shows that almost 40% of those who were admitted voluntarily believed that they would have been involuntarily committed had they not agreed to admission. Of the patients they studied in two mental hospitals, 46% of individuals reported no pressures to enter care, 38% mentioned efforts to persuade them, and 10% reported the use of force (Dennis & Monahan, 1996).

Coercion is not limited to those who are perceived by others to require intensive, inpatient care. In the longitudinal Indianapolis Network Mental Health Study (INMHS) of community influences on early illness careers, individuals were asked to tell the story of how they first came to be treated in a public or private hospital or a Community Mental Health Center (CMHC). Some of the individuals were later diagnosed with a major mental illness (e.g., schizophrenia, bipolar disorder), and others were diagnosed with adjustment disorders. Similar to the MacArthur study, fewer than half of the stories (45.9%) revealed choice in entering treatment that characterizes the dominant theories of health services use. Almost one-fourth (22.9%) of the respondents reported coercion. Other stories were reminiscent of what Lindblom (1959) has called "muddling through," where about one-third (31.2%) of the cases showed that personal agency was virtually absent. Individuals neither resisted nor sought care and often struggled haphazardly to cope with a change in their mental health status. While they perceived problems as resulting from a change in their social circumstances, such as divorce, job loss, or other life event, it was unclear how they reached the mental health system (Pescosolido et al., 1998).

In the INMHS, pathways into care were shaped by both the type of mental health problems and the nature of the social contacts. Individuals with bipolar disorders often described a supercharged state and conflict with others. They were surprised and agitated when others around them, their community ties, wanted them to seek treatment and eventually pressured them into medical care. Those who reported larger, closely knit social networks told stories of coercion because their ties had the social capacity to get individuals into the specialty sector even in the face of resistance (Pescosolido et al., 1998).

Support for the use of legal coercion to get individuals with mental health problems into the formal system of care is substantial in the USA. According to results from the 1996 GSS, almost two-thirds of the public are willing to use legal means to force individuals with drug abuse problems to see a doctor, almost half report a willingness to do so with individuals described in the vignette as meeting criteria for schizophrenia, and over one-third agree to coercion for individuals with alcohol dependence. Fewer individuals, but still over one-fifth of Americans, report a willingness to coerce those with major depression into medical treatment. About 7% were even willing to use legal coercion for the person with daily troubles who did not meet criteria for any mental health problem (Pescosolido, Monahan, Link, Stueve, & Kikuzawa, 1999).

Acknowledging Complexities: Different Systems of Care

The differential response to mental health problems and to all illnesses is not a process that occurs in isolation from other people. Many individuals with varying backgrounds and expertise can be involved in the process of identifying a mental health problem, providing advice or consultation, and taking part in the person's illness career. Kleinman (1980) has described three systems of care: the lay system,

Table 24.1 The range of choices for medical care and advice

Option	Advisor	Examples
Modern medical	M.D.s, osteopaths, general practitioners, specialists, allied health professions	Physicians, psychiatrists, podiatrists, optometrists, nurses, midwives, opticians, psychologists, druggists, technicians, aides
Alternative medical practitioners	Traditional healers	Faith healers, spiritualists, shamans, curanderos, diviners, herbalists, acupuncturists, bonesetters, granny midwives
Nonmedical professionals	Clergymen, social workers	
	Legal agents	Police, lawyers
	Supervisors	Bosses, teachers
Lay advisors	Family	Spouse, parents
	Neighbors	
	Friends	
	Coworkers, classmates	
Other	Self-care	Nonprescription medicines, self-examination procedures, folk remedies, health foods
None		

Source: Pescosolido (1992). Reprinted with permission

the folk system, and the formal medical care system. Table 24.1 offers a more detailed listing of the options, types of advisors, and examples of advisors within each option that exist in most, if not all, societies (Pescosolido, 1992). The options are the same whether the problem is physical or mental, in part because mental health problems are often first understood as physical problems. For others, the problem may be defined in terms of social relations, such as a problem with a significant other, that may be handled with advice from someone other than a psychiatrist. According to the stories reported in the Indianapolis Network Mental Health Study, few individuals initially saw the problem as a mental health one. Instead, they attributed problems to a wide variety of stressors in their lives such as difficult marriages, problematic bosses, troubled children, and conflicts with their parents. Table 24.1 indicates that individuals may try to deal with illness on their own, engaging in a variety of coping practices to alleviate symptoms (Pearlin & Aneshensel, 1986). They may resort to vitamins, over-the-counter medications, home remedies, prayer, exercise, or folk practices. However, primary care practitioners may be in a position to recognize, diagnose, and treat problems and selectively refer patients to mental health specialists. Recent reforms in the health care sector are directed to strengthening primary care, with clinicians accessing care and coordinating treatment with other providers, especially for individuals with complex chronic illnesses.

As one of the first large-scale, population-based, representative sample surveys using a dynamic, community-based perspective of health care use, the Mental Health Care among Puerto Ricans study (MHCPR; Alegría et al., 1991) provides new and important information on the nature and extent of the use of a wide variety of advisors and practices in response to mental health problems. Using these data here for our purposes, we find that a fair amount of stability in the level of use existed across two waves of data collection in 1992–1993 and 1993–1994. A large percentage of respondents (40.1% in Wave 1 and 52.3% in Wave 2) talked to a relative when they self-reported that they might have a mental health problem. Although this response is relatively common, it is by no means what all individuals decide to do when they acknowledge that they have mental health problems. Fewer individuals reported that they discussed their problems with friends at each assessment (28.7% and 35.5%, respectively). The use of over-the-counter medications, religious practices, and exercise or meditation was reported by one-fifth to one-fourth of respondents. Their choices also corresponded closely in frequency to generally reported contacts with the formal treatment system. About one-fifth of respondents reported consulting a general practitioner or mental health specialist. Overall, these findings suggest that individuals with mental health problems are likely to draw from a wide variety of sources of help and do not have exclusive, common, or even regular contact with the specialized mental health treatment system.

Acknowledging Complexities: The Rich Variety of Pathways and the Importance of Gateways

The MHCPR also collected data on the ordering of contacts which we present here. Almost two-thirds of those who talked to a relative did so first (65.4% in Wave 1 and 64.2% in Wave 2), but over one-third went first to a physician (36.3% in Wave 1 and 39.1% in Wave 2). A similar percentage consulted a mental health care provider (e.g., psychiatrist, social worker, mental health clinician) for their preliminary medical care contact (30.6% in Wave 1 and 35.3% in Wave 2). The only substantial difference between the two waves was that 39% in Wave 1 and 26.7% in Wave 2 initially contacted a friend. Between one-fifth and one-fourth of those reporting mental health problems went initially to the clergy (24.3% and 20%, respectively).

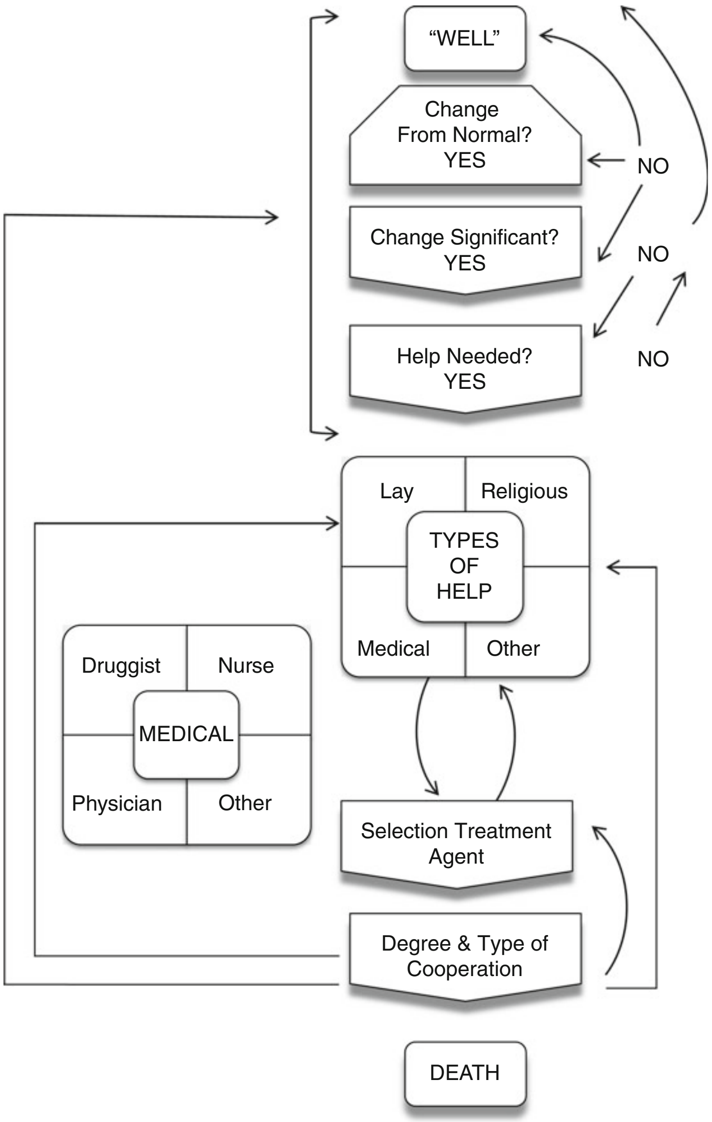
These findings reflect two different ideas not usually taken into account in discussions of help-seeking. First, initial contact reflects a wide range of possible attributed causes and descriptions of the nature of mental health problems. Second, because not all people enter the treatment system voluntarily, the first person who identifies a mental health problem (e.g., the police, a crisis clinician) starts the illness career, rather than being a logical end point in the search for care.

As Fig. 24.2 shows, 20 years after Parsons' scheme, models of the illness career acknowledged different systems and multiple pathways to care (Twaddle & Hessler, 1977, p. 124). If help is needed, lay, religious, or medical advisors can be consulted and, within the medical sector, psychiatrists, primary care physicians, nurses, social workers, and auxiliary providers are available. The process circles back through a number of iterations including a reinterpretation of what it means to be well for a particular person. But the model in Fig. 24.2 does little to tell us about modal pathways.

In acknowledging multiple pathways, early work by Romanucci-Ross (1977) suggested two distinct hierarchies of resort. For those she studied in Melanesia, an acculturative sequence started with physicians or nurses. If no relief occurred, individuals moved to Western religious healers, practitioners, and advisors. Finally, if the search continued, native religious practitioners and advisors were sought. In the counter-acculturative sequence, individuals tried home remedies first, followed by visits to traditional indigenous healers, and finally, if all else failed, going to a hospital. Romanucci-Ross suggested that those acculturated to modern approaches to illness chose formal services first and fell back on older cultural modes of responding when a "cure is not forthcoming" or "earlier choices are exhausted." Both Janzen and Arkinstall's (1978) study of the "quest for therapy" in Zaire and Young's (1981) investigation of the decision process in a small Mexican village followed this tradition of describing and modeling the illness process. Young found four critical factors in structuring the process of dealing with an illness: (1) the seriousness of the illness, (2) knowledge about an appropriate home remedy, (3) faith in the effectiveness of folk treatment as opposed to medical treatment for that illness, and (4) the balance between the expense of alternatives and available resources.

This approach finds contemporary voice in Stiffman's Gateway Provider Model (Stiffman, Pescosolido, & Cabassa, 2004), which focuses on adolescents and the importance of the entry point for treatment of mental health problems. The first contact considered was critical in shaping the utilization pathway and illness career trajectory. Brown, Riley, and Wissow (2007) found that the primary care physician who represented the initial contact to treatment mattered a great deal. When adolescents visited primary care physicians who felt burdened by dealing with psychosocial problems or who had fewer ties to specialty providers, they were less likely to refer adolescents for mental health care.

Fig. 24.2 Twaddle and Hessler's illness career model (1977)



Some mental health models (e.g., Help-Seeking Decision-Making Model; Goldsmith, Jackson, & Hough, 1988) merge a concern with charting stages with correlates of use from models such as the Health Belief Model (Strecher et al., 1997) and the Sociobehavioral Model of Health Care (Andersen, 1995). Although progress is apparent, two problems still exist. First, although these models acknowledge that individuals might skip over stages or repeat them, a step-by-step ordering or stage approach continues to pervade attempts to model the dynamics of the illness career. Second, there is little theoretical guidance about how, when, and why different factors from the correlation models intervene during the process of coping with illness. Are social class differences more pronounced in interpreting the meaning of a symptom than in evaluating whether or not to seek formal care? In essence, current attempts to blend dynamic and correlational models move in the right direction but are trapped in the same theoretical categories that faced Parsons and those who developed contingency models.

These blended models tend to impose a single, logical order and decision-making framework on a process that is often disorderly and lacks rational stage-by-stage planning.

The Dynamic Social Organization of Mental Health Contacts

Prior work, then, suggests a need to (1) study process without abandoning the search for how use is shaped by a variety of social, cultural, medical, and economic contingencies and (2) consider multiple possibilities for the types of advisors and pathways to and from different systems of care. Quantitatively oriented attempts to incorporate process will continue to include contingencies of service use that are fundamental to these theories. In contrast, qualitatively oriented approaches will connect rich and textured descriptions of illness behavior to the larger, structural features that shape the process of responding to physical and mental health problems. Theoretical, methodological, and statistical tools are now available for researchers to venture beyond this division between descriptive, qualitative models and correlational, quantitative models.

The Network-Episode Model

The Network-Episode Model (NEM) draws from the strengths of both dynamic and contingency models (Pescosolido, 1991, 1992, 2006, 2011; Pescosolido & Boyer, 1999, 2010; see Fig. 24.3 for the NEM II). The model moves away from contingencies and stages to streams of illness behavior incorporating changing community conditions and treatment system possibilities.

In its second phase, the NEM has four basic characteristics. First, rather than impose a rigid ordering of the process of coping with illness or the nature of the process, important research questions target understanding the illness career as patterns and pathways to and from the community and the treatment system, the degree to which individuals resort to different pathways, the continued use of services and outcomes, and when, how, and under what conditions individuals shift from invoking standard cultural routines and move into a rational choice-based calculus.

Second, these patterns and pathways are neither static nor random. Both the social support system and the treatment system are ongoing streams that influence and are influenced by the illness career. Dealing with any health problem is a social process that is managed through contacts or social networks that individuals have in the community, treatment system, and social service agencies, including self-help groups, churches, and jails. People face illness in the course of their day-to-day lives by interacting with other people who may recognize (or deny) a problem; send them to (or provide) treatment; and support, cajole, or nag them about appointments, medications, or lifestyle. The composition of this social support system and what it offers are critical.

Third, the treatment sector represents the provision of clinical services characterized by a set of networks of people who provide care, concern, pressure, and problems (Pescosolido, 1997). The NEM conceptualizes the medical system as a changing set of providers and organizations with which individuals may have contact when they are ill (Pescosolido & Boyer, 2010). Thinking about treatment in social network terms allows us to break down the treatment experience by charting the types of providers (e.g., physicians, nurses, rehabilitation therapists) and the nature (supportive, antagonistic, cold, or warm) of experiences that people encounter which affect continuity, adherence, and outcomes. Social networks in treatment create a climate of care that affects both patients and providers alike.

Fourth, the characteristics of the person, their illness, and the organization of care (left-hand side of Fig. 24.3) together shape the illness career and its trajectory in complex ways. All three streams are anchored in the social locations, histories, and problems of people and their networks. Pavalko,

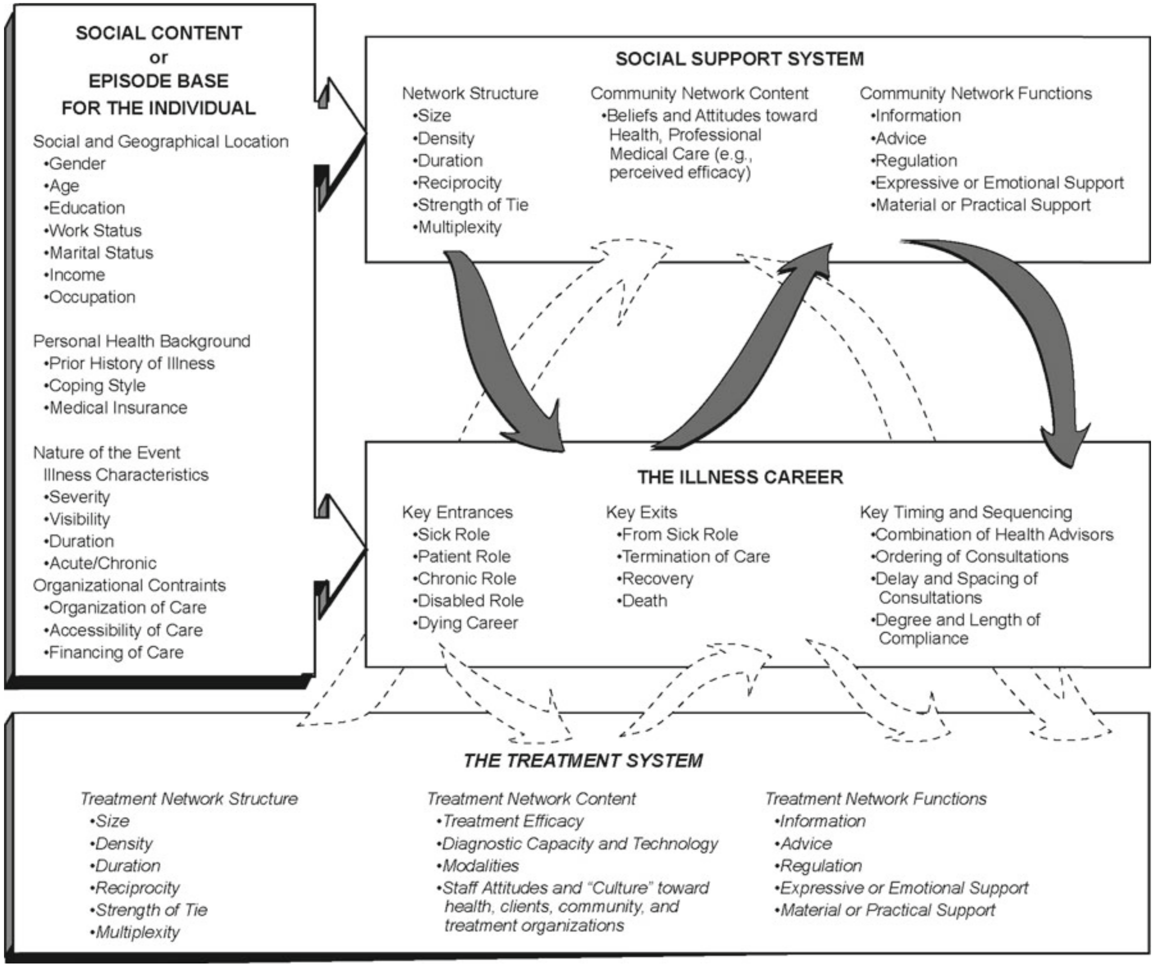


Fig. 24.3 The network-episode model II (Pescosolido, 2006; Pescosolido & Boyer, 1999)

Harding, and Pescosolido's (2007) study of illness careers of those with a mental illness at the Vermont State Hospital in the 1950s showed the transformation in illness careers before and after the era of deinstitutionalization. Social status (e.g., gender and socioeconomic status) was more strongly correlated with length of stay than illness characteristics before deinstitutionalization, but not afterwards. Overall, the findings reveal that mental illness careers unfold over time and are shaped by earlier events. Each person travels their own illness career whose trajectory is influenced by the type and severity of their illness, their status characteristics, institutional treatment systems, and the changing interrelationships among them over time.

Pathways of Care: Some Preliminary Results

Mapping the order in which pathways are activated does not fit usual statistical or econometric approaches. No multivariate technique deals with a long list of categories and thin cells in the many charted pathways to care that are reported by respondents. In the first wave (1992–1993) of the Mental Health Care among Puerto Ricans study (described earlier; $n = 747$), individuals reported the sequence of their sources of care. Four different categories of providers were used (lay, folk, general medical practitioner, and mental health specialist), with one to four possible contacts. Individuals also reported no pathways, no utilization; therefore, an option was also identified.

These pathways into care can be collapsed in different ways to reflect the concerns of researchers, providers, or policymakers. From a clinical or health services research perspective, what matters about these pathways is whether individuals reach the specialty mental health system and, if so, whether they turn to other types of advisors later. To this end, pathways can be collapsed into four types: successes show individuals with mental health problems who reach the specialty mental health sector and do not go elsewhere, except perhaps to notify friends and family; failed pathways use folk, lay, or general practitioners but never reach the mental health sector; successes with referral or rejection show individuals traveling pathways that include mental health treatment but subsequent use of lay individuals or providers in the folk or general medical sector. This third pathway may represent a dissatisfying encounter, nonrecognition, reevaluation, or rejection of the person's mental health problem by the provider, resulting in referrals to general practitioners or others or a rejection by the individual of the advice and treatment offered by mental health professionals. These pathways suggest either a failure of the system or simultaneous use of different systems, possibly at the suggestion or even referral of a mental health provider. For individuals with both mental and physical health problems, pathways to the mental health system and into (either simultaneously or sequentially) the general medical care sector may indicate continuity of care (Hawley, 1997). The fourth alternative, as noted above, is using no pathway, where individuals with a self-reported mental health problem did not contact any provider or source for help or treatment.

Looking at these data from a dynamic perspective, we found that almost one-third (30.8%) of the pathways identified in this study were simple, including only one advisor or practitioner (23.6% used lay advisors only, 5.8% contacted mental health specialists only, 1.5% used folk practitioners only). Other pathways were much more complex, where respondents reported using three or more types of advisors or practitioners in various sequences (11.6%). Of the pathways, 17.5% were considered successes with treatment in the specialty mental health sector and no subsequent use of other advisors or practitioners; 40% were classified as failed pathways, where mental health professionals were never used; an additional 5% were pathways showing success with referral or rejection; and finally, 37% reported doing nothing in response to a perceived mental health problem.

With these four types of pathways, a multinomial logit analysis provided an opportunity to examine the contingencies of the illness career. For illustrative purposes, we selected a set of variables from the NEM II. A series of preliminary analyses were done, and the models were pared down to eight variables,

Table 24.2 Multinomial logit analysis of pathways to care, Mental Health Care Utilization among Puerto Ricans Study ($N = 749$)[a]

	Pathway comparisons			
Independent variable	Success vs. nothing	Failure vs. nothing	Success with referral or rejection vs. nothing	X^2 for variable
Sex (female = 1)	.99	1.79**	2.61*	13.55**
Age	1.00	.99	1.00	4.04
	(1.04)	(.85)	(1.05)	
Attendance at religious services or activities[b]	1.24**	1.23**	1.76**	27.64**
	(1.46)	(1.45)	(2.77)	
Education (in years)	1.04	1.02	1.16**	7.67*
	(1.15)	(1.11)	(1.85)	
Mental health problem[c]				
Probable	1.06	1.47	2.24	4.38
Definite	2.75**	2.55**	9.87**	36.61**
Respondent has private health insurance	1.18	1.10	1.68	1.96
Respondent is self-reliant	.40**	.90	.24**	28.08**
Social isolation index[d]	1.44**	.93	1.47	13.05**
Overall $X^2 = 153.47$; 27 d.f.; $^{**}p < .001$				

$^*p < .05$; $^{**}p < .0$

[a] Unstandarized factor changes reported; standardized factor changes reported where appropriate in parentheses. Factor change coefficients are the factor by which the odds change for a unit (unstandardized) or standard deviation (standardized) change in an independent variable

[b] Responses ranged from 1 = never to 6 = more than once a week

[c] By clinical standards; set of dummy variables; unlikely is omitted category

[d] Sum of five ways in which respondent could be isolated: Being a recent migrant, unmarried, unemployed, never attending church, and having no family or friends. *Note*: None of the respondents were isolated in all five areas

including sex, age, attendance at religious services, education, need, insurance, self-reliance, and social isolation, a measure of network availability.

The findings in Table 24.2 present the factors that shaped the chosen pathways (see Pescosolido, 1992 for a detailed discussion of the use and interpretation of these procedures for services research; see Long, 1987 for detail on the statistical approach). The overall chi-square column indicates that sex, religious attendance, education, need, self-reliance, and social isolation were significantly associated with the kind of pathways traveled by individuals who reported a mental health problem. As the coefficients in Table 24.2 indicate, individuals with clinically defined mental health problems were significantly less likely to do nothing than to travel successful pathways to the mental health system. Consistent with prior studies, then, mental health need is a salient predictor of service use. What is different, interesting, and important in this analysis of pathways is what is *not seen* in the usual use-no-use framework. Individuals with clinically defined mental health problems (compared to those with low levels of need) were also significantly more likely to travel failed pathways that never reach specialized psychiatric care or to enter the mental health system and proceed to the lay, folk, or general medical sector (compared to no pathway). In analyses not shown, individuals most in need of care came into the mental health sector, but they were also the most likely to reject this treatment in favor of others. Thus, while individuals with mental health problems that would meet DSM-IV criteria were significantly less likely to do nothing, they were equally likely to be successful in entering psychiatric care, to fail to reach specialized mental health care, or to encounter referral or rejection after initial success.

Other findings also revealed that women were significantly more likely to travel failed pathways or move beyond the mental health system than to do nothing or to successfully reach and remain in specialty care. Attendance at religious services significantly decreased the probability of doing nothing. More highly educated individuals were more likely to enter psychiatric care but then left this specialized sector for other referrals or assistance elsewhere. Individuals who reported themselves to be self-reliant were more likely to do nothing than to seek specialized care. Finally, individuals who were socially isolated were more likely to travel successful pathways than to do nothing. Having fewer network ties in Puerto Rico increased the probability of entering the specialty mental health system (see also Pescosolido et al., 1998).

Although this analysis revealed the response to self-reported behavioral/emotional problems as a difficult and complex task, we can begin to connect theories of the illness career to dominant contingency theories. The payoffs for this effort are to show how structure connects to process and to challenge some of the well-accepted but poorly understood findings in mental health services research. More recent studies with a related focus (e.g., persons with dementia, alcohol dependence) have begun to document different trajectories of illness problems and the role of service use (e.g., Carpentier & Bernard, 2011; Judge, Estroff, Perkins, & Penn, 2008; Rogers, Hassell, & Nicolaas, 1999).

Challenges to the Sociological Study of Service Use: A Move to Understanding Treatment Effectiveness

Using the specialty mental health sector early and continuously until a mental health problem is treated effectively or managed results in better outcomes for individuals and for communities, according to the underlying rationale of psychiatry. To that end, models of service use that end at the door of a practitioner do not tell us enough about what happens before individuals get there or what happens to them later. The chronicity of mental and physical problems requires a refocusing on illness careers that connect social interactions and communities that ultimately influence trajectories and outcomes. As we rethink and redesign our studies of how individuals get into care, are unable to do so, or reject the utility of health care system approaches, we need to anticipate what comes next. The directions discussed here suggest two changes. First, each new episode of mental illness occurs in the context of the lived experiences of individuals and communities. New sociological investigations should step back and reconsider what that means, given recent work on culture, the life course, and social connectedness. Second, any effective system of mental health services must take into account the multiple influences that are involved as individuals or others around them recognize a mental health problem, initiate care, and sometimes take very different pathways into the formal treatment system. For example, rather than bifurcated studies of how individuals use the internet in response to mental health problems, and studies of utilization using dominant models or social network analyses, more conceptualization is needed about the complexity of information that accompanies the responses to the onset of psychiatric problems. Study designs need to anticipate and incorporate how the interface of individuals, families, community (geographic, virtual, or otherwise networked), and treatment systems operate to shape the trajectory of illness careers.

What individuals do once they leave care is an extremely important issue about which we have insufficient understanding and evidenced-based interventions to achieve continuity and sustained good outcomes. As substantial changes occur in the organization and financing of the health care system, with new incentives and different choices, efforts to understand what happens to individuals and families in the process of entering treatment present a major challenge for mental health services research.

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Chapter 25
Labeling and Stigma

Bruce G. Link and Jo C. Phelan

During the decade since the first edition of the *Handbook of the Sociology of Mental Health*, there have been enormous advances in theories, concepts, and measures relevant to the stigma experienced by people with mental illnesses. The movement to understand stigma processes more deeply can be seen as a response to questions we posed more than a decade ago. The questions derived from Patricia Deegan's now classic observation that "it is important to understand that we are faced with recovering not just from mental illness, but also from the effects of being labeled mentally ill" (Deegan, 1993, p. 10). Deegan's personal account of her experience with mental illness reveals that some people who develop mental illnesses also experience stigmatization, and when they do, the consequences can be as painful and debilitating as the illness itself. Why should this be the case? How do we understand the origins and consequences of stigma?

Core concepts used by mental health sociologists to engage these questions are labeling and stigma. When applied to a person, a label can be described as a definition that identifies what type of person he or she is. Labels can be "official" when they are formally applied in a sanctioned official process or "informal" when they are used in day-to-day interactions but not officially processed and recorded. With respect to stigma, Goffman famously defined the term as an "attribute that is deeply discrediting" and that reduces the bearer "from a whole and usual person to a tainted, discounted one" (Goffman, 1963, p. 3). Interest in labeling and stigma has grown at an accelerating rate since Goffman's seminal *Stigma: Notes on the Management of Spoiled Identity* was first published in 1963 and the debate about labeling emerged in the literature of the 1960s. One indicator of this enormous increase in interest is the number of published articles with the word "stigma" in the title or abstract. The number in 1980 stood at 19 for MEDLINE and 14 for PsycINFO but rose dramatically by the end of the century in 1999 to 114 for MEDLINE and 161 for PsycINFO (Link & Phelan, 2001). Incredibly, by 2010 the numbers were more than five times as high as in 1999: 758 for MEDLINE and 851 for PsycINFO .

This chapter reviews evidence concerning stigma-associated mental illness within a sociological framework, incorporating research from anthropology and psychology as it is relevant to the frame-

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B.G. Link (✉)
Departments of Epidemiology and Sociomedical Sciences, Mailman School of Public Health, Columbia University,
722 West 168th Street, Room 1609, New York, NY 10032, USA
e-mail: BGL1@Columbia.edu

J.C. Phelan
Department of Sociomedical Sciences, Mailman School of Public Health, Columbia University,
New York, NY, USA

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work. A very large body of literature on stigma has developed within these related disciplines, and sociologists would be well served to consult it directly. Here we draw on advances in those disciplines, focusing on their importance to a sociological approach to stigma. The chapter begins by summarizing the development of thinking about labeling and stigma over the past half century within the field of the sociology of mental health. This background leads to our consideration of recent advances in the conceptualization of stigma as we ask: What is stigma? How do different stigmatizing circumstances (mental illness, obesity, facial disfigurement) resemble and differ from one another? Why do people stigmatize? In keeping with the *Handbook*'s emphasis on social class and socioeconomic status (SES), we introduce the concept of "stigma power" and apply this new concept to the questions of "What do people gain by stigmatizing others?" and "How is stigma power exercised?" Finally, we consider the steps people take to avoid, mitigate, or overcome stigma, drawing in particular on Thoits' (2011) consideration of stigma resistance.

Background: The Labeling Debate and Stigma

Labeling Theory: Scheff's Theory and Gove's Response

The issue of whether and to what extent stigma might be important in the area of mental illness was brought into sharp relief by a debate about labeling that flourished in the 1960s and 1970s. Scheff (1966) constructed a formal labeling theory of mental illness that strongly endorsed labeling processes in the production of stable mental illnesses. The debate involved both informal labeling processes (e.g., spouses' labeling of their partners) and official labeling through treatment contact (e.g., psychiatric hospitalization). In Scheff's theory, the act of labeling was strongly influenced by the social characteristics of the labelers and the person being labeled and by the social situation in which their interactions occurred. He asserted that labeling was driven as much by these social factors as it was by anything that might be called the symptoms of mental illness. Moreover, according to Scheff, once a person is labeled, powerful social forces come into play to encourage a stable pattern of "mental illness." Key aspects of Scheff's theory are captured in the following quotation:

> In a crisis, when the deviance of an individual becomes a public issue, the traditional stereotype of insanity becomes the guiding imagery for action, both for those reacting to the deviant and, at times, for the deviant himself. When societal agents and persons around the deviant react to him uniformly in terms of the stereotypes of insanity, his amorphous and unstructured rule-breaking tends to crystallize in conformity to these expectations, thus becoming similar to behavior of other deviants classified as mentally ill and stable over time. The process of becoming uniform and stable is completed when the traditional imagery becomes a part of the deviant's orientation for guiding his own behavior. (Scheff, 1966, p. 82)

Critics of the theory, especially Walter Gove, took sharp issue with Scheff's characterization of the labeling process. Gove argued that labels are applied far less capriciously and with many fewer pernicious consequences than the labeling theory claims (Gove, 1975). In Gove's view, research supported the idea that if people with mental illnesses are rejected, it is in response to their symptomatic behavior rather than a result of any label they receive. Moreover, he contended that labeling is not an important cause of further deviant behavior. "The available evidence," Gove concluded, "indicates that deviant labels are primarily a consequence of deviant behavior and that deviant labels are not a prime cause of deviant careers" (Gove, 1975, p. 296).

For some period between the late 1970s and early 1980s, professional opinion swayed in favor of the critics of labeling theory. Certainly, the dominant view during that time was that stigma associated with mental illness was relatively inconsequential. For example, when a group of expert stigma researchers was summoned to the National Institute of Mental Health in 1980 to review evidence about the issue, the term "stigma" was intentionally omitted from the title of the proceedings. Apparently, the argument that behaviors rather than labels are the prime determinants of social rejection was so forcefully articulated that the editors of the proceedings decided that stigma was not an appropriate designation when "one is referring to negative attitudes induced by manifestations of psychiatric illness" (Rabkin, 1984, p. 327). It was within this context that the so-called modified labeling theory emerged in response to the then dominant anti-labeling theory stance.

Modified Labeling Theory

In the 1980s, Link and colleagues developed a "modified" labeling theory that derived insights from the original labeling theory but stepped away from the claim that labeling is a direct cause of mental illness (Link, 1982, 1987; Link, Cullen, Struening, Shrout, & Dohrenwend, 1989). Instead, the theory postulated a process in which official labeling through treatment contact and the stigma that accompanies such labeling jeopardize the life circumstances of people with mental illnesses by harming their employment chances, social networks, and self-esteem. By creating disadvantage in these domains and others like them, people who have experienced mental illness labels are put at greater risk of the prolongation or reoccurrence of mental illnesses. The "modified" labeling theory also provided an explanation for the way in which labeling and stigma might produce these effects and how key concepts and measures could be used in testing the explanation with empirical evidence.

The theory begins with the observation that people develop conceptions of mental illness early in life as part of routine socialization (Angermeyer & Matschinger, 1996; Scheff, 1966; Wahl, 1995). Once in place, people's conceptions become a lay theory about what it means to have a mental illness (Angermeyer & Matschinger, 1994; Furnham & Bower, 1992). People form expectations as to whether most people will reject an individual with mental illness as a friend, employee, neighbor, or intimate partner as well as expectations as to whether most people will devalue a person with mental illness as less trustworthy, intelligent, and competent.

These beliefs have an especially poignant relevance for a person who then develops a serious mental illness because the possibility of devaluation and discrimination becomes personally relevant. If one believes that others devalue and reject people with mental illnesses, one must now fear that this rejection applies to oneself. The person may wonder, "Will others look down on me, reject me because I have been identified as having a mental illness?"

To the extent that this perception becomes a part of a person's world view, it can have serious negative consequences. Expecting and fearing rejection, people who have been hospitalized for mental illnesses may act less confidently and more defensively, or they may simply avoid potentially threatening social contacts altogether. The result may be strained and uncomfortable social interactions with potential stigmatizers (Farina, Allen, & Saul, 1968), more constricted social networks (Link et al., 1989), compromised quality of life (Markowitz, Angell, & Greenberg, 2011; Rosenfield, 1997), low self-esteem (Link, Castille, & Stuber, 2008; Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001, 2002; Wright, Gronfein, & Owens, 2000), high depressive symptoms (Link, Struening, Rahav, Phelan, & Nuttbrock, 1997; Perlick et al., 2007), unemployment and income loss (Link, 1982, 1987), poor treatment adherence (Sirey, Bruce, Alexopoulos, Perlick, Raue, et al., 2001), and treatment discontinuation (Sirey, Bruce, Alexopoulos, Perlick, Friedman, et al., 2001). The concepts and measures associated with modified labeling theory provided a basis for empirically interrogating stigma processes and thereby contributed to the growth of interest in these issues within the sociology of mental health.

Understanding the "Package Deal"

Evidence from modified labeling theory and other approaches to labeling, stereotyping, and rejection strongly suggest that negative consequences associated with labeling are experienced by many people with mental illnesses. At the same time, evidence from a voluminous body of research indicates that a variety of psychotherapies and drug therapies can be helpful in treating many mental illnesses. Thus, existing data simply do not justify a continued debate concerning whether the effects of official labeling are positive or negative – clearly they are both.

Rosenfield (1997) was the first to bring this point to light by examining the effects of both treatment services and stigma in the context of a model program for people with severe mental illnesses. She showed that both the receipt of services (specific interventions that some people in the program received and others did not) and stigma are related – in opposite directions – to multiple dimensions of a "quality of life" measure. Services had positive effects on dimensions of quality of life such as living arrangements, family relations, financial situation, safety, and health; stigma had equally strong negative effects on such dimensions. Subsequent longitudinal studies supported Rosenfield's conclusion in showing both dramatic symptom reductions with treatment and enduring effects of stigma on critically important outcome variables (Link et al., 1997, 2008).

Thus, the evidence points to a bundling of labeling effects that currently are joined in a kind of "package deal." People seeking mental health treatment navigate this deal in one way or another. Sometimes they do so in ways that mental health professionals think they should not, such as avoiding treatment, denying their illness, or ending treatment earlier than their treatment team thinks they should do so. A kind of collective finger wagging ensues that at times shifts from admonitions and warnings to using the "leverage" of housing or financial benefits to ensure treatment compliance (Monahan et al., 2001). If leverage fails, more direct forms of coercion also are possible, such as involuntary inpatient commitment or the ascendant "outpatient commitment" in which individuals are mandated to treatment in community-based clinic settings (Hiday, 2003; Link, Epperson, Perron, Castille, & Yang, 2011; Phelan, Link & Tehranifar 2010). Of course, there is an intense debate about the utility and effectiveness of leverage and coercion, with some believing that these practices are necessary (Torrey & Zdanowicz, 2001) and others seeing them as counterproductive (e.g., Pollack, 2004).

A sociological perspective contributes to this debate by showing that there is indeed a package deal and that people face real choices and real dilemmas as they navigate its parameters. It also suggests that the ingenuity invested in constructing strategies to leverage compliance or to coerce it needs to be complemented or replaced by equally creative efforts to substantially change the balance of the package deal to one that delivers more benefit and less stigma. When that happens, it is likely that more people will choose treatment, and less leveraging and coercion will be required.

Mental health sociologists can contribute to this development by continuing to "unpack" the package deal so that its existence is more widely acknowledged and so that our understanding of the mechanisms that undergird it is more complete. Recent research by mental health sociologists engages precisely these issues. For example, Markowitz et al. (2011) elaborate the modified labeling theory to probe more deeply into the mechanisms by including the reflected appraisals of family members in their empirical analysis. A particularly thought-provoking and significant feature of their work is the incorporation of the symptoms of the illness, which influence appraisals by relatives and then, in turn, the reflected appraisals of the person with mental illness, appraisals that then have consequences for outcomes such as self-efficacy and quality of life. The experimental work of Phelan and colleagues investigates the extent to which a mental illness label reduces influence in interactions and engenders behavioral social distance by integrating paradigms from the expectation-states tradition in sociology (Berger, Bernard, & Zelditch, 1972) with findings on the sources of stigma in interaction processes. Identifying sources, probing mechanisms, and evaluating novel attempts to respond to stigma will deepen our understanding of stigma and enable us to address the stigma processes that affect people with mental illnesses.

Conceptual Advances in and Integration of Stigma Concepts

Almost every aspect of the stigma concept that has been put forward since Goffman's seminal book can be found somewhere in that treatise. The conceptual advances we point to below represent a codification of concepts that address current concerns and can assist in the effective use of stigma concepts. We organize these developments as responses to the following questions and the concepts associated with them: What is stigma? How do stigmatizing circumstances differ from each other? Why do people stigmatize? What do people gain from stigmatizing others? What are the mechanisms of discrimination that disadvantage people who are stigmatized? And how do people respond to stigmatization?

What Is Stigma?

In the literature on stigma, the term has been used to describe what seem to be several quite different concepts. It has been used to refer to the "mark" or "label" that is used as a social designation, to the linking of the label to negative stereotypes, or to the propensity to exclude or otherwise discriminate against the designated person. Even Goffman's (1963) famous essay includes several somewhat different, albeit very instructive, definitions. As a consequence of this variability, there has been confusion as to what the term means.

Additionally, an intense dissatisfaction with the concept emerged in some circles for at least two reasons. First, it was argued that the stigma concept identifies an "attribute" or a "mark" as residing in the person – something the person possesses. The objection to this conceptualization was that it took for granted the process of affixing labels and did not interrogate the social processes that led to such labeling (Fine & Asch, 1988). In particular, far too little attention had been focused on the selection of a single characteristic for social salience from a vast range of possible characteristics that might have been identified instead. Second, it was argued that too much emphasis had been placed on cognitive processes of category formation and stereotyping and too little on the broad and very prominent act of discrimination and the influence that such discrimination has on the distribution of life chances (Oliver, 1990).

In light of this confusion and controversy, Link and Phelan (2001) put forward a conceptualization of stigma that recognizes the overlap in meaning between concepts like stigma, labeling, stereotyping, and discrimination. This conceptualization defines stigma in the relationship *between* interrelated components of labeling, stereotyping, separating, emotional reactions, status loss, and discrimination. This approach also responds to prior criticisms by making the social selection of designations a prominent feature, by incorporating discrimination into the concept, and by focusing on the importance of social, economic, and political power in the production of stigma. Link and Phelan describe their conceptualization as follows:

> In our conceptualization, stigma exists when the following interrelated components converge. In the first component, people distinguish and label human differences. In the second, dominant cultural beliefs link labeled persons to undesirable characteristics – to negative stereotypes. In the third, labeled persons are placed in distinct categories so as to accomplish some degree of separation of "us" from "them." In the fourth, labeled persons experience status loss and discrimination that lead to unequal outcomes. Stigmatization is entirely contingent on access to social, economic, and political power that allows the identification of differentness, the construction of stereotypes, the separation of labeled persons into distinct categories, and the full execution of disapproval, rejection, exclusion, and discrimination. Thus, we apply the term stigma when elements of labeling, stereotyping, separation, status loss, and discrimination co-occur in a power situation that allows them to unfold. (Link & Phelan, 2001, p. 367)

A detailed exposition of each of these components is available elsewhere (Link & Phelan, 2001); here we provide a brief description of each component, connecting each component to the stigma associated with mental illness. These components are presented in an order that we think helps communicate the stigma concept we seek to elucidate. The order is not meant to suggest that the first one listed temporally occurs first, the second next, and so on. Instead, it is likely that there are strong feedback loops among the components that achieve a mutual influence among them (Link & Phelan).

Distinguishing and labeling differences. The vast majority of human differences, for example, hairy ears or vegetable preferences, are not considered to be socially relevant. However, some differences, such as skin color and sexual preferences, currently are accorded a high degree of social salience. Both the selection of salient characteristics and the creation of labels for them are social achievements that need to be understood as essential components of stigma. The Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association represents an attempt by professionals to decide which human differences should be selected for designation as mental illnesses and which should not. This social selection of human differences and social production of designations is particularly apparent when the criteria are contested, as they were when homosexuality was removed from the DSM, and as they are now with respect to whether or not normal human emotional states such as sadness are being pathologized (Horwitz & Wakefield, 2007).

Associating differences with negative attributes. In this second component of stigma, the labeled difference is linked to negative stereotypes. For example, one common stereotype is that a person who has been hospitalized for mental illness is likely to commit violent acts. Other powerful stereotypes associated with mental illnesses involve negative inferences about competence, cleanliness, and trustworthiness.

Separating "us" from "them." A third component of the stigma process occurs when social labels connote a separation of "us" from "them." For example, certain ethnic or national groups (Morone, 1997), people with mental illness, or people with a different sexual orientation may be considered fundamentally different kinds of people from "us." Mental illnesses are particularly intriguing with respect to this component of stigma. On the one hand, people with mental illnesses originate within families of all different races, ethnicities, and political persuasions; live with mothers, fathers, and siblings; and, therefore, are buffered to some degree by these associations from becoming a sharply demarcated as "them." On the other hand, the designation of differentness can be more powerful than these associations. For example, to the extent that a person who develops schizophrenia "*is*" a "*schizophrenic,*" the idea that he/she is a different sort of person than the rest of "us" becomes prominent, and the separation component becomes a central aspect of the stigma of schizophrenia.

Emotional responses. The Link and Phelan conceptualization of stigma subsequently was expanded to include an additional component of emotional responses. According to Link, Yang, Phelan, and Collins (2004), emotions of anger, irritation, anxiety, pity, and fear are likely from the vantage point of a stigmatizer. These emotions are relevant to stigma first because they can be detected by persons who are stigmatized, thereby making a significant statement about the responses of stigmatizers salient to those who are stigmatized. Second, emotional responses may shape subsequent behavior toward the stigmatized person or group through processes identified by attribution theory (Weiner, Perry, & Magnusson, 1988). From the vantage point of the person who is stigmatized, emotions of embarrassment, shame, fear, alienation, or anger are possible. Thomas Scheff (1998) has argued, for example, that the emotion of shame is central to stigma and that shaming processes can have powerful and hurtful consequences for stigmatized persons.

Status loss and discrimination. This component of the stigma process concerns acts by which people are labeled, set apart, and linked to undesirable characteristics. These actions necessitate that a rationale be constructed for devaluing, rejecting, and excluding these persons. This can occur in several ways that we describe more fully below.

The dependence of stigma on power. A unique component of the Link and Phelan (2001) conceptualization of stigma is the idea that it is entirely dependent on social, cultural, economic, and political power. Lower-power groups (e.g., psychiatric patients) may label, stereotype, and separate themselves from higher-power groups (e.g., psychiatrists), perhaps by labeling psychiatrists as "pill pushers," stereotyping them as "cold" and "indifferent," and perceiving them as a distinct group that is separate from "us." However, in this situation, stigma as we define it does not exist because the potentially stigmatizing group (e.g., psychiatric patients) does not have the social, cultural, economic, and political power to imbue their cognitions (labels and stereotypes) with serious discriminatory consequences. The psychiatrists are not severely damaged materially by patients' views of them.

Having identified the components of stigma and the processes that connect these components that are shared in common across multiple types of stigmatizing circumstances, we turn now to the issue of how distinct types of stigmatizing circumstances differ.

How Do Stigmatizing Circumstances Differ from Each Other?

Whereas Link and Phelan seek to conceptualize what stigma "is," a set of concepts developed by Jones and associates (1984) is especially useful for understanding differences among stigmatizing circumstances. In *Social Stigma: The Psychology of Marked Relationship*, they conceptualize six dimensions that can be used to characterize a particular stigmatizing circumstance and to assess how it differs from other such circumstances: concealability, course, disruptiveness, aesthetic qualities, origin, and peril. In this section, we explicate each of these dimensions and relate them to mental illness stigma.

Concealability refers to how apparent or detectable a characteristic is to other people. Some stigmatizing circumstances like mental illnesses or prison incarceration are concealable (at least to some degree), whereas others are not, such as facial disfigurement and limb loss. People with mental illnesses have to decide whether and to whom to disclose their condition, how much information to disclose, and what timing should be used for any disclosure. For example, for a person who has been hospitalized for an episode of schizophrenia, a dating situation would likely raise many issues regarding concealment of this history. People with mental illnesses also may have to concern themselves with circumstances in which their mental health condition might be revealed, such as to a local pharmacist or general practice physician who notices a prescription for an antipsychotic medication.

Course refers to the extent to which the stigmatizing circumstance is believed to be reversible, the second characteristic that differentiates stigmatizing circumstances from one another. For example, short stature is not reversible, whereas smoking and substance abuse are. With respect to mental illnesses, the course dimension is critical. Consumers of mental health services report that it is particularly demoralizing when a mental health professional informs them they have a chronic, debilitating condition that will ineluctably block their education, capacity to work, and ability to form a family. Although the relatively recent "recovery movement" within mental health services seeks to alter this dictate, this viewpoint is strongly held within the psychiatric profession and the culture more generally. For example, the DSM-IV (American Psychiatric Association, 2000) indicates that schizophrenia remission "is probably not common" and that for the majority who remain ill, "some appear to have a relatively stable course, whereas others show a progressive worsening associated with severe disability" (American Psychiatric Association, 2000, p. 282).

Stigmatizing circumstances can also be differentiated from one another by *disruptiveness*, which is the extent to which such a circumstance strains and adds to the difficulty of interpersonal interactions. For example, people who are in the presence of someone with an extreme facial disfigurement such as a cleft palate may feel uncomfortable and become acutely aware of where their gaze is focused. If a concealable condition is successfully hidden, disruptiveness can be avoided. In general, disruptiveness is probably strongly linked to people's expectations about the way things "should be." When these expectations are challenged, smooth interaction becomes difficult. For people with mental illnesses, the disruptiveness dimension is apparent in Scheff's (1966) concept of mental illness as "residual rule breaking" – the idea that the symptoms of illness violate taken-for-granted rules. This characteristic is quite apparent with respect to psychotic symptoms, such as responding to voices other people cannot hear, but it also applies to affective symptoms like sadness or anxiety that may break "feeling rules" (Thoits, 1985).

When rules or norms are violated, one response is to negatively sanction the transgressor in an effort to get the person to alter his or her behavior and adopt a more normative standard. Reactions to rule breaking are diverse and depend as much on characteristics of the reactor and the situation in which the transgression occurs as they do on the nature of the rule violation. As a consequence, reactions can be inappropriate, harmful, and unfair, thereby contributing to the stigma experienced by people with mental illnesses.

Aesthetics refers to the extent to which different marks elicit an instinctive and affective reaction of disgust. Cleft palate and facial scarring are considered unaesthetic, whereas other stigmatized circumstances are much less so. For most people with mental illnesses, the aesthetics dimension is not particularly salient. However, when a combination of the illness and the life conditions of the person experiencing the illness conspire to erode self-care, aesthetics can be important, for example, the odor and appearance; a person who is both homeless and mentally ill can induce strong reactions from members of the public who encounter the person.

Stigmatizing circumstances also differ with regard to their *origin,* which refers to how it came into being and especially the extent to which the stigmatized person's behavior may have caused the condition. Some circumstances such as short stature and birth defects are thought to be entirely out of the person's control, whereas others such as substance abuse and obesity are not. Mental illnesses currently are contested with respect to this dimension. Over the past two decades, strong public education efforts have been aimed at advancing a biomedical perspective on the origins of mental illnesses, emphasizing genetic and other biological causes of such disorders. The hope of many was that doing so would make mental illness an "illness like any other" and thereby diminish stigma. As described elsewhere in this volume (Chaps. 4 and 6), the medicalization of mental illnesses has enjoyed considerable success in recent years with the public increasing its endorsement of biological and genetic causes of mental illnesses. Unfortunately, this dramatic change has not had the beneficial effect on other aspects of stigma (stereotyping, social distance) that many believed would occur (Pescosolido et al., 2010).

The *peril* dimension differentiates conditions according to the extent to which they induce fear or perceived threat in others. This dimension is quite prominent for people with mental illnesses, especially for people who develop psychosis (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Pescosolido et al., 2010; Phelan, Link, Stueve, & Pescosolido, 2000). The belief that a person with psychosis will do something violent to other people is especially strong and is a major contributor to the desire for social distance from people with mental illness.

Why Do People Stigmatize?

So far we have provided concepts that help us to understand what constitutes stigma and how stigmatizing circumstances differ from one another. Although these conceptual schemes are useful for describing stigma, they do not tell us why people stigmatize others. Phelan, Link, and Dovidio (2008) provide a conceptual scheme that addresses this question. The essence of the answer they provide is that stigmatizing helps people attain ends they desire. They propose three generic ends that people can attain by stigmatizing others: (1) exploitation/domination or *keeping people down*, (2) enforcement of social norms or *keeping people in*, and (3) avoidance of disease or *keeping people away*.

Exploitation and domination. Wealth, power, and high social status can be attained when one group dominates or exploits another. Ideologies then develop that legitimate and help perpetuate these inequalities. These inequalities can become taken for granted and even accepted by those who are disadvantaged by them (Jost & Banaji, 1994). Phelan et al. (2008) argue that exploitation and domination are facilitated by stigmatization and constitute a way of "keeping people down."

Enforcement of social norms. People construct a labyrinth of written and unwritten rules governing everything from how business deals can be conducted to how people should form a line at a bus stop. Some degree of investment in norms like these develops; people come to count on them and to be outraged or annoyed when they are violated. Failure to comply with these norms is often cast in terms of the flawed morality or character of the transgressor (Goffman, 1963; Morone, 1997), and stigma processes are deployed as a corrective mechanism. One way that stigma is useful, then, is that it imparts a stiff cost – strong social disapproval – that can make subsequent transgressions less likely. If conformity then ensues, the transgressor may be allowed to rejoin the in-group, achieving what Braithwaite (1989) termed "reintegrative shaming." In this use of stigma, people are *kept in* by influencing the behavior of the norm violator. A related use is that the people around the norm violator are *kept in* by learning the boundaries of acceptable behavior and by observing the stern example of what happens to someone who goes beyond those boundaries (Erikson, 1966).

Avoidance of disease. Many illnesses and disabilities are stigmatized, including mental retardation; physical illnesses such as cancer, skin disorders, and AIDS; and physical disabilities and imperfections such as missing limbs, paralysis, blindness, and deafness. These conditions for the most part do not seem to be stigmatized in order to exploit or dominate or in order to directly control behavior and enforce norms. Kurzban and Leary (2001) (also see Neuberg, Smith, & Asher, 2000) argue that there are evolutionary pressures to avoid members of one's species who are infected by parasites. Parasites can lead to "deviations from the organism's normal (healthy) phenotype" (Kurzban & Leary, 2001, p. 197) such as asymmetry, marks, lesions, and discoloration; coughing, sneezing, and excretion of fluids; and behavioral anomalies due to damage to muscle-control systems. They argue that the advantage of avoiding disease "might have led to the evolution of systems that regard deviations from the local species-typical phenotype to be unattractive"; that systems might develop wherein people would "desire to avoid close proximity to potentially parasitized individuals"; and that "because of the possible cost of misses, the system should be biased toward false positives, and this bias might take the form of reacting to relatively scant evidence that someone is infested" (Kurzban & Leary, 2001, p. 198).

Why do people stigmatize mental illnesses in particular? In keeping with the strong emphasis in sociological thinking about "residual rule breaking" (Scheff, 1966) and the extension of that thinking through the sociology of emotions to "feeling rules" (Thoits, 1985), we believe that the major reason for the stigmatization of people with mental illnesses is an attempt to *keep people in*. Initial reactions to symptoms are often common sense attempts to alter the rule-breaking behavior by strongly disapproving strange beliefs expressed by people with psychosis, admonishing a person with depression to "snap out of it," or passing favorite foods into the sight lines of a person with anorexia. At the same time, the bizarre behavior of psychosis; the weight loss, enervation, and anhedonia of depression; or the extreme underweight associated with anorexia could stimulate a desire for "disease avoidance." As indicated above, there is little reason to suppose that mental illnesses are stigmatized so that those who suffer from them can be exploited or dominated for pecuniary gain. Keeping people down probably is not, at least initially, a major reason for stigmatizing people with mental illnesses.

Stigma Power: What Do People Gain by Stigmatizing Others?

A novel feature of our definition of stigma (described above) is the incorporation of "power." Successful stigmatization requires power: the ability to construct stereotypes that are broadly endorsed and deeply held and control over jobs, housing, and education to enact discriminatory behavior that has teeth. Thus, it "takes power" to stigmatize.

However, in light of Phelan et al. (2008) consideration of the reasons people stigmatize, we now realize that people achieve outcomes they desire when they stigmatize others. Whether the motive is to *keep people down*, *keep people in,* or *keep people away*, stigma is a useful instrument to accomplish ends that are congenial to the interests for the person who is enacting stigma. Conceived in this way, stigma is a *source of power* that helps the stigmatizer control the stigmatized person and thereby keep them down, in, or away. Thus, we now expand the idea that it "takes power" to stigmatize by adding the notion that stigmatization confers power – "stigma power."

The concept of stigma power can be thought of as one form of what Bourdieu (1987) calls "symbolic power." For Bourdieu, symbolic power is the capacity to impose on others a legitimatized vision of the social world and of the cleavages within that world. Bourdieu developed and used the concept mainly to understand class and class reproduction, adding a cultural element to the understanding of those phenomena.

However, three aspects of Bourdieu's concept are extremely useful with regard to understanding stigma and the power it confers. First, cultural distinctions of value and worth are the critically important mechanisms through which power is exercised. Stigma is in many respects a statement about value and worth made by a stigmatizer about those he or she might stigmatize and, thus, one form of symbolic power in Bourdieu's terms. Second, those who are disadvantaged by the exercise of power are often persuaded, sometimes without realizing it, to accept as valid the cultural evaluations that harm them. With respect to stigma, this is evident in the idea of "internalized" or "self" stigma. Finally, the exercise of symbolic power is often buried in taken-for-granted aspects of culture and thereby hidden, or "misrecognized" as Bourdieu (1990) puts it, both by the people causing the harm and by those being harmed. As we shall see, several of the mechanisms through which stigma power is expressed are silent or "misrecognized" in this way. As we proceed to explicate these mechanisms, we note instances in which misrecognition is likely. We end the section by indicating how these instances are enactments of stigma power.

The Exercise of Stigma Power: How Labeling and Stigma Affect the Lives of People with Mental Illnesses

People who have been hospitalized for serious mental illnesses are disadvantaged when it comes to a general profile of life chances like income, education, psychological well-being, housing status, medical treatment, and health (e.g., Druss et al., 2000; Link, 1987). How does this happen? Although some part of this disadvantage may be due to the directly debilitating consequences of the illness (given existing social circumstances), we attend to ways in which stigma-related processes may be involved, especially the exercise of stigma power.

Status loss. An almost immediate consequence of successful negative labeling and stereotyping is a general downward placement of a person in a status hierarchy. The person is connected to undesirable characteristics that reduce his or her status in the eyes of most others. The fact that human beings create hierarchies is evident in organizational charts, who sits where in meetings, who defers to whom in conversational turn-taking, and so on. One strand of sociological research on social hierarchies, the so-called expectation-states tradition, is particularly relevant to the study of stigma and status loss (Berger, Fisek, Norman, & Zelditch, 1977; Ridgeway & Walker, 1995). Based on finding a reliable tendency of even unacquainted individuals to form fairly stable status hierarchies when placed in group situations, researchers set out to understand those processes. This body of research shows that external statuses, like race and gender, shape status hierarchies within small groups of unacquainted persons even though the external status has no bearing on proficiency at a task the group is asked to perform. Men and whites are more likely than women and blacks to attain positions of power and prestige: they talk more frequently, have their ideas more readily accepted by others, and are more likely to be voted group leader (Mullen, Salas, & Driskell, 1989). These findings imply that status loss is likely to have immediate consequences for a person's power and influence and thus their ability to achieve desired goals.

Discrimination. We conceptualize four broad mechanisms of discrimination as part of the stigma process: individual discrimination, discrimination that operates through the stigmatized individual, interactional discrimination, and structural discrimination. What usually comes to mind when thinking about discrimination is the classic model of individual prejudice and discrimination, in which Person A discriminates against Person B based on Person A's prejudicial attitudes or stereotypes connected to a label applied to Person B (Allport, 1954). For example, if, as in Page's (1977) classic experimental study, a landlord learns about a history of psychiatric hospitalization and consequently denies that an advertised apartment is available, we would say that individual discrimination has occurred. This rather straightforward process doubtlessly occurs with considerable regularity, although it often may be hidden from the discriminated-against person; one rarely learns why one is turned down for a job, an apartment, or a date.

We believe, however, that this relatively straightforward process represents the tip of the discrimination iceberg. Most discrimination, we argue, is extremely subtle in its manifestation if not in its consequences and is often "misrecognized" – that is, it occurs without full awareness. For example, Druss et al. (2000) has shown that people with schizophrenia are less likely to receive optimal treatment for heart disease even after controlling for the nature of the condition and the availability of services. This is an instance of individual discrimination insofar as it results from the behavior of individual physicians who make treatment decisions. Yet it is unlikely that the physicians are aware of their discriminatory behavior or the reasons for it. Comparing demographically similar samples of medical and psychiatric inpatients, Bromley and Cunningham (2004) found that whereas the medical patients received gifts like flowers, balloons, and chocolate, psychiatric patients generally received more practical gifts of toiletries, non-luxury foodstuffs, and tobacco. Again, this differential gift-giving behavior on the part of friends and family members probably is not deliberate or conscious; rather it reflects and reinforces societal attitudes about what it means to have a medical versus a psychiatric problem. Individual discrimination can arrive from many sources including community members, employers, mental health caregivers, family members, and friends (Dickerson, Sommerville, Origoni, Ringel, & Parente, 2002; Wahl, 1999).

Another form of discrimination that often is "misrecognized" is both subtle in its manifestation and insidious in its consequences because it operates through stigmatized individuals themselves (Freidl, Lang, & Scherer, 2003; Prince & Prince, 2002). We cannot pinpoint a specific perpetrator of the discrimination. As explicated above, Link and colleagues' (Link, 1982, 1987; Link et al., 1989, 1997) modified labeling theory posits that all people are exposed to common, ambient stereotypes about mental illness as part of their socialization. If a person then develops a mental illness, these beliefs about how others will treat a person with mental illness become personally relevant and consequential (Link, 1982; Link et al., 1989).

To test this explanation, Link (1987) constructed a scale measuring beliefs that people who have been labeled by treatment contact will be devalued and discriminated against. Using this perceived devaluation-discrimination scale, Link showed that expectations about being rejected are associated with demoralization, income loss, and unemployment among individuals officially labeled by treatment contact, but not among unlabeled individuals, thereby supporting the idea that labeling activates beliefs that lead to negative consequences. Link and colleagues (1989) subsequently examined effects on social network ties. Among people officially labeled by treatment contact, but not among community respondents who were never labeled, those who feared rejection most and who endorsed the coping strategy of withdrawal tended to have insular support networks that consisted mainly of household members. More recently, Kroska and Harkness (2006) studied psychiatric hospital patients and community residents in Indianapolis, Indiana, to examine cultural conceptions. Patients and community residents were asked to rate the concept "mentally ill person" using a semantic differential scale with opposing adjectives such as "good/bad," "useful/useless," and "powerless/powerful." Respondents also rated the concepts "myself as I really am" and "myself as others see me" with the same adjective pairings. The investigators hypothesized that associations among ratings of "mentally ill person," "myself as I really am," and "myself as others see me" would be stronger in the labeled group (where a mental illness label is potentially personally relevant) than in the unlabeled group (where it is not personally relevant). Their results are generally consistent with this prediction, providing additional support for this key prediction of modified labeling theory. Far more common are studies that include only people who have been labeled. A systematic review of these studies uncovered what was described as a "striking" and "robust" relationship between stigma measures like the devaluation-discrimination scale (Link) and outcomes like self-esteem, empowerment, and treatment adherence (Livingston & Boyd, 2010, p. 2150).

A third type of discrimination emerges in the back-and-forth between individuals in social interaction. A classic experimental study by Sibicky and Dovidio (1986) that demonstrates this form of discrimination randomly assigned mixed-sex pairs to one of two conditions: (1) the "perceiver" was led to believe that a "target" was recruited from the psychotherapy clinic at the college and (2) the perceiver was led to believe that the other person was a fellow student in introductory psychology. In fact, the other person always was recruited from the class. In their interactions with therapy targets, perceivers were less open, secure, sensitive, and sincere; the behavior of the labeled targets was adversely affected as well, even though they had no knowledge of the experimental manipulation. Thus, expectations associated with psychological therapy can color subsequent interactions, actually calling out behaviors that confirm those expectations. Recent work in this regard includes a study by Lucas and Phelan (2010) that investigates whether and to what extent a mental illness label reduces influence in interactions and engenders behavioral social distance, integrating the interaction paradigm and paradigms from the expectation-states tradition in sociology (Bergeret al., 1972) with work in psychology on the sources of stigma in interaction processes. Consistent with the notion of "misrecognition," studies of interactional discrimination reveal that substantial differences in social influence and social distance can occur even when it is difficult for participants to specify a discriminatory event that produced the unequal outcome.

Finally, structural discrimination occurs when social policy, laws, or other institutional practices disadvantage stigmatized groups cumulatively over time. Prominent examples are the policies of many health insurance companies that provide less coverage for psychiatric illnesses than physical ones (Schulze & Angermeyer, 2003) or laws restricting the civil rights of people with mental illnesses (Corrigan, Markowitz, & Watson, 2004). Structural discrimination need not involve direct or intentional discrimination by individuals in the immediate context (Corrigan et al., 2004); it can result from a practice or policy that is the residue of past intentional discrimination. For example, if a history of not-in-my-backyard (NIMBY) reactions have influenced the location of board-and-care homes over time so that they are situated in disorganized sections of the city where rates of crime, violence, pollution, and infectious disease are high, then people with serious mental illness are more likely to be exposed to these noxious circumstances as a consequence. Again, although the unequal outcomes resulting from structural discrimination may be readily apparent, the fact that these outcomes represent discrimination is only obvious upon reflection and analysis.

Stigma Avoidance and Resistance: How Do People Seek to Counter the Effects of Stigma Power?

The idea that people who are stigmatized actively respond to their situation has been a key element of theories about labeling and stigma since the inception of those approaches. For example, it is a key component of classic labeling theory's concept of "secondary deviance" as something brought on by "defense, attack, or adaptation" to the overt or covert problems produced by societal reactions to "primary deviance" (Lemert, 1967, p. 17), where primary deviance is the initial rule-breaking behavior that is caused by social, psychological, or biological factors. And of course, Goffman's (1963) work is all about the active "management" of stigma both by those who are the object of stigma and by those who do the stigmatizing.

This active response to stigma has been carried forward by Link and colleagues (Link et al., 1989, 2002; Link, Mirotznik, & Cullen, 1991) in the empirical elaboration of modified labeling theory through the conceptualization and measurement of stigma coping orientations. Earlier work examined coping orientations of "secrecy" (concealing labeling information), "education" (providing information to counter stereotypes), and "withdrawal" (avoiding potentially rejecting situations) (Link et al., 1989, 1991) followed by the addition of "challenging" and "distancing" (Link et al., 2002). Challenging is the direct and active confrontation of stigmatizing behavior, such as by pointing out such behavior when it occurs and indicating that one disagrees with the content of stigmatizing statements or behaviors when they are expressed. In distancing, the person cognitively separates from the stigmatized group and seeks to dodge the stereotype that others might apply or that one might apply to oneself by essentially saying, "I am not like them!" "Your stereotypes of them are misapplied to me."

However, both classic and modified labeling theories have emphasized the active response of stigmatized persons, raising the issue of the consequences of these efforts according to these research traditions: Are they effective? The concept of secondary deviance suggests not – at least not always. The responses of "defense, attack, or adaptation" by the stigmatized induce additional "secondary" deviance that further sets the person apart (Lemert, 1967). Also, Link and colleagues (1991) found no evidence that coping orientations of secrecy, education, and withdrawal with respect to mental illness labeling buffered people from untoward consequences of stigma but did find instead some evidence that these orientations actually exacerbated adverse consequences. They concluded that individual coping orientations are unlikely to be effective because they do not deal with the fundamental problem of deeply embedded cultural conceptions and stereotypes. According to Link and colleagues, the best solutions are ones that change societal conceptions of persons with mental illness or involve the collective action of people with mental illnesses.

More recently, however, Thoits (2011) presented new concepts and theory positing "stigma resistance" that might protect the self-esteem of people with mental illnesses. Thoits points to what she calls a moderate association between perceived or experienced stigma and self-esteem as a basis for arguing that some people may resist stereotypes and protect their self-regard. She identifies two forms of resistance: "deflecting, impeding, or refusing to yield to the penetration of a harmful force or influence" and "challenging, confronting, or fighting a harmful force or influence" (Thoits, 2011, p. 11). In "deflecting," a person responds to mental illness and associated stereotypes by concluding "that's not me," "that is only a small unimportant part of me," or that the designation "mentally ill" does not apply to me because my problems are something different than mental illness. According to Thoits (2011, p. 14), deflecting strategies offer the possibility to "dramatically reduce, if not eliminate, potential threats to self-regard." "Challenging," as described by Thoits, involves an effort to change other people's beliefs or behaviors. A person can challenge by (1) behaving in ways that contradict stereotypes, (2) educating others to reduce stereotyped views, (3) confronting people who express prejudicial sentiments and behave in discriminatory ways, or (4) engaging in advocacy and activism. Thoits (2011, p.15) points out that challenging confers some risks that depend on the outcome of the challenging encounter but that "courageously standing up for oneself or one's group may enhance self esteem regardless of the outcome – one has done the right thing at real risk to oneself."

Whether and to what extent and under what conditions stigma resistance can protect self-regard is an empirical question. The concept of stigma power introduces some doubt because it raises the possibility that the interests and agency of the stigmatizer who uses stigma to keep people down, in, or away must be overcome. As long as the inclination to keep people down, in, or away endures, we can expect stigmatizers to seek ways to achieve the ends they desire. In light of this reasoning, successful stigma resistance must involve either changing the goals of those who wish to stigmatize or blocking their power to achieve those goals. Thus, collective forms of resistance that change cultural conceptions or rebalance power are the most likely avenues for a successful stigma resistance.

Future Research

The development of stigma concepts that has occurred in recent years opens enormous possibilities for future research. First, although much work has been done in the area of measurement of stigma-related concepts, much more is needed. For example, measures are needed for the newly articulated concepts of stigma resistance (Thoits, 2011) and stigma power (this chapter). Also, measures that work well in different cultural settings and take local circumstances into account are required (Yang et al., 2007). Second, future research might usefully borrow theory from other areas of sociology and deploy it within the mix of concepts that have been developed in the area of mental illness stigma. Fruitful examples of this type of work are Markowitz and colleagues' (2011) use of reflected appraisals from symbolic interaction theory and Kroska and Harkness' (2008) use of affect control theory to test aspects of modified labeling theory. Finally and most importantly, we need to construct fresh sociological theories that use newly developed concepts to generate explanations as to why stigma arises, why it is maintained, how it is changed, and how it affects those who stigmatize and those who are stigmatized. Several theories related to mental illness stigma exist (labeling theory, attribution theory), but new concepts, relating to stigma resistance and stigma power, for example, allow the possibility to construct and empirically test new theoretical explanations that use these concepts.

Summary and Conclusion

The original labeling theory of mental illness strongly emphasized the negative consequences of labeling and stigma, whereas the critics emphasized the benefits of treatment and have denied negative consequences. Modified labeling theory stepped back from direct etiological claims to indicate how individuals' employment opportunities, social networks, self-esteem, and quality of life are influenced by labeling and stigma. As evidence supporting modified labeling theory grew, a potential resolution of the more strongly stated positions of the original theorists began to emerge. Both positions were partially correct; labeling induced both positive and negative consequences in a sort of "package deal." On average, treatments and services brought benefits, whereas stigma and the discrimination it entails produced harm. As evidence from modified labeling theory and other approaches within mental health sociology evolved, a parallel explosion of interest in stigma emerged in the social science literature more generally. The development and integration of concepts over the period since the last edition of the *Handbook* leave us with approaches that indicate what stigma is (Link & Phelan, 2001), how stigmatizing circumstances differ from one another (Jones et al., 1984), why people stigmatize (Phelan, Lucas, & Link, 2008), how people enact "stigma power" (a concept introduced here), and how people in stigmatizing circumstances seek to avoid or resist stigmatization (Link et al., 1989, 2002; Thoits, 2011). Each of these concepts was demonstrated to have utility for understanding the stigma associated with mental illnesses, and together they provide a firm basis for further development of such understanding in the time ahead.

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Chapter 26
The Impact of Mental Illness on the Family

William R. Avison and Jinette Comeau

Research in the sociology of mental health is concerned primarily with understanding how individuals' social locations have consequences for their mental health. These investigations typically attempt to identify social and psychosocial processes that connect individuals' positions in the social structure with various measures of psychiatric disorder or psychological distress. As previous chapters in this handbook have demonstrated, mental illness also has important social consequences for individuals in terms of their experiences in help seeking and in accessing treatment and in terms of the social stigma that they may experience. In this context, sociologists of mental health have made important contributions to our understanding of the social sequelae of mental illness.

It is also clear that individuals' mental health problems have consequences for others in their social networks, most notably, their family members. Indeed, social scientists have become increasingly interested in the ways in which the mental disorder of one family member has emotional and behavioral consequences for other family members. In recent years, substantial advances have been made in understanding these processes. To some considerable extent, these advances have been the result of conceptualizing the mental illness of a family member as a source of social stress and then tracing its consequences for others' psychological well-being. In thinking about mental illness as a stressor within the family, there are two separate bodies of literature that have traced the consequences of individuals' mental disorders for their families.

The first concerns the *intergenerational transmission of mental illness*. There is ample evidence that documents the relationship between parental mental illness and children's emotional and behavioral problems. Most of this research has been conducted by researchers in child development or child psychiatry. Surprisingly, relatively few sociologists have addressed this topic. Nevertheless, there are

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W.R. Avison (✉)
Departments of Sociology, Paediatrics, Epidemiology and Biostatistics, The University of Western Ontario,
5327 Social Science Centre, London, ON N6A 5C2, Canada

Children's Health Research Institute, London, ON, Canada

Lawson Health Research Institute, London, ON, Canada
e-mail: wavison@uwo.ca

J. Comeau (✉)
Department of Sociology, The University of Western Ontario, 5306 Social Science Centre, London,
ON N6A 5C2, Canada

C.S. Aneshensel et al. (eds.), *Handbook of the Sociology of Mental Health, Second Edition*,
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many opportunities for the sociology of mental health to make additional contributions to this body of knowledge.

The second body of literature has a somewhat different focus. It examines the burden of stress experienced by family members who provide care to individuals with severe mental illness. These studies of *caregiving and family burden* provide interesting lessons for sociologists in understanding how the mental illness of a family member generates an array of chronic stressors that sometimes erode the psychological well-being of parents, spouses, or adult children who provide care.

In this chapter, we briefly review the literature on each of these areas of research. In doing so, we identify those areas where the sociology of mental health has had a major impact and where there appear to be important opportunities to develop a more distinctly sociological perspective. We conclude the chapter with an appraisal of the opportunities for sociologists of mental health to contribute to future theoretical developments in these areas.

Mental Illness as a Stressor

A central tenet of stress process formulations asserts that individuals' experiences of socially induced stressors manifest themselves in various forms of psychological distress. Indeed, the last three decades have witnessed an exponential growth in the number of studies that have investigated this basic process. A major issue in this field is a consideration of what constitutes a stressful experience. One of the most comprehensive treatments of this conceptual issue is Wheaton's (1994) examination of the "stress universe." He develops a stress continuum to array stressors from the most discrete to the most continuous in nature. Among other things, Wheaton demonstrates how this characteristic of stressors can be cross-classified by the stage of the life course when the stressor occurred. With this system of classification, one can distinguish between traumatic events experienced in childhood and those experienced in adulthood. One can also differentiate among relatively discrete life-change events that have occurred in childhood, in young adulthood, or in later life. Moreover, this classification system separates chronic stressors of childhood from more current, ongoing stressors of adulthood.

Other sociologists have elaborated the stress universe by identifying different ways in which stressors are interrelated. Pearlin, Aneshensel, and LeBlanc (1997) describe the process of stress proliferation, the idea that a primary stressor creates or generates another, so-called secondary stressor. There are at least two contexts in which this occurs. From a life-course perspective, stress experienced by one individual may transfer or spill over to another. The second context is one in which one stressor sets in motion another stressor. Additional discussions of stress proliferation have been provided by Pearlin, Schieman, Fazio, and Meersman (2005).

This concept of stress proliferation has considerable utility for understanding how the mental health problems of one family member may have consequences for the mental health of other family members. In the context of considering mental illness as a stressor in the family, it seems clear that in some families the presence of a family member with a mental health problem is more likely to constitute a chronic rather than a discrete stressor. After all, many psychiatric disorders are characterized by relatively insidious onsets rather than by some momentous behavioral or emotional break that occurs without warning. Moreover, for some individuals, the behaviors and emotions that are symptomatic of most disorders can persist over lengthy periods of time. In addition, people may experience recurrent episodes of their mental illnesses. In these circumstances, family members will experience the difficulties of living with someone who has a mental disorder as a relatively continuous strain that may ebb and flow with the individual's symptomatology but remains an ever-present threat even when the individual is in remission.

However, the chronic stress associated with a family member's mental illness is not just a function of the duration of the disorder. It also seems apparent that living with a relative who suffers from a mental disorder creates a variety of role strains. Pearlin (1983) has presented a rich conceptual overview of this source of stress. For Pearlin, there are at least six types of stress that may arise from role occupancy: (1) excessive demands of certain roles, (2) inequities in rewards, (3) the failure of reciprocity in roles, (4) role conflict, (5) role captivity, and (6) role restructuring. These various types of stress are likely to become prominent in the lives of parents or spouses who must assume a variety of responsibilities for the care of an individual with a mental illness. The additional effort that is required to care for a mentally ill family member and the absence of alternative sources of such care frequently result in role overload, a sense of role captivity, and feelings that the resources and support provided to someone who fills the role of caregiver are not adequately reciprocated by the mentally ill family member.

Of course, as Pearlin (1989) and Wheaton (1994) remind us, not all chronic stress is role-related strain. Pearlin refers to ambient strains that are not attributable to a specific role but, rather, are diffuse in nature and have a variety of sources. These may be the kinds of strains that children of mentally ill parents experience. As we shall see in a subsequent section of this chapter, there is clear evidence that parents with schizophrenia, depression, or substance abuse disorders are often emotionally inaccessible or unavailable to their children. In addition, marriages in which one partner suffers from a mental disorder are frequently characterized by discord and conflict. Family environments in which there is an absence of strong parent-child attachments or the presence of ongoing conflict may constitute ambient strains for children.

In addition to these chronic stressors, the parents, children, or spouses of persons with mental disorders may also experience a number of discrete life events that may be a direct result of the illness itself. The hospitalization of mentally ill individuals, however infrequent this is today and however short the admission to hospital is, may be experienced by family members as a stressful event. This is perhaps even more likely to be the case for children who simultaneously experience the loss of a parent. Similarly, encounters that mentally ill individuals may have with the police also constitute stressful experiences for family members, as do instances of job loss. Thus, living with a mentally ill family member may expose individuals to more discrete stress in the form of life events as well as to more chronic stress in terms of role strain and ambient strain.

It is also possible to think of the family member's mental illness as a primary stressor that creates additional stressors for other family members. This process of stress proliferation may be a very important mediator of the association between parental and child mental health.

These considerations suggest ways in which the mental illness of a family member can be conceptualized as a stressor that influences the mental health of other family members, the perspective that is taken in this chapter. The remainder of this chapter is divided into three major segments. We first review the literature on the impact of parental mental illness on children's emotional and behavioral problems and identify promising research opportunities for sociologists. Next, we summarize the research on caregiving to psychiatric patients and draw attention to some of the unique contributions that sociologists have made to this area. We conclude with a consideration of some theoretical issues that emerge when one considers mental illness in the family within a sociological context.

The Intergenerational Transmission of Mental Illness

There is substantial agreement among sociologists, psychologists, and psychiatrists that the family environment plays a critical role in the development of mental health problems among children (Ge, Conger, Lorenz, Shanahan, & Elder, 1995; Goodman & Gotlib, 2002; Hammen, Shih, & Brennan, 2004). Indeed, almost every social science perspective on life-course development attributes considerable importance to the ways in which family contexts affect the lives of children. Moreover, a central theme of virtually all sociological and psychological theories of socialization asserts the prominence of family factors in influencing children's behavior. In this context, an important consideration is the intergenerational transmission of mental illness. Reviews of the literature on this topic clearly reveal that research on these issues has been dominated by developmental and clinical psychology and social psychiatry.

Early Research on Familial Transmission of Mental Illness

For decades, researchers have been aware of clear patterns of familial aggregation of schizophrenia. Although it was widely accepted that genetic factors play a significant role in the transmission of schizophrenia, there has long been a consistent focus on the family environment of individuals with schizophrenia. These patterns of familial aggregation, coupled with an early focus on the family environment, led several investigators to follow over time young children with a schizophrenic parent to chart the emergence of any symptoms of schizophrenia. Among the most notable of these investigations are the Stony Brook High-Risk Project (e.g., Emery, Weintraub, & Neale, 1982), the Massachusetts Mental Health Center Project (e.g., Cohler, Grunebaum, Weiss, Gamer, & Gallant, 1977), the Rochester Longitudinal Study (e.g., Sameroff, Seifer, & Zax, 1982), and the University of Rochester Child and Family Study (e.g., Fisher & Jones, 1980).

The results of these so-called "high-risk" projects demonstrated that children of parents with schizophrenia are at considerable risk for mental health problems, specifically oppositional and defiant behaviors, symptoms of attention deficits, and other indicators of maladjusted behavior at home and school. In many cases, however, the children of parents with schizophrenia were indistinguishable from those of depressed parents, although children in both these groups generally demonstrated high levels of psychopathology compared to children of parents who served as nonpsychiatric controls.

The relatively robust findings of these studies of children whose parents suffered from schizophrenia raised important questions for researchers. Is this pattern restricted to schizophrenia or is it also true for major depressive disorder, alcohol or drug abuse, and other disorders? Is the link between parental and child disorder specific to diagnosis or more general in terms of the child's symptomatology? To what extent can this familial aggregation be disaggregated into genetic and environmental components?

Throughout the 1980s and 1990s, when it became apparent that the prevalence of major depressive disorder was substantial, large numbers of studies examined the impact of parental depression on children's mental health. Several comprehensive reviews of the literature generated remarkably similar conclusions from studies employing a variety of research designs (Cummings & Davies, 1994; Gelfand & Teti, 1990; Gotlib & Avison, 1993). The conclusions of these reviews are highly consistent. There is now little question that parental depression affects the functioning of children and significantly increases their risk of developing a psychiatric disorder or other emotional difficulties. This pattern of results has been found in assessments utilizing parental reports, child self-reports, and teacher, peer, and clinician ratings, attesting to its robustness. Furthermore, the nature and severity of problems found in children of depressed parents appear to be similar to those observed among offspring of parents with schizophrenia. Similar results were reported in studies of the prevalence of psychopathology among children of alcoholic parents (Harter, 2000; West & Prinz, 1987). Indeed, some investigators have suggested that these difficulties in child functioning may not be due to depression or schizophrenia per se, but rather to parental mental health problems in general (Harter).

In summary, early research on the functioning of the offspring of parents with schizophrenia, depression, or alcoholism suggests that these children are at risk for developing a variety of emotional problems. Clearly, there is not a one-to-one correspondence between parental diagnosis and child functioning. Thus, for example, children of depressed parents not only exhibit higher rates of depression but also higher levels of conduct disorder, global psychiatric symptoms, and multiple psychiatric diagnoses. Similarly, children of alcoholic parents are not only at elevated risk for alcohol and drug use but also for diagnoses of major depression and anxiety. Finally, it is important to note that there are common problems exhibited by children in all three groups of parental disorders. These problems include difficulties at school, temper tantrums, headaches, problematic social functioning, and emotional disorder. The lack of diagnostic specificity in the impact of parental psychopathology on children's psychosocial adjustment, juxtaposed with the adverse effects of social disadvantage and problematic family structures reviewed earlier in this handbook, suggests there are common factors or processes that mediate the effects of these environmental variables on child functioning.

More recently, researchers have turned their attention to the identification of pathways or mediating processes that account for this association of parental mental health problems with children's psychopathology. At the same time, other researchers have recognized that the magnitude of the relationship between parental and child mental problems varies considerably. This has led to increased interest in the examination of moderators of this association.

Common Mediating Processes

Although it is clear that children's exposure to parental mental illness in the form of schizophrenia, depression, or substance abuse increases the likelihood that the children themselves will exhibit symptoms of psychopathology, research focused on the intergenerational transmission of depression has dominated the empirical literature. Goodman and Gotlib (2002) have proposed an integrative model for the transmission of risk to children of depressed mothers that nominates four principal mediating processes: (1) heritability, (2) innate dysfunctional neuroregulation, (3) exposure to maladaptive maternal behaviors and cognitions, and (4) elevated exposure to stressors. Their model provides a useful tool for developing an interdisciplinary approach to the study of the intergenerational transmission of mental illness.

The *heritability* of depression has been the subject of several reviews of the literature. In their meta-analytic review, Sullivan, Neale, and Kendler (2000) conclude that there is substantial evidence that familial aggregation of major depressive disorder is genetically based. Consistent with this conclusion, Rice, Harold, and Thapar (2002) report that across a range of different study designs (familial studies, twin studies, and adoption studies), the evidence is consistent with the hypothesis that major depression in childhood and adolescence is heritable.

Although some research has implicated specific genes (Caspi et al., 2003; Levinson et al., 2003; Ressler & Nemeroff, 2000), progress in identifying specific candidate genes has been relatively slow. In part, this may be the result of the nonspecific impact of parental depression on children's psychopathology. Alternatively, it may be that the specific genetic vulnerabilities that exist may only emerge in particular gene-environment interactions, an issue that we return to later in this chapter.

Goodman and Gotlib suggest that *innate dysfunctional neuroregulatory processes* may also link maternal and child depression. There is evidence that elevated neuroendocrine secretions during pregnancy among anxious or depressed mothers may expose their children prenatally to elevated risks for neurodevelopmental issues and emotional vulnerability (Goodman, 2007).

The third class of mediators consists of *qualities of parenting* that may elevate children's risk of depression. Dix and Meunier (2009) provide an exceptionally comprehensive review of the many ways in which depressive symptoms among parents are associated with lower levels of competence in parenting including parental withdrawal, intrusiveness, emotional negativity toward children, and ineffective discipline. In her review of the research on postpartum depression and its effects on parenting, Field (2010) documents how these patterns can emerge shortly after the child's birth.

The fourth group of mediators consists of *stressors.* For some time, researchers have been aware that marital conflict and discord may be both an antecedent and consequence of depression. Several studies report a significant association between parental mental illness and marital or family discord (Cummings, Keller, & Davies, 2005; Papp, 2010; Whisman & Kaiser, 2008). These investigations find that the interactions of depressed persons with their spouses are significantly more negative than those of nondepressed couples and that these marital stressors persist even after recovery. Marshal's (2003) meta-analysis of 60 studies on alcohol use and marital functioning clearly documents the maladaptive effects of alcohol abuse in terms of negativity, dissatisfaction, conflict, and marital violence. West and Prinz's (1987) conclusion of almost 25 years ago that marital conflict might be an important link between parental alcoholism and child dysfunction still appears to be contemporary. O'Brien, Margolin, and John (1995) also document a link between marital conflict and children's emotional and behavioral problems.

More recently, researchers have extended their investigations of the mediating roles of stressors to include both acute and chronic stressors among children of depressed mothers. Grant and colleagues (2003) have generated a particularly comprehensive inventory of stressors that form part of the pathway linking maternal and child depression. Hammen, Shih, Altman, and Brennan (2003) have expanded this to the study of adolescents whose mothers suffer from depression. The mediating effects of stressors also appear to generalize to other mental health outcomes among children and adolescents (Brennan, Hammen, Katz, & Le Brocque, 2002; Dawson et al., 2003).

Moderating Effects

Despite the consistent evidence of the intergenerational transmission of mental illness, Goodman and colleagues (2011) point out that the average estimated effect size of the relationship between depression in mothers and their children is small. Moreover, there is substantial variability across studies. This has led some researchers to search for moderating effects that may alter the strength of these associations.

Some of these moderating influences are thought to be methodological features of the studies themselves, but there is also good reason to believe that social context plays an important moderating role. Methodological moderators are characteristics of the sample or research design that are associated with stronger or weaker associations between parental mental disorder and children's mental health. There is evidence that this association is somewhat stronger when mental health is assessed in terms of diagnosed disorder as opposed to symptom counts (Harrington, Rutter, & Fombonne, 1996) or when families are recruited from treatment or clinical settings as opposed to community samples (Kendler, 1995). The effect size has also been reported to be greater when the assessment of children's mental health is derived from the parent's report (Boyle & Pickles, 1997). In their meta-analysis, Goodman and colleagues (2011) conclude that the moderating effects of these three methodological features are modest.

In contrast, Goodman and her colleagues argue that social characteristics of children and their families have important moderating effects. In particular, they note that the concordance of maternal depression with children's externalizing and internalizing behaviors is more pronounced among girls than boys. They also find more modest increases in continuity among younger rather than older children, among families where the father is absent, and among minority families.

These considerations suggest that there may be substantial value in investigating the moderating effects of social structural variables on the intergenerational transmission of mental health problems. In particular, gender, race/ethnicity, and socioeconomic status appear to be likely candidates in this context.

With recent increased interest in the effects of paternal mental health on children's mental health (Bögels & Phares, 2008; Flouri, 2010; Ramchandani & Psychogiou, 2009), a growing body of research has considered differences in the intergenerational transmission of risk as a function of both parental and child gender. Although the genetic component of most disorders does not differ between males and females (alcoholism may be an exception; Sigvardsson, Bohman, & Cloninger, 1996), the mechanisms through which the intergenerational transmission of risk occurs may vary for mothers and fathers (Connell & Goodman, 2002; Goodman, 2007). Because mothers generally have larger parenting roles compared to fathers, it may be that children are exposed to more negative parenting behaviors related to maternal rather than paternal psychopathology. However, the amount of time fathers spend parenting may be less important for child outcomes than the quality of the time spent (Connell & Goodman). In this way, parental gender may reveal very little about variability in children's mental health outcomes.

Alternatively, the child's gender may play an important role with parents having their greatest impact on children of the same gender, a process often referred to as the same-gender effects model (Rohde, Lewinsohn, Klein, & Seeley, 2005). In a meta-analysis of studies assessing the association between maternal and paternal psychopathology and outcomes in male and female children, Connell and

Goodman (2002) find that maternal rather than paternal disorder is more closely linked to internalizing problems in boys and girls. By contrast, paternal disorder is more closely linked to externalizing problems in children, particularly girls.

It may also be that the way in which certain disorders are linked to negative parenting is gender specific. For instance, some research shows that mothers' parenting is more likely to be compromised by depression than is the case for fathers (Jacob & Johnson, 1997). However, an emerging body of literature suggests that depressed mothers and fathers are equally as likely to engage in negative interactions with their children and with each other (Kane & Garber, 2004). With respect to other disorders, no gender differences in the effects of psychopathology on parenting have been observed (Connell & Goodman, 2002).

Exposure to stressors associated with parental disorder, such as marital conflict and financial strain, may be negatively associated with children's mental health outcomes. Although it is possible that the frequency, type, and severity of stressors related to parental psychopathology may vary for mothers and fathers, very little research has examined gender differences in this respect (Connell & Goodman, 2002).

Research that examines racial/ethnic variations in the intergenerational transmission of mental illness is sparse. Aikens, Coleman, and Barbarin (2008) report that the children of African American parents with depression are more likely to experience mental health problems than are the children of either White or Latino parents who are depressed. They attribute this effect to higher levels of parent-child conflict among depressed African American parents than is the case for the other two ethnic groups. McNeal and Amato's (2000) study of parental and child alcohol use finds both similarities and differences between White and African American families. Although parental problems with alcohol are associated with offspring's problems for White and African American families alike, paternal patterns of alcohol use generate different outcomes. Among African Americans, parental alcohol misuse is associated with less alcohol consumption among children. This pattern cannot be observed in White families.

Parke and colleagues (2004) have conducted a comparative study of Mexican American and European American families and the processes that link stress, parenting, and child adjustment. One of their conclusions is that family conflict (which is a consequence of parental depression in their study) has a more substantial impact on children's adjustment in Mexican American families than in European American families. They attribute this to the greater value placed on family cohesion and solidarity or familism in Mexican American culture.

Clearly, the study of racial and ethnic variations in the intergenerational transmission of mental illness is an area that requires considerable development. More research is needed on this question, especially given what we know about substantial racial/ethnic differences in the prevalence of mental health and alcohol problems (Turner & Gil, 2002).

Although few studies have explicitly tested the moderating effects of socioeconomic status, Goodman and colleagues (2011) have been able to address this issue through a meta-analysis of studies that estimated the association of maternal depression with children's behavioral problems. They compared these effect sizes from studies that sample low-income families with those that studied samples with middle-to-high or mixed incomes. They conclude that the effect of maternal depression on children's outcomes is significantly stronger among lower-income families than among middle- or higher-income families. This pattern appears to generalize to children's internalizing and externalizing behaviors.

Opportunities for the Sociology of Mental Health

Although the study of the intergenerational transmission of mental illness has been dominated largely by developmental and clinical psychology and, to a lesser extent, by social psychiatry, this should not imply that sociologists have no contribution to make in this important area of research. Quite the contrary, there are several important elaborations that sociologists of mental health can bring to this area of inquiry.

Perhaps, the most important conceptual contribution that they can make is to elaborate the theoretical models that have dominated this area of research. Although it seems clear that parental mental illness is associated with children's emotional and behavioral problems, researchers in this area have generally failed to take into account the impact of social factors on this entire process. Indeed, a central theme of the sociology of mental health asserts that individuals' positions in the social structure have a vast array of mental health consequences (Aneshensel, Rutter, & Lachenbruch, 1991). Of course, this has been developed explicitly by Pearlin in his elaboration of the stress process model over the past three decades (Pearlin, 1989; Pearlin & Skaff, 1996; Pearlin et al., 2005). Moreover, there is also strong evidence that social disadvantage has a profound effect on children's mental health (McLeod & Shanahan, 1993, 1996). Studies of the intergenerational transmission of mental illness that fail to take into account these social factors are likely to overestimate the direct effects of parental illness on children's mental health. A sociological approach would estimate the relative significance of social disadvantage and parental mental illness on children's well-being.

Conger and colleagues (Conger & Donnellan, 2007; Conger et al., 2002; Schofield et al., 2011) have developed and tested an interactionist model of human development that traces the pathways connecting socioeconomic status and human development across multiple generations. This model accommodates both social selection and social causation processes and provides a useful framework for understanding the interconnections among socioeconomic status, parenting behaviors, and children's well-being across generations. In our view, this model might be very useful in studying the role of socioeconomic disadvantage in the intergenerational transmission of mental health problems.

In her review of the mental health of adult children of alcoholics, Harter (2000) argues for the need for more informed studies of the mediating and moderating processes that may link alcoholism across generations. The burgeoning literature on life-course sociology and its intersection with principles of the stress process paradigm (Pearlin & Skaff, 1996) clearly seems to have relevance for this topic. George (1999, 2007) has also provided sociologists with a comprehensive framework for examining the emergence of mental illness over the life course. Her approach emphasizes the importance of timing of onset of illness, duration of mental illness, and the persistent effects of early adversities such as childhood poverty, childhood abuse and neglect, and family violence on subsequent mental health. She documents how the experience of mental illness early in one's life is associated with an array of negative social consequences that, in turn, generate recurrent episodes of illness. She also argues that an important characteristic of life-course research on mental health is its emphasis on linked lives, the notion that significant life experiences of one family member can have profound effects on other family members. These are ideas that are clearly relevant to the development of a better understanding of the intergenerational transmission of mental illness.

As more studies investigate multigenerational processes that influence mental health (Bailey, Hill, Oesterle, & Hawkins, 2006; Hammen et al., 2004; Pettit, Olino, Roberts, Seeley, & Lewinsohn, 2008; Weissman et al., 2005), sociological perspectives on stress and the life course may become ever more relevant to this research. Evidence of the transmission of mental illness across three generations suggests to some researchers that there is a complex interaction of genetic loading and exposure to psychosocial risk factors such as marital conflict and other chronic strains across the life course.

Studies of the impact of parental mental illness on children's mental health have also been relatively selective in considering other stressors to which these families may be exposed. One of the distinctive contributions of the sociology of mental health has been to recognize that individuals and families are exposed to a broad array of stressors (Turner, Wheaton, & Lloyd, 1995; Wheaton, 1994). These stressors may be both antecedents and consequences of episodes of psychiatric disorder. Thus, for example, chronic financial strains may account for both elevated rates of depression among mothers and emotional and behavioral problems among their children. Alternatively, episodes of depression, schizophrenia, or substance abuse among parents may increase the risk of job loss and subsequent socioeconomic disadvantage that in turn may have serious mental health consequences for their children. The potential mediators of the relationship between parental and child mental health problems need to be examined with the same kind of scrutiny that family conflict and emotional unavailability have enjoyed. Sociologists have developed the conceptual models and the empirical measures to do so.

Moreover, it is now clear that certain stressful experiences produce or generate additional stressors. As we have noted earlier, Pearlin et al., (1997) have provided a most useful framework for examining how primary stressors proliferate into secondary stressors that add to individuals' operant burden of stress. In the context of the intergenerational transmission of mental illness, this concept of stress proliferation, applied to linked lives, offers a powerful explanation for the continuity of mental illness across generations.

The importance of delineating the stressors to which families are exposed is also crucial if scientists are to accurately estimate the relative impact of environmental and genetic influences on mental health. A particularly good illustration is Kendler, Kessler, Neale, Heath, and Eaves' (1993) twin study that examines the relative effects of genetic risk factors and environmental risks such as childhood parental loss, perceived parental warmth, and various dimensions of stressful experience on major depressive disorder. In descending order of impact, they find that recent stressful life events, genetic factors, a previous history of depression, and neuroticism all have direct effects on depressive disorder.

This example highlights the potential contribution to be made by sociological studies of the intergenerational transmission of mental health. Collaborations among sociologists and behavioral geneticists are likely to clarify the relative impact of social and genetic influences on this process. By carefully measuring environmental variables that include social status, social stressors, psychosocial resources, and family processes, sociologists and geneticists can play a central role in estimating the limits of genetic influences on the intergenerational transmission of mental illness.

This has become even more important with the increased interest and ability for scientists to study gene-environment interactions and gene-environment correlations. Sociologists have become increasingly interested in exploring the intersection of genetic and environmental influences on human behavior (cf. Freese, 2008; Schnittker, 2010; Seabrook & Avison, 2010;Shanahan & Hofer, 2005; Shanahan, Vaisey, Erickson, & Smolen, 2008). One of the lessons that are emerging from sociological contributions to genetic research is the need to more precisely measure environmental factors such as stressful experiences.

There is another substantive contribution that sociologists can bring to this area of research. As we have seen, the research on intergenerational transmission has focused mainly on diagnosed disorders among parents and their impact on children. For those who contend that indexes of psychological distress are more appropriate measures of mental health problems (cf. Mirowsky, 1994; Mirowsky & Ross, 1989), there is a pressing need for studies of the association between parental distress and children's outcomes. Such investigations broaden the scope of this area to include all families, not just those in which there is a diagnosable disorder.

This point raises an important methodological issue in which sociological expertise can be useful. Reviews of the literature on the intergenerational transmission of mental illness have noted that studies often fail to consider the impact of the severity of parental disorder on children's mental health. Many studies construct samples of families from caseloads of psychiatric practices or from other therapists' caseloads. The results of these studies are vulnerable to selection biases that result from sampling from clinical caseloads. A more appropriate method for sample acquisition would involve a population-based survey to identify families with at least one parent who has experienced a disorder. Such methodological approaches are typically part of the expertise of sociologists and epidemiologists and can be expected to avoid commission of the "clinician's illusion," the error of generalizing from a sample with more severe and more chronic mental disorders to all families experiencing mental health problems (Cohen & Cohen, 1984).

The Impact of Psychiatric Illness on Family Caregivers

The sociology of mental health has a rich tradition of investigating the psychosocial consequences for individuals who provide care to family members who suffer from health problems. For example, there is a substantial body of literature that has examined the emotional impact on parents of caring for a child with a chronic illness or a life-threatening disease (Avison, Noh, & Speechley, 1991; Beresford, 1993; Breslau & Davis, 1986). Increases in the number of individuals who suffer from Alzheimer's disease and other late-life dementias have stimulated several important investigations of caregiving for the elderly (Aneshensel, Pearlin, Mullan, Zarit, & Whitlach, 1995; Pearlin, Mullan, Semple, & Skaff, 1990; Zarit, Orr, & Zarit, 1985). As well, the AIDS epidemic has resulted in a significant increase in the number of family members who provide care to individuals with this illness (Moskowitz, Folkman, Collette, & Vittinghoff, 1996; Pearlin et al., 1997; Turner & Catania, 1997).

Perhaps, the longest tradition of research on the emotional impact of family caregiving focuses on families of individuals with severe mental illness. For over 60 years, sociologists and social psychiatrists have documented the difficulties experienced by the close relatives of formerly hospitalized psychiatric patients. Early studies described the hardships experienced by the parents and spouses of these patients and provided some of the first evidence that these difficulties had distressful consequences for family members (Clausen & Yarrow, 1955; Clausen, Yarrow, Deasy, & Schwartz, 1955).

Family Burden

Subsequent research in this area focused on the concept of family burden: the emotional strains and socioeconomic difficulties borne by families of psychiatric patients. Baronet (1999) provides a very informative account of the development of research on caregiver burden and how the concept of family burden has been extended to include objective and subjective components. Other researchers documented how the level of symptoms expressed by the family member with a mental illness is an important determinant of subjective burden (Freedman & Moran, 1984; Greenberg, Kim, & Greenley, 1997; Tessler & Gamache, 1994). These authors observed that caregivers experience less burden when they perceive that their relative's behavior is not within their control.

More recent work has extended the study of caregiver burden to a range of psychiatric diagnoses including bipolar disorder (Bauer et al., 2011), anorexia nervosa (Dimitropoulos, Carter, Schachter, & Woodside, 2008; Whitney, Haigh, Weinman, & Treasure, 2007), and posttraumatic stress disorder (Manguno-Mire et al., 2007). These studies reveal that the burden of caregiving is substantial across a wide range of illnesses that vary in terms of the types of symptomatic behavior.

A second noteworthy development has been the growing cross-cultural flavor of this research. Studies of caregiving burden have extended to a major 5-year follow-up study of relatives of patients with schizophrenia or depression in Germany (Möller-Leimkühler, 2005), studies contrasting caregiver experiences in Germany and Great Britain (Roick et al., 2007), and studies in Taiwan (Hsiao & Van Riper, 2009). This work draws attention to the contextual factors associated with different health care systems, different belief systems about mental illness, and different coping responses and strategies. These studies attest to the value of developing culturally appropriate measures of burden.

Much of the work on caregiving has been relatively atheoretical and heavily applied in nature. One collaborative group has articulated a more theoretical approach to the study of discharged psychiatric patients and their families. Avison and Speechley (1987) and Noh and Avison (1988) argue that the stress process paradigm is a useful theoretical context in which to examine the dynamics of psychiatric patients' family life. Central to their argument is the idea that the burdens of living with a discharged psychiatric patient can be conceptualized as stressors. Noh and Avison document that the burdens experienced by spouses of discharged psychiatric patients are determined in part by the patient's level of symptoms. In addition, they show that this relationship is exacerbated by the experience of other stressful life events. They also find evidence that the effects of life events on family burden are moderated by social support. These findings provide clear evidence of the theoretical relevance of the stress process paradigm for understanding the impact of psychiatric illness on family processes. Noh and his colleagues document how these two dimensions of family burden are associated but observe that only subjective burden is related to psychological distress among family members (Noh & Avison, 1988; Noh & Turner, 1987).

Thompson (2007) has also demonstrated how the stress process paradigm can be used to study how violent behavior among individuals with mental illnesses increases financial burden among caregivers. Her analysis shows how social support and coping resources play important roles in alleviating this financial burden.

Family Caregiving

Research in this area has extended the analysis of burden to focus explicitly on the experience of caregiving for family members with psychiatric illnesses (Ohaeri, 2003). With the continued trends toward the deinstitutionalization of individuals with mental illness, an increasing number of discharged psychiatric patients return to live with their families. Consistent with earlier research, studies of these families reveal that the caregiving role is characterized by high levels of chronic strain (Cook & Pickett, 1987; Fisher, Benson, & Tessler, 1990; Veltman, Cameron, & Stewart, 2002).

This work has shown that the caregivers of individuals with mental illness are by no means a homogeneous group, a perspective missing from earlier work. For example, there have been few studies of caregiving for mentally ill people that have systematically addressed gender differences. Noh and Avison (1988) find that husbands of psychiatric patients have higher levels of burden when their wives are more symptomatic and that their burden increases with the duration of time since their wives' discharge from the hospital. Increases in other stressful life events are also associated with husbands' reports of caregiving burden. Among the wives of patients, their age, the presence of children at home, and low levels of mastery correlate with caregiver burden. Thus, the factors associated with caregiving burden appear to be substantially different for men and women. To date, however, there have been few attempts to explore gender differences in the burden of caring for mentally ill people (cf. Awad & Voruganti, 2008, for a review).

One of the more interesting examinations of gender in this context is Cook's (1988) investigation of who "mothers" people with chronic mental illness. She finds that this responsibility appears to fall mainly to the mothers of psychiatric patients, a pattern that has also been reported by Gamache, Tessler, and Nicholson (1995). Moreover, Gamache and associates also note that other female relatives appear to assume the caregiving role when mothers are unavailable.

Other investigators have explored the role that the gender of the mentally ill patient plays in influencing caregiving strain. For example, Pickett, Cook, and Solomon (1995) find that parents of mentally ill daughters appear to be more burdened than parents of mentally ill sons, even though sons are perceived to be more "off-time" in terms of their achievement of normative educational and occupational goals. The researchers speculate that this gender difference may emerge from parents' greater sense of responsibility for their daughters, whom they perceive to be more vulnerable to exploitation by others.

Researchers have also started to explore ethnic and racial differences in caregiving. In their study of families of discharged psychiatric patients, Horwitz and Reinhard (1995) report interesting differences in caregiving burden associated with race and kin relationship. White parents experience more subjective burden than do African American parents, even though they have equivalent duties. Although African American siblings report more caregiving responsibilities than White siblings, the former experience less burden. Horwitz and Reinhard interpret these findings in terms of the greater participation in and benefits from extended kin networks experienced by African Americans. McCabe, Yeh, Lau, Garland, and Hough (2007) report similar patterns. They find that African American parents of children with emotional and behavioral problems report lower levels of caregiver strains than do White, Latino, or Asian/Pacific Islander parents.

These differences in the caregiving experience appear to be consistent with the findings of Milstein, Guarnaccia, and Midlarsky (1995). Their interviews with European American, African American, and Hispanic American caregivers reveal substantial ethnic differences in family members' perceptions of the former patient's illness and their responses to it. For example, the authors found that compared to White caregivers, Latinos were more accepting of family members with mental illness and that Latino and African American caregivers were more likely to prefer coresiding with their relatives with mental illness. Similar patterns have been reported by Awad and Voruganti (2008), Guarnaccia and Parra (1996), and Pickett, Vraniak, Cook, and Cohler (1993). These studies clearly demonstrate the need for further research that examines racial, ethnic, and cultural variations in the caregiving role.

Schulze and Rössler (2005) note that there has been increased international interest in caregiving and its consequences for mental health. They conclude that the level of burden among caregivers in developing countries may be as substantial as in the developed world, despite the traditions of family care in the former. Moreover, they find evidence that the stigma of caring for a mentally ill family member may be as consequential in developing societies as in developed countries. The increasing globalization of research should offer sociologists many more opportunities to examine cross-cultural variations in the caregiving experience.

Several other themes have emerged in the study of caring for former psychiatric patients. One is the possibility that the experience of providing care to a discharged psychiatric patient might have some beneficial aspects. For example, Greenberg, Greenley, and Benedict (1994) report that relatively high-functioning former patients often make important contributions to their families. Other researchers report that caregivers often report that their role is fulfilling and uplifting (Bland & Darlington, 2002; Treasure et al., 2001; Veltman et al., 2002).

A second theme concerns reciprocity. Horwitz (1994) reports that perceived reciprocity of support is an important predictor of sibling social support in the families of former psychiatric patients. Horwitz, Reinhard, and Howell-White (1996) document how former patients make expressions of support to their families, largely in terms of symbolic exchanges such as expressing affection and participating in family activities. The investigators conclude that the provision of social support by former patients alleviates feelings of burden among family caregivers.

Bringing Sociology Back

Historically, sociologists have made major contributions to our understanding of the distressful effects of caring for a mentally ill relative. More recently, this area of research has largely been taken over by other disciplines such as nursing and social work. Nevertheless, researchers from these areas have frequently employed Pearlin's stress process model as a conceptual framework (Awad & Voruganti, 2008; Townsend, Biegel, Ishler, Wieder, & Rini, 2006). As we have suggested earlier, one of the more recent developments has been an exploration of ethnic, racial, and gender differences in caregiving experiences. In our view, sociologists are particularly well suited to undertake larger-scale studies of caregiving that will allow for more in-depth investigations of cultural variations of caregiver burden and distress. For several reasons, this is a challenging task. Cultures attach different meanings to the concept of mental illness and have very different notions of the appropriateness of various formal and informal treatment strategies. These differences are likely to have important consequences for caregiver burden across different cultures. As our societies become more ethnically and culturally diverse, these differences are likely to be increasingly important for understanding caregiver distress.

With some notable exceptions, studies of caring for mentally ill people have not developed a strong conceptual framework that considers the role of gender in the caregiving process. Although Cook and her colleagues have documented that women assume the major responsibilities and burdens of caregiving for mentally ill family members, we do not yet have a systematic exploration of the gendered nature of this role and its implications for women's mental health. This is an area where sociologists of mental health could make important theoretical and empirical contributions given the depth of sociological research on the impact of gender on mental health in general.

There is another research opportunity for sociologists who are interested in studying the burden of caring for mentally ill individuals. Over the last decade, interest in caregiving has increased dramatically. There are now substantial bodies of literature concerning caregiving and a wide range of diseases and conditions, including AIDS (Darling, Olmstead, & Tiggleman, 2010), dementia (Braun et al., 2009), severe mental illness (Saunders, 2003), Down's syndrome (Hodapp, 2007), and life-threatening or chronic pediatric illnesses (Ferro, Avison, Campbell, & Speechley, 2011; Katz, 2002). Given this wealth of research, it seems timely to take a comparative approach in the study of caregiving and mental health.

There are some examples of this comparative approach. For example, Avison, Turner, Noh, and Speechley (1993) have contrasted the experiences of the families of discharged psychiatric patients with those caring for children with cancer, families caring for children with Down's syndrome or autism, and single mothers caring for their normal children. This comparative approach identified specific aspects of the caregiving experience that were particularly important for the psychological distress of caregivers. Avison and colleagues find that the type of chronic strain associated with the caregiving role varies with the nature of the family member's illness. Thus, the context of caregiving is an important feature that could be explored fruitfully within a comparative research framework.

Other studies provide interesting examples of the value of this research strategy. For example, Greenberg, Seltzer, Krauss, and Kim (1997) and Seltzer, Greenberg, Krauss, Gordon, and Judge (1997) have compared the caregiving experiences of mothers of adults with mental illness with mothers of adults with mental retardation. They report that social support plays a more prominent role in influencing the burden and distress of caring for adult children with mental illness than mental retardation. In a companion article on the impact on siblings, Seltzer and associates find that siblings of adults with mental retardation report considerably closer relationships with their brother or sister than do siblings of a mentally ill patient. Contact with the brother or sister with mental retardation is positively associated with the sibling's psychological well-being. In contrast, the more pervasive the impact of a mentally ill brother or sister on the lives of siblings, the more distressed are the siblings.

These examples clearly demonstrate how contextual factors shape caregiving experiences and affect caregivers' levels of burden and distress. With the development of large-scale studies of caregiving that include standardized research measures, there are now several opportunities for more comparative work of this kind.

Issues concerning aging and the life course are also important to the study of caregiving for persons with mental illnesses. Although it is clear that parents (especially mothers) become the prime caregivers to chronically mentally ill individuals, surprisingly little attention has been directed toward the issue of aging in the caregiver role. Cook, Cohler, Pickett, and Beeler (1997) provide a particularly informative life-course analysis of this issue. They identify a number of important questions that need to be addressed: the possibility that the timing of various life transitions may be seriously disrupted by caring for a mentally ill adult child, difficulties associated with coresidence in older age, and changes in levels of expressed emotion. To these, we should add the lack of information about the conditions under which an extended career of caregiving leads to more or less burden and distress; that is, we have little information about the factors that lead to adjustment over the life course. Finally, it appears that little attention has been paid to the likelihood that caregiving responsibilities over the life course are more likely to fall to women because of the gender difference in mortality.

The opportunities for life-course analyses of caregiving suggest to us that this area of research could provide sociologists with a number of interesting opportunities to test principles of both the life course and the stress process. To date, sociologists have been much more successful in doing this in studies of caregiving to persons with HIV/AIDS and to persons with Alzheimer's disease and other senile dementias.

Mental Illness and the Family in Multilevel Context

The sociology of mental health can make substantial strides in furthering our understanding of both the intergenerational transmission of mental illness and the experience of providing care to a family member with mental illness. It seems clear that the stress process model and the life-course perspective have had much to offer to these analyses.

Another major theoretical issue that deserves consideration concerns the study of mental illness in the family from a multilevel approach that takes into account geographic considerations. Very little research has considered the effects of macrolevel processes as moderators of the impact of mental illness on the family. Although there is a growing body of research that documents how characteristics of neighborhoods and schools exert important influences on children's and adolescents' mental health (Aneshensel, 2010; Aneshensel & Sucoff, 1996; Brooks-Gunn, Duncan, & Aber, 1997; Montazer & Wheaton, 2011; Wheaton & Clarke, 2003; Wight, Botticello, & Aneshensel, 2006), studies of the intergenerational transmission of mental health usually ignore the impact of these macrolevel factors. Children of mentally ill parents may be significantly more likely to experience mental health problems if they live in disadvantaged neighborhoods than if they grow up in more middle-class settings. Alternatively, social disadvantage may be such an important determinant of children's mental health that parental mental illness has little added effect. Sociologists have the expertise in multilevel investigations to explore these alternative hypotheses.

Similar issues need to be examined in studies of caregiving to individuals with mental illness. For example, it seems unlikely that the experiences of caregiving in disadvantaged neighborhoods will engender the same kinds of stressors and burdens as caregiving in a middle-class neighborhood. Moreover, the stigma associated with mental illness may vary substantially from community to community, affecting the caregivers' burden and distress.

Finally, all of these considerations suggest that sociologists need to devote additional effort to the development of a more comprehensive theoretical framework for the study of the impact of mental illness on the family. Despite some attempts to introduce the stress process paradigm and a life-course perspective to this area of research, there is a pressing need for the development of a more comprehensive framework. A theoretical paradigm that integrates concepts from the stress process model, life-course studies, theories about stigma, and considerations of power and exchange is likely to generate an abundance of interesting and important research questions. Moreover, if such theoretical integration were also to incorporate ideas from developmentalists and behavioral geneticists, a comprehensive appreciation of these complex processes might be achieved. The challenge for the sociology of mental health is to integrate research from various disciplines and to develop a new synthesis that demonstrates clearly how social structure and social processes play important roles in shaping the lives of families who experience mental illness.

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Chapter 27
Mental Illness and the Law

Virginia Aldigé Hiday and Heathcote W. Wales

Abbreviations

PMI	Persons with mental illness
OPC	Outpatient commitment
RCT	Randomized Controlled Trial
SSI	Supplemental Security Income
SSDI	Social Security Disability Insurance
MHC	Mental Health Court

In its distribution of benefits and burdens, the law employs the term "mental illness" and its synonyms in a variety of contexts to provide differential treatment of persons deemed to be so afflicted. In each legal context, the definition and scope of the class so labeled varies with the purposes of the legal rule at issue. Thus, even though the term remains the same, "mental illness" carries a variety of meanings for purposes of competency to make a will or contract, guardianship, eligibility for and management of government disability benefits or housing, employment discrimination, competency to stand trial, criminal responsibility, and involuntary treatment inpatient or outpatient (Wales, 2009, pp. 390–392).

The legal contexts attracting the principal academic attention of sociologists are those pertaining to the law's role as society's agent for controlling the deviant (nonnormative) behavior of persons with mental illness (PMI). In these contexts, the law strikes attitudes toward PMI that are at once protective/benevolent and fearful/distancing. The former is captured in the notion of *parens patriae*—that the state has a paternalistic duty and authority to assist those unable (by reason of illness, irrationality, immaturity, etc.) to care for themselves. The latter is captured in the police power of the state to take measures to protect citizens from harms inflicted by others. The two intersect in the popular belief that the behavior of those impaired in their capacity for rationality is unpredictable and that they therefore are dangerous (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Phelan & Link, 2004).

V.A. Hiday (✉)
Department of Sociology, North Carolina State University, Raleigh, NC 27695-8107, USA
e-mail: Ginny_Hiday@NCSU.edu

H.W. Wales
Georgetown University, Law Center, Washington, DC, USA

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The notions of incompetency (impaired capacity for rationality) and danger (to the person or property of others) are thus central to the law's differential treatment of PMI. Unfortunately, the law struggles to operationalize these concepts in measures that are capable of reliable application (Slobogin, 2007). Consequently, legal decision-makers—in what are often low-level, hurried proceedings in criminal and civil commitment contexts—are accorded substantial unguided discretion. Their tendency is to conflate "mental illness"—and the definitions thereof employed by those psychiatrists and psychologists serving as expert witnesses—with both concepts; this occurs despite the findings that PMI are substantially more competent, in the legal sense, and less dangerous, in particular less inclined to violence, than is popularly supposed (Grisso & Appelbaum, 1995; Hiday, 1995, 2006).

The central nonlegal fact determining the limited efficacy of the law's response to PMI is the paucity of money and resources devoted to the mental health system; thus, the system is one of triage. Triage means substantial and often exclusive reliance on medication for management of deviance associated with PMI. Hence, legal mechanisms are largely devoted to leveraging, by conditioning the receipt of government benefits, or coercing, by threat of hospitalization or jail, PMI to take medications to minimize their deviance (Bonnie & Monahan, 2005; Monahan et al., 2005; Wales & Hiday, 2006).

The Civil Law

Involuntary Hospitalization

Between the Civil War and the last quarter of the twentieth century, society controlled most deviance of PMI by civil commitment to large, isolated state mental hospitals. It essentially turned over nonconforming mentally ill persons—and many other deviants—to mental hospitals for care and treatment, but there was little or no effective treatment available and few resources to develop any treatment. The legal system and psychiatry operated in a paternalistic mode, assuming hospitals and doctors were doing what was best for patients while ignoring the increasingly deplorable conditions that came to exist in these vastly overcrowded and often unsanitary public mental institutions (e.g., Hiday, 2011).

At midcentury, journalistic exposés of these conditions, sociological studies of the harm of institutionalization and stigma, new pharmacological treatments, and the community mental health movement prepared the way for the spread of the civil rights reform for mental patients (e.g., Hiday, 1983). A mental health bar arose that sought to check abuses of prior paternalistic neglect by minimizing civil commitment, arguing that involuntary hospitalization was basically punitive with harmful outcomes. Beginning in the late 1960s, court cases and statutory reforms brought substantive and procedural changes in the law that granted mentally ill persons basic rights and placed limits on how they could be treated against their wills and for what reasons (Appelbaum, 1994; Hiday, 1983). These changes led to large reductions in hospital rolls from both fewer involuntary admissions and shorter stays, although some studies reported increased involuntary admissions after initial declines (e.g., Hiday, 1977). Over the longer term, civil commitment reforms combined with the concurrent passage of Medicaid and its use by states to shift costs to the federal government led to dramatic declines in the numbers of both voluntary and involuntary patients in state mental hospitals from almost 600,000 in 1955 to just under 50,000 in 2001 (Grofein, 1985; Grob, 2008; Rochefort, 1997).

Most nonadmitted and discharged mental patients stayed with or returned to their families or to voluntary care in local nonskilled nursing facilities and did not come into civil commitment proceedings again. However, large numbers of nonadmitted/discharged patients received little or no treatment or services to help them survive in the community. Some, unwilling or unable to comply voluntarily with treatment, fell into a revolving door syndrome in which they were involuntarily hospitalized, stabilized on medication, released, and then deteriorated without adequate treatment, and were involuntary hospitalized again, accounting for the increased admissions. Although involuntary admissions remain low today, they are still used for persons with severe mental illness in the revolving door syndrome and others in crisis whose behaviors are seen as dangerous to self or others.

Outpatient Commitment

One of the principles of civil commitment reform established in court cases and state statutes is the *least restrictive alternative* whereby persons meeting civil commitment criteria were not to be involuntary hospitalized when their dangerous behavior could be controlled in less restrictive ways. Outpatient commitment (OPC), a legal mandate ordering an individual to obtain treatment in the community while allowing that individual to go about daily activities freely, developed as one such less restrictive alternative (Hiday & Goodman, 1982). Although conditional release had been used by hospitals to coerce patients to obtain community treatment under the threat of rehospitalization, reform legislation allowed commitment to community treatment *instead of* involuntary hospitalization (Wales & Hiday, 2006). Some states later extended OPC to address the revolving door syndrome with "preventive" OPC whereby community treatment could be ordered for mentally ill persons who did not yet meet the involuntary hospitalization criteria but who were unwilling or unable to accept treatment voluntarily and who had a history indicative of the need for treatment to prevent deterioration leading to multiple hospitalizations or dangerousness to self or others (Hiday & Scheid-Cook, 1987; Link, Epperson, Perron, Castille, & Yang, 2011; Wales & Hiday, 2006).

OPC has been controversial because of its extension of the state's coercive power from the hospital to the community (Wales & Hiday, 2006); the relatively few extant empirical reports indicate that no net widening has occurred (Geller, Fisher, Grudzinskas, Clayfield, & Lawlor, 2006; but see Wales & Hiday, 2006, pp. 460–462). In fact, OPC has been used infrequently in most jurisdictions since its beginning because of liability concerns, funding conflicts, inadequate resources, logistical and infrastructure problems, ignorance of the law, skepticism, and inertia (e.g., Christy, Petrila, McCranie, & Lotts, 2009; Wales & Hiday, 2006). Reports from various jurisdictions range from no use to OPC constituting a quarter of outpatients and a quarter of involuntary hospital admissions (e.g., Burgess, Bindman, Leese, Henderson, & Szmukler, 2006; Dawson, 2005; Geller et al., 2006; Hiday & Goodman, 1982; Hiday & Scheid-Cook, 1987; Monahan et al., 2005). In some instances of OPC orders, mental health centers or individual clinicians do not assume responsibility for ensuring treatment such that no intended monitoring, treatment, or service provision transpires; thus, OPC fundamentally does not occur in actuality (Wales & Hiday).

Observational studies of OPC in its first 12–15 years reported positive effects on treatment compliance and safety in the community, but these studies were subject to selection bias. Skepticism that persons meeting involuntary commitment criteria for dangerousness could be treated safely in the community likely led to selection into OPC on the basis of traits predictive of low risk such as family support, employment, and no history of violent acts (Hiday & Goodman, 1982). Later studies conducted after mental hospitalization was reduced to a minimum ran into the opposite bias: Selection into OPC occurred because of a higher risk of noncompliance and dangerousness (McKenna, Simpson, & Coverdale, 2006; Vaughan, McConaghy, Wolf, Myhr, & Black, 2000). Randomized Controlled Trials (RCT) can overcome these selection problems of naturalistic studies, but only two RCTs, with both experimental (court treatment order) and control (no treatment order) groups receiving comparable community treatment, have been published.

The first RCT reported numerous positive outcomes (lower victimization, increased treatment compliance, and better quality of life) as days under OPC orders increased (Elbogen, Swanson, & Swartz, 2003; Hiday, Swartz, Swanson, Borum, & Wagner, 2002; Swanson, Swartz, Elbogen, Wagner, & Burns, 2003). Other positive outcomes (fewer hospital admissions and days, fewer acts of broadly defined violence, and better treatment adherence) occurred only when the orders were extended beyond their initial 3 months and when combined with more frequent mental health services (Swanson et al., 2000; Swartz et al., 1999). There is a question of whether these last three outcomes may have been due to delayed selection bias as extension of OPC orders was not random. The second RCT (Steadman et al., 2001), which followed the same design, ran into technical difficulties that crippled its ability to evaluate OPC (enforcement mechanisms not in place, many control subjects thinking they were on OPC with orders to comply with treatment, subgroup sizes too small to obtain significance on clearly apparent trends, and most damaging, significantly more substance abusers among the experimental [OPC] group). The study reported no statistical difference on multiple outcomes between the experimental and control groups (Steadman et al.). Some have interpreted this lack of significance as indicative of OPC's inability to improve conditions for persons with severe mental illness (e.g., Pollack, McFarland, Mahler, & Kovas, 2005), but the finding of no difference in outcomes despite OPC's disproportionately high substance abusers arguably suggests that OPC did indeed work better than treatment without a court order.

Costs have precluded more RCTs of OPC, but recent quasi-experimental studies using comparison groups, pre-post designs, and controls for confounders have consistently reported positive effects of OPC on medication adherence and use of outpatient mental health services (Pollack et al., 2005; Segal & Burgess, 2006; Swartz et al., 2010; Van Dorn et al., 2010) and reduced emergency commitments (Christy et al., 2009), but mixed results on mental hospitalization and arrests (Frank, Perry, Kean, Sigman, & Geagea, 2005; Gilbert et al., 2010; Link et al., 2011; Pollack et al., 2005; Segal & Burgess, 2006; Van Dorn et al., 2010). Two New York studies have reported improvements in other outcomes less frequently measured: functioning (Link, Castille, & Stuber, 2008; Phelan, Sinkewicz, Castile, Huz, & Link, 2010), quality of life (Link et al., 2008; but Phelan and colleagues, 2010, found no change in quality of life), violence, and suicide risk (Phelan et al., 2010).

Studies of patient opinions of OPC indicate ambivalence: dislike of its coercive elements but appreciation of the help, structure, safety, and security obtained while on OPC orders (Gibbs, Dawson, Ansley, & Mullen, 2005; Link et al., 2008; O'Reilly, Keegan, Corring, Shrikhande, & Natarajan, 2006). Except for a few persons who remain resentful of the treatment order, OPC's coercive aspects do not appear to interfere appreciably with building therapeutic relationships and benefiting from treatment (Gibbs et al., 2005; Link et al., 2008; Phelan et al., 2010). Taken together, results from all studies representing numerous jurisdictions with variation in legal provisions, enforcement mechanisms, and mental health systems provide substantial empirical evidence that OPC can work to maintain a significant proportion of severely mentally ill persons safely in the community who would otherwise be in a revolving-door scenario.

Other Forms of Leveraged Treatment

There are two other applications of the civil law besides OPC that are used to leverage (pressure or coerce) patients with mental illness to accept psychiatric treatment in the community: (1) representative payees for persons who are deemed unable to manage their Social Security or Veterans Administration payments and (2) requirements attached to obtaining and maintaining supported housing (Monahan et al., 2005). Social Security Administration (2010) data indicate that 37.5% of the 1.7 million adults under 65 years with a mental disorder who receive payments for mental disability have representative payees. In a survey of severely mentally ill patients awaiting discharge from involuntary hospitalization to outpatient commitment, 29% had a representative payee and an additional 14% had their finances managed informally by others (Elbogen, Swanson, & Swartz, 2003). Most of these patients said they had sufficient money for necessities and desired activities, but a minority complained of insufficient money, which varied by spending category from 7% reporting insufficient funds for housing to 44% for enjoyable activities (Elbogen, Swanson, Swartz, & Wagner, 2003). According to a multicity survey of outpatients with severe mental illness in public mental health systems, 7–25% have their Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) checks sent to representative payees, most frequently immediate family members or mental health providers (Monahan et al.). Fifteen to thirty-three percent of patients reported that their representative payees use the payments to leverage their compliance with medication and treatment appointments, and abstinence from alcohol and illegal drugs (Appelbaum & Redlich, 2006; Elbogen, Swanson, Swartz, et al., 2003; Luchins, Roberts, & Hanrahan, 2003; Monahan et al., 2005). Those who were subject to formal or informal money leverage felt more coercion and less autonomy; nonetheless, they thought that it was effective as a tool to obtain treatment compliance (Appelbaum & Redlich, 2006).

Among the legal mechanisms used to mandate community treatment, housing is most often used as leverage. The above-mentioned multicity study of severely mentally ill outpatients reported that 23–40% had lived "somewhere where they were required to stay in mental health or substance abuse treatment or required to continue taking [their] medication" (Monahan et al., 2005). Federal, state, county, and city subsidized housing programs for severely mentally ill persons who otherwise would be homeless characteristically require both sobriety and participation in mental health and substance abuse treatment to keep program housing and move through a step-by-step progression of services from initial outreach to transitional housing (e.g., safe haven, shelter), to congregate living facilities (e.g., group homes), and finally to independent housing (Culhane, Metraux, & Hadley, 2002; Gonzales & Rosenheck, 2002; Skeem, Markos, Tiemann, & Manchak, 2006; Tsemberis & Eisenberg, 2000). The few studies of supportive housing report positive effects over time in reducing homelessness and shelter use while increasing residential stability (Skeem et al., 2006; Tsemberis, Gulcur, & Nakae, 2004); reducing days in state mental hospitals, public city hospitals, jails, and prisons (Culhane et al., 2002); and improving mental health and abstinence (Gonzales & Rosenheck, 2002; Greenwood, Schaefer-McDaniel, Winkel, & Tsemberis, 2005; Skeem et al., 2006). However, these programs have high dropout rates because of the abstinence and treatment compliance requirements. To include dropouts and refusers, some localities have tried a new model, *Housing First*, that provides supported independent housing immediately on outreach with no demand of abstinence or treatment. This model does require participation in a money-management plan and meeting with staff at least twice monthly, and it offers modified assertive community treatment (ACT) to reduce harm (Tsemberis & Eisenberg, 2000; Tsemberis et al., 2004). One study has shown that *Housing First* produces larger increases in residential stability than the more coercive step model (Tsemberis et al.), but when an independent housing program has no legally mandated treatment, some landlords informally insist on medication compliance and participation in treatment programs as conditions of continued residence (Monahan et al., 2001).

The Criminal Law

Arrests

Police are frontline law enforcers. They employ multiple methods to keep order, arrest being only one. Observational studies in the USA find that most police interactions with mentally ill persons, as with persons who are not mentally ill, do not lead to arrest (Engel & Silver, 2001; Teplin & Pruett, 1992; Watson & Angell, 2007). Police calm confrontations, mediate disputes, offer solutions, placate complainants, provide transportation to mental health facilities, and give assistance to those victimized, and for PMI, they also act as "street corner psychiatrists" (Teplin & Pruett). When there is evidence of law violation, police prefer informal management, limiting arrest to situations that are likely to reignite and require reintervention, or situations in which a person shows disrespect (Engel & Silver, 2001; McNiel, Hatcher, Zeiner, Wolfe, & Myers, 1991; Novak & Engel, 2005; Steadman, Deane, Borum, & Morrissey, 2000; Teplin, 1994; Watson, Corrigan, & Ottati, 2004). Even then police tend to choose mental health treatment over arrest when the individual is a known mental patient, manifests obvious mental disorder symptoms, or appears to lack criminal intent (Engel & Silver, 2001; McNiel et al., 1991).

The treatment option is more likely to be chosen when the community has adequate mental health resources and when there is a cooperative program between police and mental health agencies such as an intervention team, a crisis unit, and especially a no-refusal mental health facility that is open 24/7 (Grudzinskas, Clayfield, Roy-Bujnowski, Fisher, & Richardson, 2005; McNiel et al., 1991; Skeem & Bibeau, 2008; Steadman et al., 2000). But most communities lack adequate mental health resources and social services. However, service inadequacy in the face of the large numbers of poor persons with severe mental illness who have been living in the community since deinstitutionalization has increased the likelihood of homelessness and substance abuse that, in turn, increase the likelihood of illegal behavior and subsequent arrest (Draine, Salzer, Culhane, & Hadley, 2002; Fisher, Silver, & Wolff, 2006; Hiday & Wales, 2011; Swartz & Lurigio, 2007). To make matters worse, mental health practitioners have often resisted treating criminal offenders and substance abusers (Steadman et al., 2000; Watson & Angell, 2007).

Studies reporting rates of arrest (number of arrests per 100 sample members) or percentages of persons arrested in samples show persons with severe mental illness to have higher arrest rates and percentages arrested than those of the general population (e.g., Crocker, Hartford, & Heslop, 2009; Fisher et al., 2011; Hiday, 1991). One study estimated their likelihood of arrest to be larger for all categories of crime, ranging from 1.84 times as likely for drug-related offenses to 4.72 times as likely for offenses against public decency, with the exception of one category, assault and battery on a police officer that was almost six times as likely (Fisher et al.). The last offense is often charged in cases of resisting arrest, an action more common among mentally ill suspects, especially those intoxicated (Novak & Engel, 2005).

In any 1 year arrests tend to be concentrated among less than a fourth of any sample of persons with severe mental illness (Borum, Swanson, Swartz, & Hiday, 1997; Hiday, 1992; Swanson et al., 2001); over longer periods, slightly more are arrested with reports of 24–28% over a decade (Cuellar, Snowden, & Ewing, 2007; Fisher, Roy-Bujnowski, et al., 2006) and 38–51% over lifetimes (Monahan et al., 2005; Theriot & Segal, 2005).

Samples of PMI in all these arrest studies are drawn from the public mental health system that excludes two groups: (1) the larger number of PMI who are treated privately and (2) the even larger number of those who are not in any treatment. These samples are, thus, not representative of the population of persons with mental illness. In particular, these samples overrepresent persons of lower socioeconomic status affected by multiple socio-environmental factors that exist in poor, crime-ridden, drug-infested, deteriorating neighborhoods with high rates of broken families, unemployment, and homelessness that put them at higher risk of arrest than the general population (Draine et al., 2002; Hiday & Wales, 2011; Kushel, Hahn, Evans, Bangsberg, & Moss, 2005; Sheldon et al., 2006).

Although public mental health clients have a greater chance of arrest than members of the general population, the pattern of types of offenses for which they are charged is similar: The majority of their offenses tend to be misdemeanors rather than felonies; despite media feature stories of mentally ill persons assaulting, raping, and murdering (e.g., Angermeyer & Schulze, 2001), only a few persons with severe mental illness are charged with such violent crimes (Borum et al., 1997; Engel & Silver, 2001; Fisher, Roy-Bujnowski, et al., 2006; Hiday, 1992; Shafer, Arthur, & Franczak, 2004; Swanson et al., 2001). In fact, empirical studies indicate that persons with severe mental illness whom police arrest tend to be charged with nonviolent offenses, most commonly nuisance and survival crimes such as trespassing, loitering, vagrancy, disturbing the peace (loud/obnoxious behavior), disorderly conduct, indecent exposure (for urinating in public), shoplifting, failure to pay for meals ("dine and dash"), passing bad checks, and vandalism. Substance-related crimes (drunkenness, drunk driving, and use and distribution of illegal drugs) are the second most common (Borum et al., 1997; Engel & Silver, 2001; Fisher et al., 2011; Hiday, 1992; Swanson et al., 2001), but they are often responsible for some of the misdemeanors and assaults (Junginger, Claypoole, Laygo, & Crisanti, 2006; Peterson, Skeem, Hart, Vidal, & Keith, 2010; Swartz & Lurigio, 2007).

Three recent studies of arrests over longer time periods (a decade and lifetime) reported a similar pattern of offenses among pubic mental health clients as that found for shorter periods of time (1 year or less). For instance, the largest category of charges to those with severe and persistent mental illness in the Massachusetts public mental health system over a decade was subsistence and nuisance crimes, which accounted for 28.3% of offenses, followed by property crimes (20.1%) which were almost all theft, some of which were likely to have been for subsistence (Fisher, Roy-Bujnowski, et al., 2006). But these longer term studies differ from short-term studies in having larger proportions charged with more serious offenses (Cuellar et al., 2007; Fisher, Roy-Bujnowski, et al., 2006; Theriot & Segal, 2005). In two of the studies, most of those arrested had at least one felony charge (Fisher, Roy-Bujnowski, et al., 2006; Theriot & Segal, 2005; the third study did not report felonies), and two of the studies reported higher levels of violent crimes (38% and 50%), although the seriousness of the violence was unclear (Cuellar et al., 2007; Theriot & Segal, 2005). Some studies that examined the context of violent charges indicate that PMI who physically resist arrest are commonly charged with assault on a police officer, and their other assault charges are frequently due to fighting with associates (Moore & Hiday, 2006; Junginger et al., 2006; Shafer et al., 2004). The one study reporting serious violent crimes (murder, nonnegligent manslaughter, forcible rape, robbery, aggravated assault, and assault and battery) found PMI to account for only slightly more arrests than studies with shorter follow-up periods (13.6% vs. 10%; Fisher, Roy-Bujnowski, et al.).

It must be noted that most persons with severe mental illness are not likely to become violent; that when they are, it is more likely to take the form of threats and more likely to be directed to themselves rather than to others; that when it is directed to others, the others tend to be family members and associates with whom they have ongoing altercations in which the others are frequently violent toward them; that the actual violent behavior tends to be hitting, kicking, pushing, pulling hair, and throwing objects; that the harm they inflict, if any, tends to be minor; and that they tend to be victims of others' violence more often than perpetrators of violence (Choe, Teplin, & Abram, 2008; Hiday, 2006; Hiday, Swartz, Swanson, Borum, & Wagner, 1998; Teplin, McClelland, Abram, & Weiner, 2005).

Incarceration

Among the large number of persons in the US criminal justice system, persons with mental illness are overrepresented not only among arrestees but also among those detained and incarcerated (e.g., Baillargeon et al., 2008; Ditton, 1999; Teplin, 1990a; Teplin, Abram, & McClelland, 1996). Estimates of the rate of mental disorder among persons in jails and prisons show wide variation depending on measures, methodologies and demographic group (Corrado, Cohen, Hart, & Roesch, 2000; Ditton, 1999; McNiel, Binder, & Robinson, 2005; Steadman, Osher, Robbins, Case, & Samuels, 2009; Teplin, 1994; Teplin et al., 1996). The most frequently quoted rate, 16% (Ditton, 1999), reflects a broad measure of mental illness. A more restrictive definition (severe mental illness) and use of standardized, forced-choice interviews (i.e., the Diagnostic Interview Schedule) yield substantially lower lifetime prevalence rates, about 9% (Teplin, 1990a, 1994): but even these rates are two to three times greater than those in the general population (Teplin, 1990a). The latest study of five jails in two states using the Structured Clinical Interview for DSM Disorders reported current prevalence of serious mental illness to be 16.9%, more than double that in Teplin's classic study, 6.4% (Steadman et al.). Extrapolating this rate to jail admissions across the country, the authors calculated that there were over two million persons with serious mental illness admitted to local jails in 2007. So many are detained and incarcerated that on any 1 day more persons with severe mental illness are held in jails than are admitted to state mental hospitals (Morrissey, Meyer, & Cuddeback, 2007).

As with others in the criminal justice system, persons with mental illness tend to be single, male, young, poor, Black or from other minority groups, unemployed, homeless, and with low levels of education (Ditton, 1999; Fisher et al., 2011; Hiday, 1992; Sheldon et al., 2006; Steadman et al., 2009; Teplin et al., 1996). Although males are the majority of inmates, the number of women in all parts of the criminal justice system has been growing (Chesney-Lind & Pasko, 2004), and incarcerated women have two times the rate of serious mental illness as their male counterparts (31.0% vs. 14.5%, Steadman et al., 2009; 12.2% vs. 6.4%, Teplin, 1990a; Teplin et al., 1996). Female offenders with mental illness are more likely than comparable males to be young with less education, to be substance abusers and substance dependent, to have suffered trauma and victimization, and to have post-traumatic stress disorder, but they are less likely to have a personality disorder (Abram, Teplin, & McClelland, 2003; Blitz, Wolff, Pan, & Pogorzelski, 2005; Teplin et al., 1996). In prison, they are more than twice as likely as males to receive psychotropic medication and mental health therapy/counseling (Beck & Maruschak, 2001).

The disproportionate number of persons with severe mental illness who are arrested, detained, and incarcerated coupled with the historic, negative stereotype of persons with severe mental illness being violent (Link et al., 1999; Monahan, 1992) supports the belief that mental illness drives individuals to commit crimes, especially violent crimes. This belief underlies the legal verdict NGRI (not guilty by reason of insanity) that is based on the premise that mental illness can cause an individual to become insane, impairing the individual's capacity for rationality so as to distort the decision to engage in specific behaviors. Although there are cases of violent crimes propelled by psychotic hallucinations and delusions that threaten and take control away from the individual, such cases are rare (Fisher, Roy-Bujnowski, et al., 2006; Hiday, 2006; Junginger et al., 2006; Peterson et al., 2010). In fact, empirical evidence does not support the belief that severe mental illness is the main, direct cause of violent or other criminal offending (Fazel, Lichtenstein, Grann, Goodwin, & Långström, 2010; Fisher, Silver, et al., 2006; Hiday, 2006; Silver, 2006).

Although large community, birth cohort, and treatment studies report a statistically significant association between severe mental illness and all crime, violent crime, and violence without reference to arrest, the association is modest in magnitude (Baillargeon et al., 2008; Hiday, 2006; Link & Stueve, 1994). Many of these studies do not control for spuriousness resulting from sociodemographic factors that are associated with both mental illness and offending. Notably missing are controls for residence in disadvantaged neighborhoods, family correlates, and substance abuse/dependence, perhaps the strongest predictor of violence and offending. Studies that do control for such confounders report the relationship to be significantly reduced or even eliminated (Elbogen & Johnson, 2009; Fazel et al., 2010; Link, Andrews, & Cullen, 1992; Sheldon et al., 2006; Silver, 2000, 2006; Steadman et al., 1998; Swanson et al., 2002). In a meta-analysis of recidivism studies, Bonta, Law, and Hanson (1998) found no clinical symptom, pattern, or diagnosis to be associated with rearrest for violent or nonviolent offenses. Instead, they and subsequent researchers have found a common set of characteristics that offenders with mental illness share with other offenders: single, young, male, minority, low education, poor, unemployed, homeless, resident of a disadvantaged neighborhood, victimization, substance abuse, criminal history, family histories of multiple dysfunctions—especially physical/sexual abuse and criminal and/or substance abusing parents—and early evidence of antisocial and aggressive behavior (e.g., Bonta et al., 1998; Crocker et al., 2005; Fazel et al., 2010; Lang, af Klinteberg, & Alm, 2002; McNiel et al., 2005; Sheldon et al., 2006; Silver, 2000, 2006; Swanson et al., 2002).

Extremely high levels of both substance misuse and antisocial tendencies (as measured by psychopathy, criminal thinking, or antisocial personality disorder diagnosis) are found among offenders with and without severe mental illness. For instance, Abram and Teplin (1991) reported rates so high among male jail detainees with a major mental illness that only 6.4% had neither substance abuse/dependence nor antisocial personality disorder. Morgan, Fisher, Duan, Mandracchia, and Murray (2010) reported almost two-thirds of mentally ill prison inmates endorsed measures of overt criminal thinking that are supportive of a criminal lifestyle; even larger proportions (85% males, 72% females) scored in the high range of antisocial attitudes, values, and beliefs related to criminal activity. Findings from large clinical and population studies of persons with mental illness suggest that the deviance of persons with severe mental illness that is controlled by the criminal justice system is more likely the result of substance abuse and/or antisocial tendencies and their sequelae than the result of mental illness itself (Mulvey et al., 2006; Pandiani, Rosenheck, & Banks, 2003; Poythress, Skeem, & Lelienfeld, 2006; Steadman et al., 1998; Swartz & Lurigio, 2007). Two recent interview studies of offenders (one of jail diversion participants and one of prison parolees) examining reasons for behavior leading to arrest found that only a small proportion was arrested for offenses caused either directly or indirectly by psychiatric symptoms (Junginger et al., 2006; Peterson et al., 2010). Researchers described most parolee offenses as reactive antisocial, driven by hostility and impulsivity (90% of those with mental illness, 68% for those without), and few offenses of those with mental illness as drug or gang related, but did not mention those caused by alcohol abuse (Peterson et al.). Researchers attributed direct or indirect causation to substance abuse in just under one-third of arrests of the diverted offenders (Junginger et al.).

Criminal Justice Treatment

Most jails neither provide treatment while persons with severe mental illness are detained or incarcerated, nor are linkages to treatment and community services provided on exit, despite the high likelihood that their mental status will deteriorate under conditions of crowded confinement (Hartwell, 2004; Teplin, 1990b). Although court decisions require that incarcerated persons be provided medical and behavioral health treatment, relatively few persons with severe mental illness in jails receive any treatment (Teplin, 1990b). In contrast, almost four-fifths of state prisons screen and give psychiatric assessment, provide therapy/counseling, and dispense psychoactive medication, which results in 13% of inmates receiving some mental health therapy/counseling and 10% receiving psychoactive medication (Beck & Maruschak, 2001). However, connection to community mental health services on release is lacking (Hartwell, 2004, 2005; Skeem, Louden, Polascek, & Camp, 2007). Neglect of the mental health problems of these released offenders coupled with their return to disadvantaged neighborhoods without social capital or supportive services (Carpiano, 2006; Kushel et al., 2005; Pogorzelski, Wolff, Pan, & Blitz, 2005) has produced a second revolving-door scenario of arrest, jail, and release back into the community, where the same conditions that led to earlier offending then lead to reoffending and rearrest (Blitz et al., 2005; Hartwell, 2004; Moore & Hiday, 2006).

There are two groups of defendants with mental illness who are exceptions to treatment neglect: (1) the minority sent for evaluation of incompetency to stand trial (IST) who receive treatment to restore their competence so that they are able to understand the nature and purpose of the criminal proceedings and to assist counsel in their defense (American Bar Association, 1989; Crocker et al., 2005; Hubbard, Zapf, & Ronan, 2003) and (2) the even smaller minority (less than 1%) found not guilty by reason of insanity (NGRI), most of whom are sent to mental hospitals and a smaller proportion ordered to treatment in the community (Crocker et al., 2005; Hubbard et al., 2003; Silver, 1995; Silver, Cirincione, & Steadman, 1994). Even so, those falling in these two categories are likely to have little or no community services linkage when released.

Diversion

Some local jurisdictions have attempted to address the relatively late-recognized problem of revolving in and out of the criminal justice system by diverting PMI to receive mental health treatment. These jurisdictions have established various programs to intervene at different points along the path from police encounter to arrest, detention, prosecution, and incarceration. To avoid arrest, police departments have developed prebooking interventions that include training police for recognition of and dealing with persons with mental disorders, especially those in crisis, hiring mental health professionals to work with police in the field, and establishing specialized police units for mental health crises (Broner, Lattimore, Cowell, & Schlenger, 2004; Draine, Blank, Kottsieper, & Solomon, 2005; Skeem & Bibeau, 2008; Teller, Munetz, Gil, & Ritter, 2006). Prebooking programs most likely to lead to mental health diversion instead of arrest are those with a no-refusal mental health center where police can take and leave offenders with mental illness 24/7 (e.g., Steadman et al., 2000). Some postbooking interventions that attempt to provide treatment and an alternative to incarceration at the earliest point screen and assess all new jail detainees for pretrial release and referral to mental health services. On positive identification of mental illness, these interventions may provide in-jail treatment and case management, pretrial court services involving evaluation and treatment recommendations to the court that may order treatment in conjunction with pretrial release or probation, direct court supervision and support for treatment in multiple status hearings over time, or reentry treatment and case management with linkage to community mental health and social service agencies. Model programs have early identification, integrated substance abuse and mental health treatment, cooperative mechanisms of regular meetings of key agency personnel, strong leadership, and designated boundary spanners in mental health, social service, and criminal justice systems (e.g., Grudzinskas et al., 2005; Steadman et al., 2000).

Empirical research indicates that diversion programs can increase services, reduce jail days, and increase time in the community without increasing psychotic behavior, substance abuse, or arrests (Broner et al., 2004; Christy, Poythress, Boothroyd, Petrila, & Mehra, 2005; Frisman et al., 2006; Moore & Hiday, 2006); however, increases in services for those diverted compared to non-diverted controls, while significant, have tended to be small, that is, the increase in number, frequency, and intensity of services was not large and was substantially less than recommended to meet the need of those diverted (Boothroyd, Poythress, McGaha, & Petrila, 2003; Broner et al., 2004). In such cases, even though arrests showed no increase, there was not the intended *reduction* in offending and arrests (Broner et al., 2004; Chirsty et al., 2005; Frisman et al., 2006; Morrissey et al., 2007). Too often the diversion of these programs was *out of* the legal system but *not into* the mental health system (despite cooperation agreements) (Broner et al., 2004; Boothroyd et al., 2003) or was to mental health treatment-as-usual rather than to specialized services designed to impact the criminal behavior of defendants (e.g., Fisher, Silver, et al., 2006; Morrissey et al., 2007). When prebooking programs avoid arrest and postbooking programs release offenders with mental illness before their trials or shortly thereafter, there will be a reduction in jail days. While saving taxpayer money, and avoiding and reducing jail time, without more services, this practice fails to address the root problems of PMI revolving through the criminal justice system. Many of those so diverted are left without needed treatment and services only to return to former neighborhoods, associates, and ways that almost inescapably lead to their reoffending and rearrest.

To reduce criminal behavior among offenders with mental illness, communities need well-resourced programs that provide integrated mental health and substance abuse treatment and that also address social-environmental factors such as homelessness, unemployment, and criminogenic factors such as criminal thinking and social networks. Forensic assertive community treatment (FACT)—essentially assertive community treatment with a supplemental component that attempts to deal with criminal thinking and behavior and incorporates probation/parole offices as team members—is one such program that has produced positive results in terms of reduced substance abuse, arrests, jail days, and hospitalization; however, many FACT programs lack fidelity to the model and show no positive criminal recidivism outcome (Cusack, Morrissey, Cuddeback, Prins, & Williams, 2010; Lamberti, Weisman, & Faden, 2004; Morrissey et al., 2007).

Mental Health Courts

The most complex organization diversion model, the mental health court (MHC), embodies the components predicted to be successful in reducing criminal recidivism but adds court monitoring to give structure, support, encouragement to, and supervision of both defendants and service providers for a sustained period (Almquist & Dodd, 2009; Moore & Hiday, 2006). In contrast to traditional criminal courts, an MHC has (1) a separate docket, (2) one or two dedicated judges who preside at all hearings, (3) dedicated prosecution and commonly dedicated defense attorneys, (4) a nonadversarial team approach involving consensus decisions by law and mental health professionals, (5) voluntary participation of defendants, and (6) dismissed charges or avoidance of incarceration after successful completion of mandated treatment, depending on whether the defendant enters pre- or postadjudication.

Defendants agree to comply with court mandates that include following an individualized treatment regimen and appearing at regularly scheduled court sessions. Defense and prosecuting attorneys do not dispute innocence or guilt. Rather, they work as a team with judges, criminal justice personnel, mental health practitioners, and other providers to find treatment and services that address the underlying causes of each defendant's behavior—the mental illness itself, any co-occurring substance abuse, and the disadvantages of mental illness such as lack of income, employment, and housing—while protecting the public. Team members recognize relapse is common, and they offer second chances to help defendants try again to change their behavior leading to offending, but they enforce compliance and maximize defendants' motivation to change by using encouragement and graduated sanctions from more frequent court appearances to overnights in jail (Almquist & Dodd, 2009; Griffin, Steadman, & Petrila, 2002; Moore & Hiday, 2006; Redlich, Steadman, Monahan, Robbins, & Petrila, 2006; Redlich et al., 2010). Clinicians and case managers take primary responsibility for designing individually tailored treatment plans that may include medication, individual therapy, anger management, substance abuse counseling, AA, job placement, and housing. All team members work to provide structure, supervision, and encouragement for each defendant in order to improve functioning and reduce offending (Almquist & Dodd, 2009; Hiday, Moore, Lamoureaux, & de Magistris, 2005). These processes, with slight variations, prevail whether MHCs limit eligibility to nonviolent offenders (fearing serious harm from defendants), to misdemeanants (fearing public outcry over more serious offenders being handled too softly), or to felons (believing their longer sentences and the stronger sanction of return to prison are necessary to effect treatment compliance and behavioral change), or require more frequent and/or longer duration of court appearances (Hiday & Ray, 2010; Wales, Hiday, & Ray, 2010).

Given their relatively recent beginnings (late 1990s), there are few evaluations of the effects of MHC, but the few existing studies consistently find that defendants obtain more treatment while participating in MHCs than they did before entry into the MHC and more treatment than similar defendants in traditional criminal court (Boothroyd et al., 2003; Cosden, Ellens, Schnell, Yamini-Diouf, & Wolfe, 2003; Herinckx, Swart, Ama, Dolezal, & King, 2005; McNiel & Binder, 2007; Ridgely et al., 2007; Steadman, Redlich, Callahan, Robbins, & Vesselinov, 2011). Additionally, regardless of the type of offense, MHC defendants have lower arrest rates and percentages offending afterward than they did before MHC entry, and they are no more likely to reoffend than defendants with mental illness in traditional criminal court, even though they are at greater risk of reoffending because they are in the community longer (Herinckx et al., 2005; Moore & Hiday, 2006; McNiel & Binder, 2007; Ridgely et al., 2007; Steadman et al., 2011). There were initially mixed results about whether MHC defendants have a *lower likelihood* of reoffending than comparable traditional criminal court defendants, but recent studies indicate that MHCs reduce recidivism beneath the level of traditional criminal courts (McNiel & Binder, 2007; Moore & Hiday, 2006; Ridgely et al., 2007; Steadman et al., 2011) and accordingly reduce time spent in jail (e.g., Christy et al., 2005; Steadman et al., 2011).

As with OPC, there is a dearth of RCTs to evaluate MHCs; thus, all outcome studies except one RCT suffer from selection bias despite quasi-experimental designs and use of propensity scores in the better studies. Selection bias can arise from both court officers who select defendants most likely to succeed and defendants who are most motivated to change and take the opportunity to get the help offered by the court. No study has tested the mechanisms by which MHCs produce reduced criminal recidivism. According to the logic behind their creation, it is treatment of the underlying mental illness that should alleviate the cause of offending (Almquest & Dodd, 2009; Moore & Hiday, 2006), but as we have seen, the main cause of offending by PMI lies elsewhere in most instances. Furthermore, successful MHCs do more than marshal resources to provide mental health/substance abuse treatment: They also monitor and sanction compliance with that treatment and with behavioral mandates, and they provide supportive services to reduce or remove at least some criminogenic socioeconomic and environmental influences (Fisler, 2005; Hiday & Ray, 2010; Moore & Hiday, 2006; Redlich et al., 2010). These interventions have not been assessed in terms of type, level, and adequacy relative to individual needs. Also needing to be measured and tested are the court processes that may make a difference in motivating behavioral changes. The manner in which MHCs, as opposed to traditional criminal courts, interact with defendants appears to make a difference in defendants' changing their offending behaviors. Two observational studies suggest that procedural justice (that is fair and gives defendants voice, validation, and respect; Wales et al., 2010) and reintegrative shaming (that condemns offenses but not offenders, and forgives and welcomes offenders back into community; Ray, Dollar, & Thames, 2011) are important practices by which MHCs operate to reduce criminal recidivism. Testing these two procedural mechanisms must wait until studies that are in progress have completed their follow-up periods.

Conclusions and Remaining Questions

Many of the same individuals with mental illness who are leveraged into treatment by the civil law are charged with offenses by the criminal justice system, which then tries and punishes them with incarceration or probation, releases them into the community without any supports and services, or diverts them back into the mental health system. The mental health system, whether sent PMI by civil or criminal courts, commonly has too few resources to provide treatment addressing their mental disorders, much less provide the multiple services addressing their criminogenic behavior patterns and social environments.

Coerced treatment by either the civil or criminal court systems is likely to have the intended impact on improved functioning and behavior, including reduced offending, only if and when society makes significant funding commitments to needed treatment and services for PMI. Thus, the success of treatment, along with the choices made by local bureaucrats between civil and criminal paths for leveraging it, is most often explained by following the money trail (Grob, 2008). Although many federal, state, and local governments have been willing to provide additional funds to the criminal justice system for diversion programs under the banner of community safety, with few exceptions they have made relatively meager provision to mental health and welfare agencies for treatment and service needs of PMI who are added to agency rolls by either civil or criminal court orders (e.g., New York's outpatient commitment statute, Link et al., 2011; Wales & Hiday, 2006).

Given limited resources, what happens to voluntary patients when courts send new patients and old intermittent patients into existing programs for sustained treatment? As we have seen, most of those sent receive inadequate treatment (Boothroyd et al., 2003; Broner et al., 2004), but do those the courts send displace those asking for treatment? In the initial period after the passage of New York state's OPC statute, which allocated additional funding for treatment and services, those on new OPC orders received priority in allocation of assertive community treatment and intensive case management, effectively displacing voluntary patients to further back in the line, but after 3 years, intensive services increased for both groups (Swanson et al., 2010). What is the effect of OPC and MHC programs on community mental health services? When they leverage coordination and integration of service providers, do these improvements carry over throughout the mental health and social service systems?

Although studies have shown OPC and MHCs to have positive effects on PMI for up to 2 years after expiration of court orders, what happens to them in the longer term? Because of the persistence of their severe mental disorders, they will have a continuing need for treatment and services. Will the benefits obtained and alliances formed during participation in these programs lead to their voluntarily seeking and obtaining needed care? What proportion will deteriorate to the point of reoffending or becoming dangerous so as to need legal intervention to coerce treatment in the community, in hospitals, or in jails?

How do MHCs and OPC compare in controlling the deviant behavior of PMI who revolve through both the criminal justice and civil commitment systems? Is one better than the other in reducing criminal recidivism, violence, victimization, substance abuse, and treatment nonadherence, and in improving quality of life? Is one better than the other in reaching these goals for certain types of persons? How do MHCs and OPC compare with less formal coercive programs such as supportive housing and representative payees in reaching these goals?

The current tilt toward the criminal justice system raises further questions. What is the effect of MHCs on traditional criminal courts? Do they become more sensitive to mental disorder or to the need to change socio-environmental influences to reduce recidivism? Do they employ other alternatives to punishment-by-incarceration in settling cases of defendants without mental illness? What is the effect of MHCs and other diversion programs on PMI? Do they cause police to pick up more PMI rather than resolving problems on the street or leaving PMI alone?

Although there are multiple commonalities in socioeconomic characteristics and poor socio-environmental conditions for offenders with and without mental illness, those who do have a severe disorder differ in the dominant risk factors that lead to offending, arrest, detention, and incarceration. Drawing from theory and empirical research, we suggest that there are five patterns of risk factors that produce five different offender groups, each requiring different programs and management if their criminal recidivism is to be reduced and public safety protected (e.g., Hiday & Wales, 2011). The first group, the "Illness Only Group," is small in number, consisting of those with severe mental illness whose psychosis is directly causative in their offenses, which are often the more serious ones of aggravated assault, arson, rape, and homicide. Because hallucinations and delusions are primary in their offending behavior, their deviance is more likely to be controlled with mental health treatment than punishment; but punishment under the law is a criminal-responsibility question, the answer to which depends on their capacity for rational judgment, not on the causes of their behavior.

The second, much larger group, the "No-Place-To-Go Group," also consists of persons with severe mental illness whose psychosis is causative in their offending but only in combination with their "no-place-to-go and nothing-to-do" situation. Their offenses are minor and relatively harmless, mostly nuisance offenses such as loitering, disorderly conduct and disturbing the peace for making requests of shoppers, trying to talk with them in front of stores and fast-food restaurants, or talking to voices while loitering in malls. These behaviors would not be cause for arrest if they did not occur in public. The deviance of this group of offenders is, like that of the first group, more likely to be remediated effectively by treatment in the mental health system to reduce their symptoms. However, they also need services addressing their social and economic problems that leave them with no place to go and nothing to do.

The third and fourth groups consist of persons with severe mental illness whose offenses are caused only indirectly by their mental disorders that leave them with low levels of education and the inability to obtain employment providing enough income for basic necessities. They live marginally, often homeless, in disorganized, impoverished neighborhoods where they face crime and victimization. Their social situation leads the third group, the "Survival Group," to commit survival offenses such as shoplifting to obtain food and trespassing to obtain shelter; this social situation, in combination with poor judgment, commonly a secondary effect of severe mental illness, leads them to be easily misled by criminal associates into committing other offenses such as stealing and delivering drugs. As with the second group, mental health diversion coupled with social services to improve their functioning and meet their survival needs would be more effective than punishment in the criminal justice system.

The fourth group, the "Substance Abuse Group," like the third group, lives under these marginal conditions and commits survival offenses, but they have the additional problem of substance abuse that leads them to illegal drug use and disruptive and assaultive behaviors arising from intoxication, theft and prostitution to support their addictions, and violence associated with procuring drugs and drug money. All of these behaviors are criminal offenses arising out of their limited opportunities and their neighborhoods' negative influences; the acts are not directly caused by mental illness with the exception of substance misuse as a form of self-medication. Some members of this fourth group are frequent users of mental health crisis units, homeless shelters, hospital emergency departments, detox facilities, welfare agencies, and local jails, but their use of these services is only sporadic for short periods. To reduce their criminal recidivism, these persons need to be diverted to programs offering sustained treatment and services to change their addictive and mental health problems and to change their social and economic conditions.

The last group, the "Criminal Thinking Group," consists of persons who are psychopathic or have "criminal thinking" or antisocial tendencies, as do most prisoners without mental illness, and who only coincidentally have severe mental illness. Members of this group tend to be intimidating, threatening, and aggressive with high rates of substance abuse, violence, arrests, convictions, and incarcerations. Because their violent and criminal behaviors are driven by their character disorder and not by mental illness, their deviance is not likely to be controlled by treatment in the mental health system and provision of social services. Members of this group are not good candidates for diversion, given currently available treatment modalities. Furthermore, the legal system does not consider psychopathy or personality disorders to be mental illness for any purpose (e.g., criminal responsibility, civil commitment, receipt of government benefits), except in the case of civil commitment of sexually violent predators.

This delineation of these five types of offenders points to the need for policymakers and practitioners in both the mental health and criminal justice arenas to recognize that (1) not all offenders with severe mental illness are the same; (2) severe mental illness is not a sufficient condition to explain offending behavior by most persons with severe mental illness (even in the small group whose psychoses drive the crime, there is still the likelihood that micro- and/or macro-social factors explain why only some with psychotic delusions and hallucinations act on them; Hiday, 1995); and (3) mental illness is only indirectly causative of crime in the overwhelming majority of offenses by persons with severe mental illness. Indeed, mental illness has been ascribed excessive importance as a possible cause of criminal offending, especially violent offending. In focusing on deviance by persons with mental illness that leads to criminal offending, one needs to remember that much larger than all of these five categories of mentally ill offenders combined are persons with severe mental illness who do not fit into any of these five groups because, like most persons without mental illness, they do not criminally offend.

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Part VII
Social Continuities

Chapter 28
Life-Course Perspectives on Mental Health

Linda K. George

Abbreviations

APA	American Psychiatric Association
DSM	Diagnostic and Statistical Manual of Mental Disorders
ECA	Epidemiological Catchment Area Surveys
GI Bill	Government Issue officially titled Servicemen's Readjustment Act of 1944
GMM	Growth curve mixture models
HRS	Health and Retirement Survey
LCA	Latent class analysis
LGCA	Latent growth curve analysis
MDD	Major depressive disorder
NALS	The National American Life Survey
NCS	The National Comorbidity Survey
NCS-R	The National Comorbidity Survey Replication
NESARC	The National Epidemiologic Survey of Alcoholism and Related Conditions
NLAAS	The National Latino and Asian American Study
NLSY	The National Longitudinal Survey of Youth
PTSD	Post-traumatic stress disorder
WLS	The Wisconsin Longitudinal Study
WWII	World War II

In the first edition of this handbook, written nearly 15 years ago, I stated in the chapter introduction, "This chapter examines mental health and mental illness from a life-course perspective. Of necessity, discussion will focus more on *the potential* of life-course perspectives to inform us about the antecedents and consequences of mental health than about its demonstrated utility" (George, 1999, p. 565). I am happy to report that since then, the volume of research in which mental health or mental illness is examined in a life-course framework has grown exponentially. Certainly, there is much yet to be learned about the long-term dynamics and interrelationships among social risk factors, protective

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L.K. George (✉)
Department of Sociology, Center for the Study of Aging and Human Development,
Duke University, 2932 Welcome Drive, Durham, NC 27705-5556, USA
e-mail: lkg@geri.duke.edu

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social resources, and psychiatric disorders/psychological distress. Nonetheless, sufficient research now exists to document the importance of and contributions generated by cross-fertilization of life-course perspectives and the sociology of mental health.

That the sociology of mental health and life-course perspectives is complementary is (or should be) obvious. Episodes of mental illness emerge over time in response to both distal and proximal risk factors; have distinctive courses and outcomes, ranging from single episodes with full recovery to episodic and intermittent recurrences to chronic impairment; and trigger changes in multiple life domains that evolve over time. In short, mental health is dynamic rather than static, and life-course principles provide conceptual and methodological tools for understanding those dynamics. The purpose of this chapter is to review what we have learned about mental health in life-course perspective and to identify high priority issues for future research.

This chapter is organized in four sections. The first section reviews the core principles of life-course research and provides examples of how they are relevant to the study of mental health. Significant methodological advances in life-course analysis have emerged since the last edition of this *handbook*, and these developments are reviewed briefly in the second section. The third and "meatiest" section reviews four topics in the sociological study of mental health for which life-course analysis has already made important contributions. The final section provides my assessment of the highest priority issues for future research.

Life-Course Perspectives: Key Principles

There is no unified theory of the life course – nor, as I have argued elsewhere (e.g., George, 2007), should there be one. Life-course perspectives can best be used to expand and refine other theories. Nonetheless, life-course perspectives share four core principles, all of which can augment our understanding of mental health.

Long-Term Temporal Patterns

The first and most fundamental principle of life-course perspectives is the need to examine temporality over long periods of time. Life-course perspectives take a long view of biography, often covering decades or longer. Key assumptions of this principle are that lives unfold over time in long-term pathways or trajectories and that both the content and temporal patterns of trajectories are important. Early life-course research largely focused on demonstrating that events, environments, and experiences early in the life course played significant roles in a variety of outcomes (e.g., health, economic status) later in the life course. In his pioneering *Children of the Great Depression* (1974), Elder reported that a combination of economic status before the Depression and the amount of economic deprivation experienced by families during the Depression affected a large number of outcomes in the children of those families decades later, including mental health. As would be expected, children in economically disadvantaged families prior to the Depression and whose families experienced significant additional deprivation during the Depression had poor adult outcomes – i.e., low educational attainment, low status and low-paying jobs, and higher levels of psychological distress. The children who had the best health and socioeconomic outcomes in adulthood, however, were those whose families had adequate economic resources prior to the Depression but experienced substantial economic loss as a result of the Depression. Thus, given that the family entered the Depression with adequate income, the deprivation caused by the Depression spurred adult advantages – advantages that were greater than those of children from families who were economically secure both prior to and during the Depression. These findings suggest the truth of the adage that "adversity builds character" and remind us that the short- and long-term effects of stressors can be quite different.

As life-course research matured, interest expanded to multiple forms of temporal patterns – all of which involve long-term temporal dynamics but which address distinct research questions. One temporal pattern of interest in many studies is *timing and critical periods.* The general hypothesis underlying studies of *timing* is that specific events, experiences, and environments will have different effects, depending on the age at which they occur.

C*ritical periods* are closely related to timing. Most research on critical periods is performed by developmental psychologists who argue that if specific developmental tasks are not successfully completed at appropriate ages, subsequent development will be delayed or precluded. Although critical periods are generally linked to psychological development, social structures and processes also can generate critical periods. Elder's *Children of the Great Depression* also found evidence supporting the concept of critical periods (1974). Elder found that the children's ages at the time of the Depression greatly affected subsequent life-course patterns. He compared two cohorts of Depression era children: those born in 1920–1921 and those born in 1928–1929. The Depression was associated with much more negative adult outcomes for the older than the younger children. The older children entered adulthood at a time in which educational and occupational opportunities remained severely restricted and were also too old to fully benefit from the post-World War II (WWII) economic boom. In contrast, the younger cohort entered adulthood at a time of economic opportunity and benefitted greatly from the post-WWII economy.

Another frequently examined temporal pattern is *length of exposure* – i.e., the extent to which time in a given state affects outcomes of interest. Recent research assessing the effects of stress exposure on mental health outcomes provides an example. For decades, stress research focused on either exposure to recent life events or conditions that were assumed to be chronic (e.g., job stress, financial strain), without measuring length of exposure. More recently, however, measures of lifetime trauma (Turner & Lloyd, 1995) and cumulative adversity (Turner & Turner, 2005), which include both recent and long-term stress, have been shown to be more strongly related to mental health problems than measures of only recent stress. For example, several studies convincingly demonstrate that persistent poverty has much more negative effects on mental health than single or intermittent episodes of poverty (e.g., Mossakowski, 2008; Strohschein, 2005), indicating that length of exposure is an important characteristic of stressors. Although the potential importance of length of exposure seems obvious, we remain ignorant about how long exposure to most risk factors is required before mental health is compromised.

A fascinating temporal pattern is *duration dependence,* in which the effects of time change, depending on length of time in a specific state or environment. The likelihood of marrying (for the first time) exhibits a clear pattern of duration dependence in the USA. Between the ages of approximately 18 and 40, every year that one is unmarried increases the odds of marrying the following year. After the age of 40 or so, however, every year that one is unmarried decreases the odds of marrying the following year. Duration dependence also applies to the likelihood of recovering from an episode of major depressive disorder (MDD), even when the depressed person receives ongoing psychiatric treatment. For 1–2 years following the start of treatment, every month that one continues to meet the diagnostic criteria for MDD increases the odds of "recovery" (i.e., failure to meet the diagnostic criteria) the following month. After approximately 2 years, however, each month of continued MDD decreases the odds of recovering the following month (e.g., Angst, Kupfer, & Rosenbaum, 1996). Thus, simply the length of time spent in a specific state can strongly affect the odds of moving out of that state.

Another temporal pattern is *sequencing* – i.e., the extent to which the order of exposures to events affects outcomes of interest. Most research on sequencing assumes that there is a normative order for events and that violating that order has negative consequences. For example, sequencing of role transitions may affect mental health during the transition to adulthood. The normative sequence of role transitions in early adulthood is to complete one's education, obtain stable employment, marry, and have children. Nonnormative sequencing of these transitions would be expected to increase the risk of mental health problems. Jackson (2004) tested this hypothesis for whites and blacks. She found that following the normative order decreased the probability of mental health problems for whites but not blacks. Indeed, a specific "nonnormative" sequence provided the most protection against mental health problems for African Americans.

A final temporal pattern is *milestones or turning points* – i.e., the extent to which a specific event or transition changes the direction of a preexisting trajectory. The conditions under which the occurrence of mental illness is a turning point in personal biography are examined below.

The Intersection of Biography and History

Life-course perspectives attend to elements of context that are often ignored or underemphasized by other conceptual frameworks. One of these is historical context, and the second principle of life-course perspectives is that life-course patterns reflect the joint effects of history and biography. Elder's *Children of the Great Depression* (1974) focuses specifically on this intersection – i.e., how a historical event affected life-course patterns differently, depending on key personal characteristics (e.g., age, amount of economic deprivation). Historical context is not restricted to the impact of highly visible events like the Great Depression but also includes historical/cultural trends (e.g., increases in women's labor force participation) and changes in public policy (e.g., the deinstitutionalization of mental patients in the 1970s and 1980s). Studies that examine age, period, and cohort differences also focus attention on the effects of history on outcomes of interest. Studies that explicitly examine the effects of history on mental health provide a rare linkage of macrolevel and microlevel social phenomena. Not all life-course studies focus on historical context. Nonetheless, this principle is intended to remind all investigators that their data are historically embedded and that patterns observed will not necessarily generalize across historical time.

Linked Lives

A third principle of life-course perspectives is recognition that individual lives are interdependent and socially embedded. Social relationships are, of course, central to a large proportion of sociological research. Life-course research, however, typically takes a broader view of social relationships. Put simply, life-course perspectives contend that there is no outcome of interest (e.g., health, socioeconomic status [SES]) that is *not* affected by the social networks within which individuals are embedded. Combining the principles of long-term temporality and linked lives leads to the conclusion that both current and past social relationships are relevant to current mental health (and other outcomes). Life-course scholars also argue against investigations in which the social relationships examined are restricted to a specific domain of life experience. Thus, work peers undoubtedly affect family dynamics, and family relationships have "spillover" effects on work. For example, Glavin, Schieman, and Reid (2011) examined the extent to which responding to work demands outside of normal working hours led to guilt and psychological distress. Their results suggest that frequent work contact outside the normal workday increased guilt which, in turn, increased psychological distress for working women but not for working men.

The principle of linked lives is highly relevant to understanding mental illness, which, for example, affects not only the individual who experiences it but also that person's family and friends.

Another aspect of linked lives that is especially relevant to mental health is intergenerational transmission. Biologists would view this as a genetic issue, of course, but behavior patterns also can be socially transmitted. As an example of this, Boardman, Alexander, and Stallings (2011) report that, using data from a sample of adolescent twins, approximately half of the relationship between stressful life events and depressive symptoms is due to common genetic factors, with the other half due to social and personal factors. Moreover, the extent to which children can inherit psychiatric disorder from a mentally ill parent is only part of the intergenerational story. Even if children of parents who are mentally ill do not develop a mental illness, the family dysfunction that results from the parent's mental illness may affect children's socioeconomic achievements, social relationships, or physical health. For example, Augustine and Crosnoe (2010) examined the effects of mothers' depression on the academic trajectories of their grade school children. They found that maternal depression predicted lower academic achievement but only if the mother had less than a college education.

Human Agency

A final life-course principle is human agency and focuses attention on the long-term consequences of *individual decisions and actions* (as opposed to structural factors). Social science disciplines have long recognized the need to understand the relative roles of social determinism and human agency – and the formidable challenges in making such determinations. Life-course views of human agency contribute some subtle but important insights to this quest. For example, although life-course scholars are certainly aware of the distinction between social causation and social selection, they are not as concerned about separating the two as many other researchers. For life-course scholars, social causation and social selection are embedded in longer-term trajectories – and it is the shape of those trajectories that is most important. The quest to distinguish between social causation and social selection has led to some rather strange and, to my mind, dysfunctional language in the social sciences. Individuals no longer decide to marry; they are "selected into" marriage. Similarly, they are "selected into" jobs, parenthood, and other social roles. This language ignores the fact that individuals view themselves as deciding whether to marry, when to marry, and who to marry. Similarly, they believe that they make decisions about how much and what kind of education to obtain and what jobs to pursue. It is possible to acknowledge that acquisition of specific social roles is not random without implying that human agency is irrelevant in those transitions.

Methodological Advances

A major reason for the dramatic growth in mental health research in life-course perspective over the past 10–15 years is methodological advances both in the data available that permit studies spanning large proportions of the life course and in statistical techniques suited to analyzing those data.

Relevant Data Sources

Growth in the number of public use data sets that cover large portions of the life course over the past decade, and a half is impressive. Space limitations preclude an exhaustive listing of these data sets, but they include studies that begin during adolescence and follow participants to middle age, such as the Wisconsin Longitudinal Study (WLS) (Hauser & Willis, 2005) and the National Longitudinal

Survey of Youth (NLSY) (Chase-Lansdale, Mott, Brooks-Gunn, & Phillips, 1991). Other data sets, such as the Health and Retirement Study (HRS) (Hauser & Willis), follow participants from middle age through late life. Other relevant data sets are described below.

For purposes of studying mental health, these data sets are seldom perfect. In some, measures of mental health are sparse. Measures of the social risk and protective factors associated with mental illness also are generally limited. As is true in all longitudinal studies, survey items and scales that were cutting edge at baseline are no longer so decades later. Nonetheless, the field is much richer in relevant long-term data than was the case even a decade ago.

Statistical Modeling

A number of statistical modeling techniques suitable for longitudinal data analysis have been available for several decades. These include residualized change score analysis; hazard models (also known as survival analysis), which model "time till" an event such as the onset of or recovery from mental illness; and time series analysis of data with more than two times of measurement. These techniques are important analytic tools for many research questions for which multiple times of measurement are needed. These techniques also share an important characteristic: they are *between-person* forms of analysis. That is, the core of these analyses is a comparison of groups of people who differ on one more independent variables. For example, when testing the hypothesis that high levels of stress exposure are a risk factor for increases in distress, evidence takes some form of comparing individuals who have been exposed to low or no stress with those exposed to high levels of stress.

Over the past 15 years, trajectory analysis has become another and fundamentally different form of longitudinal analysis. Although the term "trajectory" has been used in a variety of ways, it is increasingly and appropriately being restricted to *within-person* or *intraindividual* analysis. The primary forms of within-person trajectory analysis techniques are growth curve analysis (GCA) and growth curve mixture modeling (GMM). In GCA, trajectories of the variable of interest are created for each sample member, and the average trajectory for the sample is generated. Thus, a GCA produces a trajectory that is aggregated across all sample members. In GMM, subgroups of distinct trajectories are identified. Thus, a GMM typically generates the set of trajectories that best describe the sample.

The trajectories generated by GCA and GMM can be used as dependent variables, independent variables, or both. With regard to the latter, for example, trajectories of stressful life events can be used to predict trajectories of depressive symptoms. In addition, between-person variables can be included in analysis (albeit, not in trajectory construction). Indeed, the most common trajectory analyses examine the effects of between-person variables on within-person patterns of stability and change. For example, race, age, gender, and SES can be used to predict trajectories of depressive symptoms. In this case, the trajectories of depression are within-person variables, and the predictors are between-person variables.

An important issue in trajectory analysis is that virtually all theories in the sociology of mental health have been tested using between-person analysis and could be better tested by using trajectory analysis. For example, stress process theory has rested for decades on analyses that compare individuals who differ on levels of stress exposure and social resources on a mental health outcome measured at a specific point in time. That is, the fundamental question tested has been whether individuals who report higher levels of stress also report higher levels of distress than individuals who report low levels of stress. In between-person analysis, investigators typically statistically control as many potential confounding variables as possible to support the inference that between-person differences in stress partially (or totally) explain between-person differences in distress. Using LGCA or GMM to generate within-person trajectories of stress and distress, the question answered is whether individuals who prospectively experience the onset of or increases in stress subsequently experience an increase in distress. Inclusion of control variables also is important in trajectory analysis although the within-person focus lessens the threat that confounding factors account for the findings. Thus, between-person analysis and trajectory analysis answer different questions.

Numerous decisions must be made in conducting trajectory analysis. As examples, the investigator must decide whether to base trajectories on time (i.e., dates of data collection) or age and whether to model trajectories in terms of transitions in an out of specific states or as increases and decreases in a continuous variable. Space limitations preclude consideration of these issues here, but see George (2009) for a detailed discussion of conceptualizing and measuring trajectories.

Mental Health in Life-Course Perspective: The Evidence

A relatively large body of research now integrates life-course perspectives with the sociology of mental health. The common characteristic of this research is a focus on long-term patterns of stability and change in the outcome of interest, antecedents of the outcome, or both. In this section, four topics central to the cross-fertilization of the sociology of mental health and life-course principles are reviewed.

Mental Health Across the Life Course

Arguably, the quintessential question when merging the sociology of mental health with life-course principles is whether there are distinctive patterns of mental health across the life course. Are there one or more discernable trajectories of mental health across age? Or, are mental health problems distributed randomly across age? Confident conclusions about this issue would require longitudinal data spanning the life course – i.e., from childhood through late life. Moreover, because cohort differences in the dynamics of mental health are likely, one would need data across the life course for multiple cohorts. Unfortunately, such data are not available for representative samples. By triangulating findings from multiple studies with more limited data, however, we can begin to observe the extent to which mental illness varies across the life course.

Long-Term Longitudinal Studies

Two studies that began in the 1920s and 1940s respectively collected data from sample members from childhood or late adolescence to old age. Unfortunately, both samples are far from representative. The Terman Study began in 1921–1922, recruiting boys and girls with high IQ scores who were age 2–19 at baseline. Data were collected at 13 irregular intervals, with the last round of data collected in 1991–1992 (Elder, Shanahan, & Clipp, 1994). The Grant Study recruited a group of freshman men from Harvard University in 1940–1941. Data were collected annually through 1946 and biennially every 2 years for 50 years (Cui & Vaillant, 1996). In both studies, all sample members were white. Findings from these two studies must be viewed as suggestive because of the highly select samples.

Elder, Clipp, and colleagues examined the effects of WWII military service on both short- and long-term health and achievements among Terman Study men (Clipp, Pavalko, & Elder, 1992; Elder et al., 1994). They identified six trajectories of mental health over the course of adulthood: stable high mental health; stable low mental health; decreasing mental health over time; increasing mental health over time; decreasing mental health, followed by increasing mental health; and widely fluctuating patterns. The modal trajectory was stable high mental health, followed by increasing mental health.

Using Grant Study data, Cui and Vaillant (1996) report that a large majority of study participants reported high levels of mental health throughout the course of the study. Only two trajectories differed from this modal pattern. First, a minority of men reported a pattern of increasing alcohol use that culminated in full-blown alcoholism by middle age. Second, study participants who experienced combat duty in WWII reported higher numbers of post-traumatic stress disorder (PTSD) symptoms from young adulthood through late life. Both of these studies have limitations because of the select nature of their samples. Nonetheless, these studies suggest that stable mental health is the norm, although less common patterns indicating mental health problems also exist.

Age Differences in Psychiatric Diagnoses and Symptoms

Age differences in psychiatric diagnoses and symptoms are ambiguous because they confound the effects of age and cohort (see Chap. 10). Nonetheless, they are an excellent source of hypotheses about the dynamics of mental illness. Several recent sources of data permit age-specific estimates of the prevalence of psychiatric disorders across wide age ranges. Two databases are nationally representative: the National Comorbidity Survey Replication (NCS-R) (Kessler, Chiu, Demler, Merikangas, & Walters, 2005) and the National Epidemiologic Study of Alcohol and Related Conditions (NESARC) (Hasin, Goodwin, Stinson, & Grant, 2005). Two other studies provide information about racial/ethnic minorities in the USA: the National Survey of American Life (NALS), which includes data from a nationally representative sample of African Americans and black Caribbeans (Williams et al., 2007), and the National Latino and Asian American Study (NLAAS) (Alegría et al., 2007).

Results from all these data sources are relatively consistent: Axis I disorders, based on the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association (APA) (e.g., DSM-IV; APA, 2000), peak in early adulthood, decrease gradually across middle age, and are lowest in late life. This holds true for major depressive disorder (MDD) even though rates of physical illness and disability increase across age groups, which would be expected to increase rates of MDD (Kessler et al., 2005; Kessler et al., 2010).

Age differences in psychiatric symptoms are less clear. Three studies examined age differences in depressive symptoms in considerable detail. All the studies were based on data from representative community samples and were cross-sectional. Mirowsky and Ross (1992) report a U-shaped distribution of depressive symptoms: middle-aged adults report the fewest symptoms; both young and older adults report higher levels of symptoms on average. In the other two studies, depressive symptoms had the same distribution as psychiatric diagnoses – i.e., average levels of symptoms declined across age groups (Blazer, Hughes, & George, 1987; Schieman, van Gundy, & Taylor, 2002).

In a related study, Yang (2007) examined cohort differences in trajectories of depressive symptoms. The sample consisted of 3,000+ adults age 65 and older at baseline, who were followed for 10 years. Average levels of depressive symptoms declined across age groups. In addition, depressive symptoms declined more rapidly across age for older than for younger cohorts.

Based on the studies available, several hypotheses about the dynamics of mental health across the life course can be offered. First, it appears that the vast majority of individuals report stable and high levels of mental health over decades. Second, the prevalence of psychiatric disorder declines across age groups – and psychiatric symptoms probably do as well. It is not clear that the differences observed across age groups apply to individual trajectories as well, although findings from longitudinal studies over a decade or more are compatible with this pattern (Wickrama, Conger, Lorenz, & Jung, 2008; Xu, Liang, Bennett, Quiñones, & Ye, 2010).

The Persisting Effects of Early Traumas and Adversities

The strongest evidence that life-course research contributes to our understanding of mental health is found in studies of the long-term effects of traumas and adversities on mental health. These studies convincingly demonstrate that early stressors continue to have direct effects on mental health 50–60 years later. Much of this research also identifies psychosocial resources that can reduce, though not totally ameliorate, the damaging effects of early adversity. In this section, research on two kinds of early trauma or adversity is examined: childhood traumas and combat exposure.

The Long Arm of Childhood Trauma and Adversity

Several childhood traumas have been consistently linked to increased risk of mental health problems in adulthood, including late life. Childhood traumas are typically defined as occurring at or before age 11. One exception to this is childhood sexual assault, which is typically defined as occurring before age 17. In most studies, information about childhood traumas is collected retrospectively, which raises the possibility that mentally ill persons will "remember" childhood experiences differently from those without mental health problems. The evidence linking childhood adversity to adult mental health is so plentiful and consistent, however, that investigators are generally quite confident that the relationships are "real" and not measurement artifacts. As Avison (2010) notes, childhood conditions and experiences establish the "set points" upon which life-course patterns of mental illness rest.

Several specific childhood traumas are consistently associated with increased risk of psychiatric disorders or symptoms in adulthood. One of these is parental divorce which is related to a range of mental health conditions (e.g., MDD, substance abuse, Benjet, Borges, & Medina-Mora, 2010; depressive symptoms, Harris, Brown, & Bifulco, 1990; depressive symptoms, McLeod, 1991; depressive symptoms, Ross & Mirowsky, 1999; generalized anxiety disorder, Tweed, Schoenbach, George, & Blazer, 1989). Physical abuse also is a strong risk factor for mental health problems during adulthood (e.g., MDD, substance abuse, Benjet et al., 2010; recurrent MDD, Kessler & Magee, 1994; MDD, Kraaij & de Wilde, 2001; depressive symptoms, Shaw & Krause, 2002). Childhood sexual assault also is a potent predictor of depression and PTSD, both immediately after the assault and throughout adulthood (e.g., depressive symptoms, Roberts, O'Connor, Dunn, Golding, & The ALSPAC Study Team, 2004; MDD, generalized anxiety disorder, PTSD, Winfield, George, Swartz, & Blazer, 1990; MDD, generalized anxiety disorder, Yama, Tovey, & Fogas, 1993). Even witnessing physical violence as a child predicts adult mental health problems (MDD, Roustit et al., 2009; recurrent MDD, Kessler & Magee, 1994).

Other investigators have examined the effects of the *number of childhood adversities* on adult mental health. Childhood traumas appear to operate additively such that higher numbers of adversities increase the risk of psychiatric problems in adulthood (Green et al., 2010; Kasen, Chen, Sneed, & Cohen, 2010; Wiersma et al., 2009). Using NCS-R data, Green and colleagues report that childhood traumas are associated with 44% of childhood mental illness and with 25–43% of adult psychiatric disorders, depending on the specific diagnosis examined (Green et al.). Other analyses of NCS-R data suggest that the higher the number of childhood adversities reported, the greater the impairment associated with adult psychiatric disorders (McLaughlin, Green, et al., 2010).

Multiple investigators report that adult psychosocial resources – especially high SES, being married, and high levels of social support – partially mediate the effects of childhood traumas on adult mental health (e.g., Harris et al., 1990; Kasen et al., 2010; McLeod, 1991; O'Connor, Thorpe, Dunn, & Golding, 1999; Shaw & Krause, 2002). Only one study, however, finds the effects of a childhood trauma (i.e., parental divorce) to be totally explained by psychosocial mediators (Ross & Mirowsky, 1999). Thus, life-course principles identify early risk factors for mental health problems but also demonstrate how the accumulation of psychosocial resources can lessen that risk.

The direct and indirect effects of childhood traumas were reviewed above. Another pathway by which childhood adversities affect adult mental health is through their interaction with adult stress. That is, childhood adversities increase vulnerability to recent and current stress during adulthood (e.g., Kraaij & de Wilde, 2001; Landerman, George, & Blazer, 1991; McLaughlin, Conron, Koenen, & Gilman, 2010). This has been referred to as a pattern of "stress sensitization" in which the imprint of early traumas creates a lifelong sensitivity to later stressors, exacerbating their negative effects. For example, McLaughlin, Conron, and colleagues 2010, using NESARC data from nearly 35,000 adults, found that childhood adversities interacted with recent stressful life events to increase the risk of MDD, PTSD, and other anxiety disorders. The vulnerability created by childhood traumas was especially strong for those who experienced three or more adversities, and although the interaction of childhood traumas and recent stress was significant for both sexes, it was stronger for women.

Childhood poverty and/or low SES also affect mental health in adulthood. Economic disadvantage in childhood increases the risk of both depressive symptoms and MDD in adulthood (e.g., Gilman, Kawachi, Fitzmaurice, & Buka, 2002; Luo & Waite, 2005). The effects of low childhood SES are only partially mediated by adult SES (Luo & Waite, 2005; Power et al., 2007) and remain significant predictors of depressive symptoms as much as 50 years later (Szanton, Thorpe, & Whitfield, 2010). Nonetheless, upward social mobility during adulthood can compensate for a significant part of the negative effects of childhood poverty (e.g., Luo & Waite). Over and above the socioeconomic status of one's family of origin, residential instability and living in unstable, poor, and disorganized neighborhoods during childhood increase the odds of mental health problems in adulthood (Gilman, Kawachi, Fitzmaurice, & Buka, 2003; Wheaton & Clarke, 2003).

Thus, the hypothesis that childhood traumas and adversities increase the risk of mental health problems in adulthood receives strong support for both a variety of childhood stressors and multiple mental health outcomes. Equally important, the contexts of early adversities can alter vulnerability that might otherwise occur. A recent study illustrates this pattern especially well. Rusby and Tasker (2009) studied 870 British adults, age 62–72, and examined the long-term effects of separation from parents. During WWII, a large proportion of children living in London were relocated to foster homes in more rural parts of England while their parents remained in London. Periods of separation ranged from months to several years. Rusby and Tasker determined whether the stress associated with relocation from parents had discernable effects on depressive and anxiety symptoms 50 years later. That research question is particularly interesting because the comparison involved was not simply that between stressed and nonstressed groups. Remaining in London and experiencing frequent bombings and living in a state of siege were also stressful. The important question was whether relocation to foster care was more stressful than living with one's parents in a war zone. The answer was not a simple one. Individuals who were evacuated between the ages of four and six and those who received poor quality foster care after evacuation reported significantly higher levels of depressive and anxiety symptoms than both other evacuees and the nonevacuated – evidence supporting the role of childhood trauma on adult mental health. In contrast, however, those evacuated between the ages of 13 and 15 and those who received high-quality foster care reported lower levels of depressive and anxiety symptoms than both other evacuees and those who had not been evacuated. Thus, the conditions under which stressors occur are as important as the stressor per se in mental health decades later.

Adult Traumas

Traumatic stressors can occur at any point in the life course. Traumas experienced in adulthood have been demonstrated to increase the risk of mental health problems in both the short and long run. Because of space limitations, I use the long-term effects of combat exposure on mental health to illustrate the ways in which traumatic experiences remain potent predictors of mental health problems decades later.

Evidence strongly supports the hypothesis that combat exposure during war is a risk factor for mental health problems both immediately and much later in the life course. This evidence is based on the veterans of three wars – WWII, the Korean War, and the Vietnam War. The mental health outcomes associated with combat exposure include PTSD symptoms and disorder, depressive symptoms and MDD, anxiety symptoms, and substance abuse problems and disorder (e.g., Cui & Vaillant, 1996; Elder et al., 1994; Kulka et al., 1990; Lee, Vaillant, Torrey, & Elder, 1995). In most studies, combat veterans are compared to veterans not exposed to combat and to civilians. In the above studies, combat veterans exhibited significantly increased risk of mental health problems than both comparison groups. It is too early to discern the very long-term effects of combat exposure during both Gulf Wars, but early research on veterans of the 1994 Gulf War suggests a similar pattern (Toomey et al., 2007).

Research also identified the conditions under which combat exposure is especially likely to result in physical and mental health problems over the life course. Both premilitary and postmilitary factors are important. Men who experienced mental health problems prior to entering the military were at especially high risk of psychiatric disorders and symptoms after leaving the military (Elder et al., 1994; Lee et al., 1995). They also were more likely to be assigned to combat duty than men without a history of psychiatric problems. Men who experienced combat exposure also had less education, on average, than noncombat veterans. Thus, men with the fewest resources for handling the stress of combat were the most likely to be exposed to combat. After discharge, veterans who sought advanced education, who had higher-status jobs, and who married (either before or soon after leaving the military) were less likely to experience psychiatric disorder or symptoms in both the short and long term (Elder et al., 1994; Kulka et al., 1990).

Military experience also can have positive effects on life-course outcomes. The GI Bill (originally titled the Servicemen's Readjustment Act of 1944) provided educational benefits to thousands of men, many of whom could not have pursued postsecondary education without its financial support (Elder et al., 1994). Military service also has been shown to help men interrupt and forgo long-term patterns of delinquency and crime (Sampson & Laub, 1990). Thus, it appears that combat exposure per se – not military service – is the risk factor for mental health problems.

Mental Illness as a Life-Course Milestone

Some life events or transitions are sufficiently consequential to literally change the life course in dramatic and permanent (or at least long-term) ways, creating a turning point. Substantial evidence indicates that mental illness early in the life course has significant consequences for adult achievements and adult mental health. Mental illness later in life, however, has less severe effects on major life-course pathways and outcomes. For our purposes, early mental illness has an onset at age 25 or younger. Note that it is difficult to measure specific DSM-IV mental disorders in young children. Thus, measures of childhood mental illness focus on behavioral problems.

The Consequences of Early Mental Illness for Adult Achievements

Early mental illness (i.e., in childhood and/or adolescence) has profound negative effects on educational attainment, decreasing the probability of completing high school, entering college, and finishing college (e.g., Breslau, Lane, Sampson, & Kessler, 2008; McLeod & Fettes, 2007; Needham, 2009). Early psychological problems also are associated with lower occupational status and income (Chen & Kaplan, 2003; Wiesner, Vondracek, Capaldi, & Porfeli, 2003). Family formation also is affected by early mental illness – i.e., decreased odds of marriage for persons with psychotic disorders (e.g., Walkup & Gallagher, 1999), earlier age of marriage for persons with affective and substance use disorders (e.g., Forthofer, Kessler, Story, & Gottlib, 1996), earlier parenthood (e.g., Woodward & Fergusson, 2001), and higher odds of divorce (e.g., Wade & Pevalin, 2004).

The studies cited above are based on both cross-sectional data, in which adolescents or young adults with and without histories of mental illness are compared, and longitudinal research, in which children or adolescents are followed over time to young adulthood. These studies provide valuable information about the effects of early mental illness on young adult outcomes. They do not, however, compare the effects of mental illness experienced early versus later in the life course. Turnbull and colleagues compared individuals who experienced early (age 25 and younger) and later (age 26 and older) onset of psychiatric disorders. Socioeconomic status and family characteristics of those with later onset of mental illness did not significantly differ from those of persons with no history of mental illness. Those with early onset of mental illness reported significantly lower SES and poorer family outcomes than their age peers with no history of mental illness (Turnbull, George, Landerman, Swartz, & Blazer, 1990). These results suggest that early onset of mental illness is a consequential milestone or turning point in the life course, whereas later onset is not, at least with regard to the outcomes studied.

The Consequences of Early Mental Illness on Adult Mental Health

As might be expected, early mental illness is a potent predictor of recurrent mental illness in adulthood. Research evidence indicates that this is true for anxiety disorders (Woodward & Fergusson, 2001), MDD and alcohol abuse/dependence (Vaillant & Vaillant, 1990), and a broad spectrum of Axis I DSM-IV disorders (Kim-Cohen et al., 2003). Research also suggests that delinquency during childhood and adolescence is a risk factor for multiple DSM-IV disorders in adulthood – regardless of whether the delinquent behavior meets the criteria for conduct disorder (e.g., Hagan & Foster, 2003; Kuh, Hardy, Rodgers, & Wadsworth, 2002). Thus, childhood behavioral problems appear to be a generalized risk factor for adult mental illness.

Even serious childhood behavior problems, however, do not inevitably lead to mental illness during adulthood. Sampson and Laub (1990) and Long and Vaillant (1984) examined longitudinal data that followed male children from childhood through age 70 and 47, respectively. Both studies were based on high-risk samples in which high rates of delinquency and perhaps adult mental illness would be expected. Nonetheless, in both studies, the majority of men with histories of delinquency and socioeconomic deprivation were productive and mentally healthy adults. These findings reinforce the assumption of life-course research that specific events or conditions trigger multiple pathways. The task of the life-course researcher is to identify those pathways and reveal the social factors that distinguish among those who exhibit different pathways.

Other Vicissitudes of Life

Fortunately, most people do not experience childhood trauma, are not exposed to combat, and do not experience other traumatic stressors (e.g., sexual assault, a life-threatening natural disaster). It would be misleading, however, to imply that it is only sudden (or at least time-limited) events that predict mental health problems. Chronic stressors, such as long-term financial strain, job stress, or marital conflict, also place individuals at risk for psychiatric disorders or symptoms. Similarly, more prevalent but nonetheless severe losses, such as widowhood or death of a child, also are associated with at least short-term mental distress and sometimes mental illness as well. Space limitations preclude a comprehensive examination of the more "garden-variety" vicissitudes of life and their effects on mental health. Instead, I will use marital dissolution and marital history more broadly to illustrate the threats posed to mental health by less dramatic and more prevalent stressors.

Marital dissolution takes two forms: separation/divorce and widowhood. Both types of dissolution have been known for decades to generally trigger substantial psychological distress in the short run, with the general assumption that levels of psychological well-being usually revert to predissolution levels. Investigators bringing a life-course perspective to the study of marital dissolution have demonstrated that the effects of these marital transitions can be better understood by examining them in the context of the longer trajectories in which they are embedded.

Marital history is important because current marital status ignores important sources of heterogeneity among persons in the same marital state, and even short-term longitudinal studies (e.g., a decade or less) typically ignore parts of the marital history that occurred prior to the baseline interview. Two recent studies demonstrate the importance of examining individuals' entire marital histories. Both studies find that marital dissolution has long-term effects on depressive symptoms. Specifically, if the currently married are disaggregated into those in first marriages versus those in higher-order marriages, the remarried (following either divorce or widowhood) consistently report more depressive symptoms than those in first marriages, controlling on a host of other factors (Hughes & Waite, 2009; LaPierre, 2009). Thus, although the peak in depressive symptoms is experienced at the time of and immediately after marital dissolution and then decreases, even at longer distances from the dissolution and even if one has remarried during that time, depressive symptoms remain elevated, compared to predissolution levels. Depressive symptoms are even higher, relative to predissolution, among the widowed and divorced who do not remarry (Hughes & Waite, 2009; Turner, Killian, & Cain, 2004 – Hughes and Waite examined both widowhood and divorce; Turner et al. only studied the effects of divorce). Thus, marital dissolution affects mental health in both the short and the long run.

Studies of bereavement among caregivers also illustrate the importance of examining transitions in the context of longer trajectories. Two studies are especially instructive in this regard. Both examined family caregivers of sick or impaired older adults; caregivers were either spouses or adult children of the care recipient. The timing of both longitudinal studies (one spanning 4 years and the other spanning 5 years) encompassed measurement of depressive symptoms both before and after death of the care recipient. Li (2005) used latent growth curve analysis to identify the modal trajectory in her sample, which took the form of increasing depressive symptoms over time until the care recipient's death, after which symptoms gradually decreased over time. The rate of decline after bereavement, however, was related to characteristics of the caregiving situation. Caregivers who reported higher numbers of behavior problems exhibited by the care recipient, higher levels of overload, and who had low incomes exhibited more rapidly declining numbers of depressive symptoms after bereavement. Using latent class analysis, Aneshensel, Botticello, and Yamamoto-Mitani (2004) identified four trajectories of depressive symptoms in their sample of caregivers. Three of the trajectories depicted stability in symptoms over time; the fourth trajectory (about 20% of the sample) was characterized by decreasing depressive symptoms over time. There was evidence of increasing depression at the time of bereavement for some caregivers but not enough exhibited this pattern to comprise a distinct trajectory. Overall, there was little or no change in depression as a result of bereavement, and the primary change observed was one of improvement in depressive symptoms.

Another way that "garden-variety" stressors can spawn long-term consequences for mental health is through the process of stress proliferation. Stress proliferation occurs when a primary stress or triggers one or more secondary stressors – i.e., the secondary stressors would not have occurred in the absence of the primary stressor (Pearlin, Aneshensel, & LeBlanc, 1997; Pearlin, Schieman, Fazio, & Meersman, 2005). Both marital dissolution and caregiving are stressors that increase the risk of stress proliferation. Divorcees often must adjust not only to the loss of their marriages but also to a host of other stressful changes including economic strain, altered child-rearing demands, residential relocation, and loss of social network members (Pearlin et al., 2005). Taking on caregiving responsibilities for a sick or impaired family member or friend often leads to other stressors, including lost income (if the caregiver must reduce work hours or quit working) and social isolation – in addition to the physical and psychological demands of providing assistance to the care recipient (Pearlin et al., 1997).

As these studies demonstrate, it is important to anchor transitions into longer-term trajectories. Marital dissolution is a stressor whose effects usually do not disappear over the long run, even if the individual remarries. Given the often burdensome nature of caregiving, however, loss of the care recipient can reduce distress.

Final Thoughts: Looking to the Future

I hope that this chapter has both demonstrated the conceptual relevance of life-course perspectives for the sociological study of mental illness and provided empirical illustrations of what can be learned from the cross-fertilization of the sociology of mental health with life-course perspectives. Great progress has been made in the last two decades, and the messages from that research are both discouraging and encouraging with regard to the prevention of and recovery from psychiatric disorders and symptoms. On the less positive side, we can now state with confidence that traumas and adversities can increase vulnerability to mental illness over the long term, and generally, the imprint of early traumatic stress continues to operate throughout adulthood. On the positive side, we also know that, although early events and traumas cannot be totally ameliorated, given psychosocial resources – especially adequate financial resources and high-quality social bonds – individuals can weather later stressors and live productive, healthy lives.

Although the stress-ameliorating and stress-buffering effects of psychosocial resources have been well documented, questions about their temporality remain largely unasked and unanswered. Accurate estimates of *how much* and *when* psychosocial resources can avert mental illness or lessen psychological distress are lacking. Are there "critical periods" in the aftermath of trauma in which resources must be forthcoming to avert mental health problems? How long must psychosocial resources be in place before they begin to protect individuals against stressors? Can high levels of one resource (e.g., financial security) compensate for the loss of another resource (e.g., death of a spouse or confidant)? These and similar questions are high priority issues for future research.

Those questions can best be answered using sophisticated analytic techniques that identify the multiple trajectories that describe the dynamics of resource accumulation and loss over time – and linking those trajectories to trajectories of movement in and out of psychiatric disorders or of increasing and decreasing psychiatric symptoms. I am convinced that neither traditional between-person analyses (e.g., OLS and logistic regression) nor techniques that model a single trajectory for a sample (i.e., growth curve analysis) will answer those questions in the detail and depth needed. Instead, growth curve mixture modeling (GMM) holds the most promise because it identifies the multiple trajectories that do justice to the complexity of lives over time. Once the dynamic patterns that underlie the accumulation and loss of resources and the growth and dissipation of mental illness are identified, between-person analyses can be used to identify the antecedents and consequences of intraindividual change.

Mental health is a moving target across the life course. It is always at risk as traumas and stressors take their toll on our bodies and minds. At the same time, protective factors, especially psychosocial resources, help us to weather those storms to the extent that most of us avoid mental illness most or all of our lives. Childhood and adolescence/early adulthood are critical periods in forging the foundations of mental health. Traumas experienced at those ages obviously are painful at the time, but they also create psychological and social vulnerabilities that increase risk of mental illness for the rest of our lives. Compensatory mechanisms, however, such as social support and socioeconomic achievement, can erase much of that vulnerability. Life-course research to date suggests that efforts should be made both to prevent the onset of mental illness and to nurture the kinds of psychosocial resources that reduce vulnerability.

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Chapter 29
Mental Illness as a Career: Sociological Perspectives

Carol S. Aneshensel

The topics encompassed within this handbook reveal the sociology of mental health to be multifaceted: juxtaposing etiological theories with those that contest the very existence of mental disorder, differentiating causal explanations of illness episodes from interpretations of societal reactions, and contrasting the objective criteria of diagnosis with the subjective experience of human misery—despair, confusion, compulsion, and fear. The subjects of investigation are diverse as well: individuals beset by feelings, thoughts, or behaviors they cannot escape or control; social groups whose risk of impairment is unusually great; cultural groups differing in the expression of distress and social reactions it evokes; institutions whose business is counting, classifying, treating, and paying for mental illness; and the historically specific and local understandings we as sociologists have of these phenomena.

In the previous chapter, Linda George employed the principles of life course to unify several of these diverse themes. In this chapter, I use a similar but distinct concept, that of career, to achieve the same end. Whereas the life-course perspective addresses connections among the diverse trajectories comprising a person's life, such as family and work, the career perspective extracts one of these trajectories and accentuates its internal organization. In this instance, the trajectory of interest forms around the experience of unusual, unpleasant, unwanted, or unacceptable thoughts, feelings, and behaviors. I use the concept of career to fuse the social conditions that create such a state, mold the course it follows over time, shape its impact on the individual, and trigger consequences for those whose lives are interconnected. In many ways, this conceptual model reflects the organization of this handbook.

The Concept of Career

Work and Beyond

The concept of career has a long history in sociology. Its dominant application, of course, is with regard to the occupational sphere, especially work performed within formal organizations over the course of one's entire work life. Career is more than work or a job; however, it is a sequence of related

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C.S. Aneshensel (✉)
Department of Community Health Sciences, Fielding School of Public Health, University of California,
Los Angeles, 650 Young Drive South, Los Angeles, CA 90095-1772, USA
e-mail: anshnsl@ucla.edu

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positions typically arranged in a hierarchy of respect, responsibility, and reward (Wilensky, 1961). People move through these jobs in an ordered sequence, following a developmental trajectory of progressive accomplishment, expertise, control, complexity, and esteem.

In addition to this conventional usage, the concept of career has a rich tradition of application to occupations outside the institutional mainstream, dating from the 1930s Chicago sociology (Barley, 1989). For example, career was used to study marginal or unconventional jobs such as taxi dancer (Cressey, 1932), professional thief (Sutherland, 1937), and criminals (Glueck & Glueck, 1968 cited in Sampson & Laub, 1993). Later work in this vein has examined criminal occupations such as prestige rankings of loan sharks, counterfeiters, drug dealers, and so forth (Matsueda, Gartner, Piliavin, & Polakowski, 1992) and misconduct among lawyers (Arnold & Hagan, 1992).

Careers also emerge in other settings as a sequence of informal social statuses. For example, the concept has been applied to participation in deviant subcultures, such as marijuana users (Becker, 1953; see also Hser, Longshore, & Anglin, 2007 for a recent treatment of drug use careers from a life-course perspective). For our purposes, the most important work in this tradition concerns the course of chronic illness (Gerhardt, 1990), help-seeking behavior (Pescosolido, 1992; see Chap. 24), and caregiving for the chronically ill, such as family members with Alzheimer's disease (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995; Pavalko & Woodbury, 2000). For example, Sim and Madden (2008) recently applied the concept of illness career to fibromyalgia, a diagnosis of exclusion whose legitimacy is contested due to the intangible, ambiguous, and invisible nature of the pain. Based on a metasynthesis of existing qualitative studies, they identify several distinct career stages, beginning with the pre-diagnosis stage, when individuals seek to have their symptoms explained by physicians, often to be told nothing is wrong; through receiving a diagnosis, which generally evokes relief because the illness is not as serious or life threatening as previously feared and because the illness has been validated, although some reject the diagnosis as failing to reflect their own experience; and to the post-diagnosis stage, which involves the search for an effective treatment and cure and for meaning. As we shall see, this description shares many features with aspects of a mental illness career.

In general, then, career refers to any sphere of activity in which people move through a sequence of related and definable stages in a progressive fashion, moving in a definite direction or toward a recognizable end point or goal. This developmental quality is captured in the description of career as "the unfolding of a social role" (Arthur, Hall, & Lawrence, 1989). Young and Collin (2000) add that career addresses the intersection of individual biography and social structures. They note that the concept of career encompasses more than objective pathways and transitions, including prominently self-identity.

Although analogous, the qualities of a mental illness career are diametrical to those of many other careers, especially those in the occupational sphere. The pathways followed by persons with mental illness are characterized not by a hierarchy of socially desirable accomplishment but rather by states and transitions that typically are unwanted, uncontrollable, and undesirable. In contrast to the enhanced self-esteem that results from occupational achievement, the identity transformations that accompany the onset and course of mental illness often entail an evolving understanding that something is wrong with oneself, the incorporation of the role of patient into one's identify and self-stigma. Conventional occupations possess a goal-oriented quality, where dead-end jobs are avoided precisely because there is no rung leading to the top of the ladder. For mental illness, recovery accompanied by the resumption of ordinary activities and responsibilities seems like the obvious parallel; indeed, it is an essential feature of Parsons' (1951) original formulation of the sick role. However, the chronic and recurrent course of many psychiatric disorders—such as depression and schizophrenia—may make recovery, at least full and permanent recovery, an elusive goal for many persons. In this regard, Rosenfield (1992) cites enhanced quality of life as a critical goal of treatment for persons with chronic mental illnesses for whom medicine's power to cure is equivocal.

Mental Illness as a Career

The application of the concept of career to mental health originates with Goffman's (1959) foundational conceptualization of the "moral career" of mental patients, which delineates the systematic changes in how a person views himself or herself during the passage from person to patient. His natural history approach to career highlights the changes over time that are shared in common among members of a social category, in this instance hospitalized mental patients, as distinct from the unique outcomes for any one individual. In Goffman's application of the concept to persons thought to have mental illness, career encompasses three stages: pre-patient, inpatient, and ex-patient. By "moral" aspects of the career, he means a regular series of changes to how the person views the self and his or her framework for viewing the self and others. Key elements of Goffman's approach resonate within contemporary work on mental illness careers, including the idea of a sequence of stages, the emphasis on the interface between the person who is thought to have mental illness and the institutions whose business is mental illness, and a focus on the evolving self-concept as a person with mental illness.

Scheff's (1963) seminal labeling theory also contributed substantially to the formation of the mental illness career concept by treating mental illness as a social role as distinct from the medical "metaphor" of a disease that occurs within the individual. He asserts that "residual rule-breaking"—violations of social norms for which there are no labels because consensus is so great that they are taken for granted as part of the assumptive world, such as basic linguistic norms and those used in the social construction of reality—is extremely pervasive in society, but generally is ignored or rationalized away and usually is resolved by a return to normality or by a redefinition of the problematic behavior in terms other than mental illness, such as eccentricity. However, he claims that societal reactions to persons treated for mental illness reinforce behavior that conforms to stereotypes of mental illness and creates a stable pattern of symptomatic behavior. According to Scheff, labeling is the single most important cause of stable careers as chronically mentally ill persons, an extreme perspective that is not without critics (see Gove, 2004).

Karp (1996) provides a contemporary exemplar for the application of the concept of career to mental illness. He describes the subjective experience of the depressed person, emphasizing how people impose meanings onto their experience as it evolves over time: It is a long pilgrimage to figure out what is wrong, what to name it, what to do about it, and, ultimately, how to live with it (see Chap. 2). Karp describes this progression as a social process that entails an increasing commitment to a medical model of depression and the transformation of self to include the role of patient. He delineates a career that starts with inchoate feelings of distress followed by the person's recognition that something is wrong; passes through the identification of this condition as a psychiatric illness that necessitates treatment, usually involving psychotherapy and medications; and ends with the person's accommodation to chronic disability. This scenario describes the experiences shared in common by many depressed persons.

However, a number of alternative career paths exist. Many people develop symptoms of psychological disorder in some shape or form, but only some become psychiatric patients beset by recurrent episodes of impairment. For example, (Biddle, Donovan, Sharp, & Gunnell, 2007) take exception to stage models that depict illness behavior, including help seeking for psychological distress, as a linear, sequential process. They find that not all episodes of psychological distress among young adults involve progression toward crisis; instead, many symptoms are self-remitting and relatively unproblematic. In such cases, the cycle of avoidance they observed may be appropriate and reasonable; for others, however, they conclude that the threshold for help seeking is continually shifting as symptoms become more severe, rendering the nonuse of mental health services problematic and potentially dangerous. Likewise, Gove (2004) points out that the career of the mentally ill must be understood as a process that unfolds in unpredictable ways and that the nature of a particular outcome can be known only in retrospect.

The approach to career used in this chapter emphasizes the existence of alternative career paths, especially the social determinants of movement from one career stage to another: Why do some progress to chronic impairment, whereas others never come to see their affliction as mental illness, or if they do adopt this interpretation, do not seek treatment? This orientation is isomorphic to the life-course themes of transitions and trajectories described earlier by George (see Chap. 28).

The concept of career, then, does not mean that a single sequence of stages characterizes the course of disorder: quite the opposite. At each juncture, a person may continue in the same direction or turn onto an alternative pathway. Delineating the boundaries of these alternatives demonstrates that there is more than one way to be "mentally ill." The experience of mental illness, however, is not entirely individualistic, despite being perceived as excruciatingly private. Persons with the same "illness" share at least some things in common with one another as a result of the characteristics of the condition and because of social responses to it. These commonalities constitute a social patterning analogous to career paths, a specific way of acting within career stages, and a particular way of getting from one stage to another (Shafritz, 1980). Or, to put it differently, those who follow a particular career pathway share things in common that differ in some essential feature from the collective experiences of those following alternative career pathways. As sociologists, our work frequently addresses how these pathways are shaped by the structure and functioning of society, by people's locations within systems of stratification, and by the institutions, organizations, and professions that deal with mental illness.

A Conceptual Model of Mental Illness as a Career

The career junctures and stages that link the awareness of ambiguous and atypical feelings, thoughts, and actions with their consequences over time are illustrated in Fig. 29.1. This conceptual framework calls attention to certain facets of career in a selective fashion and is not fully comprehensive. In particular, it does not address in a systematic way the impact of the type of disorder. Yet the typical course of a mental illness tends to be disorder specific: Major depression, for example, differs from schizophrenia. Consequently, this model fits some types of disorder better than others. In addition, not all alternative career paths are indicated for clarity of presentation. Instead, Fig. 29.1 reflects those elements with the strongest connections to the types of sociological theory and research presented in this volume. The career model articulates experiences that are shared in common among people with mental illness, as distinct from the unique experience of any one person. As applied in this chapter, it emphasizes junctures between stages as critical crossroads that delineate alternative career paths, rather than positing a single career route that is followed by all persons with mental illness.

This figure shows a career that begins with normality and turns onto a pathway of acute states of abnormal feelings, thoughts, or behaviors that entails progressive movement into chronic disorder (downward movement through the stages in the shaded area of the figure). Following Karp (1996), this career starts with amorphous feelings that something is wrong that eventually becomes identified as mental illness requiring medical treatment, which sometimes results in an abatement of symptoms, if not a complete cure. However, this improvement often is temporary, and the disorder resurfaces at some later time. This pathway is described as a mental illness career, using the language of psychiatry, because its sequencing reflects the individual's increasing commitment to a medical explanation of what is wrong and the development of self-consciousness as a mentally ill person (Karp, 1996).

However, not everyone who encounters problems in living is beset by symptoms of mental disorder or continues on the pathway to chronic impairment. The uppermost line of Fig. 29.1 represents one major alternative to this career—continuing normality over time, even in the face of exposure to difficult life circumstances. This career pathway is followed by most people most of the time. True, people traveling this route on occasion feel sad or anxious, have confused or intrusive thoughts, or act in a bizarre or socially proscribed manner. In other words, they experience symptoms of mental

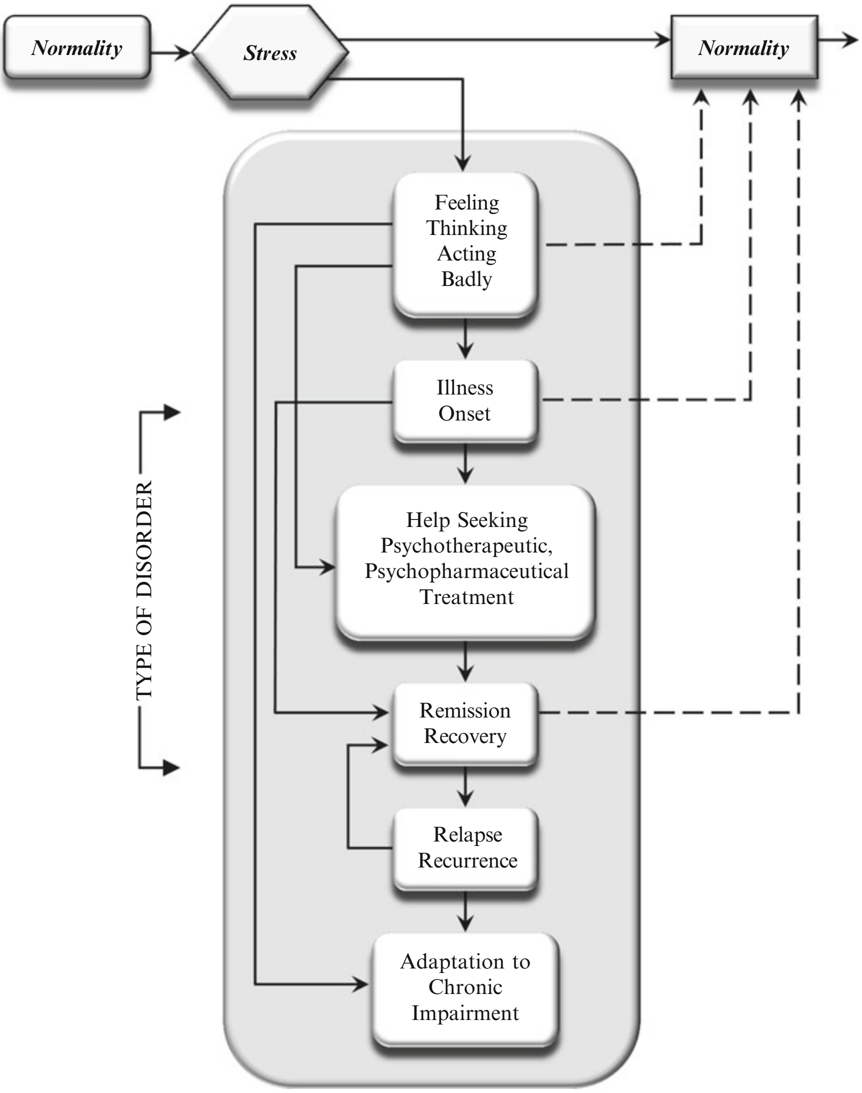

Fig. 29.1 Career model of mental illness

illness. Although these states may be unpleasant or unwanted, they are mild, fleeting, or inconsequential. To the extent that these states fall within the range of socially proscribed ordinary responses to circumstances, such as bereavement, they are more appropriately considered normal problems in living than indicators of mental illness (Horwitz, 2007).

Among those persons who develop symptoms of mental illness, some progress to become chronic psychiatric patients, whereas others discontinue movement along this career pathway and return to normality. The dashed lines in Fig. 29.1 represent some of these alternatives: self-remitting symptoms that are not identified or labeled as mental illness by the individual or by others, disorder that abates without treatment, and the isolated episode of treated disorder that does not portend recurrence.

The junctures that define these alternative career paths are themselves the subject of sociological investigation. Under what circumstances do individuals come to identify atypical feelings and thoughts or aberrant behaviors as mental health problems? What characteristics motivate distressed people to seek help versus continuing to suffer in silence? Among those seeking help, who is most likely to receive it and in what form? Among those receiving treatment, who benefits and who is damaged? How do characteristics of the person (as distinct from characteristics of the disorder), especially those indicative of location in society, influence the occurrence of disorder, how long an episode lasts, whether it will persist indefinitely, or reoccur? An important agenda for future sociological research is identification of the social characteristics and processes that push some persons on the track to chronic impairment and pull others onto more favorable pathways.

To be sure, some of the answers to these questions are contingent upon the nature of the disorder, for example, whether a person faces crippling anxiety at the thought of leaving the house or dreads objects that are only rarely encountered. Thus, we can expect the course of agoraphobia, for example, to differ from that of simple phobia. Other answers lie in the characteristics and circumstances of the person thought to have mental illness, such as the tendency of members of racial/ethnic minorities to underutilize mental health services. Still, other answers are found in the contingencies that shape social reactions to mental illness, for example, the consequences of labeling and stigma. The intent of this chapter is to identify areas in which social factors, as distinct from the nature of the disorder, contribute to the course of mental illness and its consequences.

Career Pathways

Feeling, Thinking, and Acting Badly

The first crossroad, the beginning of this career, is from some existing state of normality to a new state of aberrant feelings, thoughts, or behaviors. As several earlier chapters make clear, abnormality usually means deviations from societal standards, however culturally idiosyncratic. A second meaning, one more apparent in the medical model and the psychiatric approach (see Chap. 3), is deviation from what is usual for the individual. This meaning is centered within the person, not anchored to societal points of reference. The deviation is from what is characteristic of the person (with the notable exception of personality disorders). The person is not feeling, thinking, or acting like him- or herself. In this context, then, normality means consistent with one's usual demeanor, sentiments, and actions.

Normality is manifested as large individual differences in daily mood, customary ways of thinking, and characteristic forms of behavior. The relativity and subjectivity of normality has been addressed throughout this volume and constitutes one of the primary focuses of sociological research in mental health.

Attaching the modifier badly to symptoms of disorder is meant to convey both the disagreeable quality of these states and their unfavorable social evaluation. These occurrences often, albeit not always, evoke distress. For some disorders, particularly internalizing disorders such as depression and anxiety, the state itself is unpleasant, upsetting, frightening, or painful—qualities captured in earlier chapters as references to "suffering." The behavior associated with other disorders also generates distress, but less so for the individual than for those who populate his or her social world. For example, the hostile and irresponsible acts that accompany some personality disorders are problematic because they evoke adverse reactions in others—including attempts to sanction, control, and restrict one's behavior—although, even in this instance, there often are complaints of distress, including tension, boredom, and depression (American Psychiatric Association, 1994, p. 343). Also, many persons with schizophrenia are unaware of their symptoms and course of their illness, including the need for treatment, and, as a result, may be at greater risk of poor clinical and psychosocial outcomes, although lack of insight may be protective against the effects of stigma (Lysaker, Buck, Salvatore, Popolo, & Dimaggio, 2009). Still other disorders create distress for both the person and others as when the cravings and intoxication of the person who is dependent on alcohol evoke hopelessness and helplessness among spouses and children as well as the person who cannot desist.

At this initial stage, aberrant feelings, thoughts, and actions are not identified as symptoms of psychiatric disorder. Instead, these states usually are felt as amorphous and pervasive discomfort for which the individual lacks a vocabulary. As reported by Karp (1996), this ambiguous state is likely to persist for some time because such feelings typically are kept private: The individual searches for meaning on his or her own. Karp cites several factors as interfering with the communication of depression to other people. People often lack the language to adequately describe their condition. They may believe that others cannot comprehend the depth of their misery; there is no reason to express oneself because no one will understand. Finally, the fear of stigma keeps many silent. Distress is concealed to avoid being placed in the socially devalued category of mentally ill person and the negative consequences of being so labeled (see Chap. 25).

Despite fundamental differences in the nature of the disorders, similar themes emerged in a qualitative study of the subjective experience of early psychosis (Judge, Estroff, Perkins, & Penn, 2008). Although individuals perceived changes in mood, thinking, and behavior early on, they did not identify these changes as symptoms of a mental illness; that realization occurred only after they received a diagnosis. Instead, they saw these states as a developmental stage, passing phase, or less stigmatized condition; changes also were ascribed to psychosocial events such as stress, cultural factors such as demons, lifestyle, and other factors such as physical illness. Even unusual occurrences such as hallucinations were normalized—assimilated into the self. Individuals described eventually realizing that past events believed to be authentic actually reflected psychotic symptoms. Once stabilized on medication, most actively questioned their prior sense of reality.

Likewise, Gove (2004) observes that people tend to normalize extreme forms of emotions and behaviors because they occur frequently and there is no definitive line that marks the change from "normal" to "seriously disturbed." He asserts that people utilize a lay understanding of the concept of "nervous breakdown," which they see as a transitory disorder that can be understood as something that might occur to anyone who encounters an inordinate amount of stress, and differentiate it from "mental illness," which is seen as more serious, chronic, and problematic.

A large part of this handbook has been concerned with the change from normality to psychological distress or psychiatric disorder, especially the chapters that address the mental health impact of exposure to stressors and access to resources. In Fig. 29.1, stress is shown as the juncture between normality and disorder. Its prominence in this model is not meant to imply that it is the only factor that leads to a mental illness career; it certainly is not. Social isolation, for example, also puts one at higher risk, just as social support increases the likelihood of continued normal functioning even in the face of adversity, as indicated by the solid uppermost horizontal line in the figure. Accounting for this fork in the road has been the dominant focus of sociological research with an etiological bent.

This juncture between normality and the onset of symptoms provides an opportune time to introduce the topic of prevention. *Primary* prevention refers to interventions occurring before the onset of disorder that are designed to prevent the occurrence of disorder, that is, preventing the incidence of new disorder. Both *universal* interventions, which are targeted to entire communities regardless of risk, such as all students in a school, and *selective* interventions, which are targeted at high-risk groups like children of depressed parents (Barrera, Torres, & Muñoz, 2007; Saxena, Jané-Llopis, & Hosman, 2006), are intended to promote continued movement along the normality pathway even when events or circumstances arise that might otherwise lead to disorder, for example, through instruction in effective coping techniques. In contrast, *indicated* interventions target individuals with early symptoms of disorder that do not meet the criteria for diagnosis but nevertheless foreshadow disorder (Barrera et al., 2007; Saxena et al., 2006). These interventions are meant to enable persons who have become distressed to return to normality rather than progressing further along a course that leads to the occurrence of a psychiatric disorder. For example, cognitive behavioral therapy techniques may be taught to primary care patients who screen positive for depressive symptoms but not major depression in order to alter depressogenic thoughts. This career pathway is shown in the figure by the dashed line leading from "thinking, feeling, and acting badly" to normality. These *primary* prevention interventions are in contrast to *secondary* prevention treatment interventions that occur at later career stages (see below).

Illness Onset

Medical sociologists draw a distinction between disease, a pathological condition, and illness, the subjective awareness of being unwell. These concepts are connected, of course, insofar as the underlying pathology gives rise to its symptoms, that is, to the experience of being sick. However, some pathological conditions do not have perceptible manifestations, such as hypertension, and not all physical symptoms can be accounted for by a detectable organic pathology, such as fibromyalgia. Szasz (1970) maintains that most people diagnosed with a physical disorder feel sick and consider themselves sick, whereas many people diagnosed as mentally ill do not feel sick and do not consider themselves sick.

The second career juncture focuses upon this connection, the developing awareness that something is wrong and the identification of this problem as a form of mental illness. Brown (1995) refers to this process as the social discovery of the condition—the ways in which people, organizations, and institutions determine that there is a disorder. In Fig. 29.1, this crossroad is labeled illness onset to underscore the subjective awareness that emerges at this time. The person is thinking, feeling, or acting badly for some time, usually a rather long time, but only now are these states recognized as symptoms of mental illness.

The individual may awaken to this realization on his or her own, often after some type of crisis, during which it becomes evident that something is terribly wrong (Karp, 1996; Thoits, 1985). It is not uncommon, however, for others—family, physicians, and police—to first identify a person as being mentally disturbed. In this scenario, the individual may eventually acquiesce to this interpretation or vehemently resist it (Clausen & Yarrow, 1955). Involuntary commitment illustrates the latter scenario: The illness onset stage is bypassed insofar as the person does not feel unwell but is so identified by others. These career pathways are shown in Fig. 29.1 by the solid line leading from “feeling, thinking, and acting badly” to later stages in the illness career and by the dashed line leading from this initial stage to normality. These pathways are taken up again in the following section on treatment.

For the moment, however, let us concentrate on the person who undergoes perceptible distress and comes to view it as abnormal. Karp (1996) describes this metamorphosis as an “identity turning point,” the development of self-consciousness as a “troubled person.” He describes how individuals construct an “illness identity” to make sense of their psychic discomfort. This illness identity evolves over time, reflecting patterned changes in consciousness and perception. Thus, identity is not static, emerging at this career stage and remaining fixed thereafter. Instead, additional sequenced identity transformations constitute the core of Karp’s description of the depression career, involving the person’s increasing commitment to a medical definition of the problem.

In Fig. 29.1, the first stage—feeling, thinking, and acting badly—is separated from the second stage—illness onset—because the person initially lacks the self-perception that something is wrong with him- or herself. I make this distinction to emphasize that only some symptomatic persons go on to recognize this condition as an illness (Yokopenic, Clark, & Aneshensel, 1983). For example, roughly one out of five adolescent primary care patients who screened positive for depression did not acknowledge having a depressive problem (Tanielian et al., 2009). In this manner, some people persist in a nebulous state until their symptoms abate, or they make some adaptation that enables them to live with their discomfort.

Thus, there are three main career paths at this point. One leads to increasing involvement with the institutions concerned with mental illness and corresponding transformations of self. This pathway is signified by downward movement in the shaded area of Fig. 29.1. The other pathways lead to ambiguous states that exist largely outside of these institutions. In many instances, these atypical states are self-remitting after some passage of time, forming the second pathway, which is indicated in the figure as the dashed line leading back to normality. In other instances, the nebulous state persists, becoming a chronic source of impairment, the third pathway shown as the solid line to the far left in Fig. 29.1.

The attribution of mental illness to states of atypical feelings or thoughts or to problematic behavior is not intrinsic to the experience of states, then; instead, this understanding of what is wrong is open to interpretation precisely because the meaning of these states is uncertain. Balint describes the initial period as the "unorganized" phase of illness—an agglomeration of unclear, unconnected, and sometimes mysterious complaints and symptoms—that "settles down" into an "organized" illness (cited in Brown, 1995; Scheff, 1966). Scheff maintains that the stabilization of symptoms into an organized illness is not inevitable, that other outcomes are possible at this juncture: The individual may succeed in defining the condition or situation in terms other than illness—as quirkiness, for example.

For Karp (1996), the critical aspect of this period entails the attributions the individual makes about the causes of his or her discomfort. During the nebulous feeling stage, most people attribute their distress to external or situational conditions: a friend moves away, mother's health seems to be failing, and a hoped for promotion fails to materialize. The decisive moment in the development of an illness identity occurs when the circumstances an individual perceives as troubling him- or herself change, but the distress continues. Karp contends that the persistence of distress in the absence of its supposed cause necessitates a redefinition of what is wrong. This redefinition typically locates the source of the problem as somewhere within the person, within his or her mind and body, in the sense that "something is really wrong with me." In his sample of chronically depressed persons, most people came to favor a biochemically deterministic explanation for the cause of their distress. For these individuals, the failure of external explanations and the conversion to an internal explanation is a critical identity turning point in the depression career.

The persistence of distress over time also is a key feature of Thoits' (1985) account of self-labeling as being mentally ill, but she addresses the mismatch between affect and situation (as distinct from change in the situation) as the precipitating element. She theorizes that emotional behavior, like other behavior, is governed by social expectations, specifically, that emotional norms stipulate the range, intensity, and duration of feelings that are appropriate to given situations (see Hochschild, 1979, 1983). Thoits defines "norm-state discrepancy" as the individual's awareness of a noticeable discrepancy between his or her private emotions and those prescribed by emotional norms. The persistence and recurrence of discrepant feelings constitute emotional deviance. As explained by Thoits, the violation of emotional norms may elicit mental illness self-attributions, but only when the individual is aware of these discrepancies; otherwise, processes of labeling by others should apply (see below). She predicts that isolated instances of norm-violating emotions are not likely to produce self-attributions of being mentally ill.

This perspective assumes that individuals are aware of both their feelings and emotional norms and are motivated by social inducements to bring discrepant emotions into conformity with societal expectations. This resolution may be accomplished by aligning situational features with existing emotions or, more often, by bringing emotions into conformity, that is, by "feeling work" or emotion-focused coping (Thoits, 1985). The failure of these efforts forces individuals to confront the meanings of their unconventional feelings, and they may determine that they are "inadequate, distressed, disturbed, having nervous breakdowns, unable to cope, going crazy" (Thoits, 1985, p. 242). Such self-attributions motivate people to obtain treatment, she argues, which in turn may help them to feel better, that is, to feel normatively.

The theories just described help to explain why people come to see themselves as having a disorder, but largely leave unaddressed why only some people adopt this perspective, whereas others favor alternative explanations and do not explain how these alternatives are linked to one's social characteristics. Mechanic (1972) contends that external influences on definitions of internal emotions are especially important when the person lacks an appropriate explanation of what is happening. Social networks appear to be important in this regard. Thus, Pescosolido (1992) describes a dynamic social process of coping triggered by illness, physical or mental, in which networks not only help to define the situation but also influence decisions regarding whether something is wrong, what, if anything, should be done about it, and how to evaluate results. For example, having vicarious exposure to the formal mental health system—knowing someone else who has had treatment—influences whether a personal problem is identified as a mental health problem (Yokopenic et al., 1983). Thus, the circumstances that lead one to adopt an illness identity are not entirely intrinsic to the nature of the disorder, even though some disorders may lend themselves more readily than others to this interpretation.

Explanations of distress are limited, by and large, to the scope of the individual's own personal life. What is wrong is located within one's self or within the particulars of one's daily life. The distressed person's consciousness rarely connects his or her psychological well-being to the ways in which society is organized as a whole, to broad cultural transformations, or macrolevel economic forces (Karp, 1996). For example, a single mother on welfare may attribute feeling depressed to financial difficulties, role overload, or living in an unsafe neighborhood, but she is unlikely to refer to the inequality inherent in the gender stratification of society. Thus, the ways in which we as sociologists think about these processes, especially the social causes of disorder, are not the ways in which the typical person understands what is troubling them. Personal explanations of disorder first rely on problematic aspects of the individual's life and when these accounts fail, turn to problematic aspects of the self.

Related to this point, Horwitz (2007) contests the attribution of mental illness to psychological distress that is a culturally appropriate response to stressful circumstances and, hence, better viewed as ordinary distress or problems in living (see Chap. 6). His objection rests on the definition of mental disorder presented in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000, p. xxxi), specifically that disorder "must not be merely an expectable and culturally sanctioned response to a particular event,…it must currently be considered a manifestation of a behavioral, psychological, or biological dysfunction in the individual." Distress that is a function of the external environment is a naturally selected response to stressful situations, Horwitz argues, and not a genetic defect, a brain or personality dysfunction, or a mental disorder. Therefore, he concludes that "even highly distressing emotional states need not be viewed as indicative of mental disorders if they occur in situations that would naturally lead ordinary people to be seriously distressed" (Horwitz, 2007, p. 213). He observes that defining such conditions as individual pathologies implies that treatment is the appropriate remedy and directs attention away from changing the social arrangements that generate psychological distress. In this regard, feminist critiques have called attention to the adverse effects of psychotherapeutic and pharmaceutical treatment on women as individuals and for women as a social group (Chessler, 1972; Russell, 1995). For example, the self-help therapeutic movement has been criticized for encouraging women to understand that the solution to their unhappiness is to change themselves rather than to change the social conditions that lead to unhappiness (Rapping, 1996).

The considerations raised by Horwitz (2007) speak to the ways in which sociology and psychiatry conceptualize psychological distress and mental disorder, conceptualizations that shape and are shaped by broader societal concepts of normality. The medicalization of distress in Western societies (see Chap. 4) forms the context within which individuals seek to make sense of their experiences. Interpretations that privilege a medical model are signposts at the help-seeking juncture in the mental illness career pointing toward treatment, whereas other interpretations, such as defining the situation as ordinary problems of living, point to other remedies.

Help Seeking and Treatment

The concept of illness onset presupposes self-awareness, the recognition that something is "seriously wrong with me," a self-attribution that both Karp (1996) and Thoits (1985) maintain leads distressed persons to seek professional help, shown in Fig. 29.1 as the progression from illness onset to help seeking and treatment. Karp observes that treatment usually is sought only after numerous other remedies have been tried and have failed. Other remedies include, for example, self-care, self-medication, seeking advice from family and friends, coping, and accommodation (Biddle et al., 2007; Pescosolido, Gardner, & Lubell, 1998).

Treatment refers to interventions occurring after the onset of a disorder in order to bring a quick end to the episode (Barrera et al., 2007). As distinct from *primary* prevention, which seeks to avoid the incidence of new disorder, treatment is a form of *secondary* prevention that seeks to lower the rate of established cases of the disorder in the population (prevalence) through early detection and treatment of diagnosable conditions (Saxena et al., 2006).

Most people who are thought to have mental disorder do not receive treatment. Based on national household probability samples, only 40% of those who meet diagnostic criteria for a psychiatric disorder in the past year have used any mental health service during that time (Wang et al., 2005), with service use generally being lower among racial/ethnic minority groups: 32% for African Americans and Caribbean blacks (Neighbors et al., 2007), 34–43% among Latinos (Alegría et al., 2007), and 36% among Asian Americans (Abe-Kim et al., 2007). Not everyone who identifies their distress as a mental health problem seeks help, especially professional help (Yokopenic et al., 1983). Their condition may run its course over time, as indicated by the solid line to the left in Fig. 29.1 that bypasses treatment and leads directly to remission/recovery and then normality, as indicated by the dashed line to the right. A less favorable course entails adaptation to chronic impairment, as indicated by the other solid line to the left that also bypasses treatment.

In addition, some of those who arrive at the career stage of receiving treatment do not seek it and, furthermore, do not see themselves as needing treatment or, indeed, as having a disorder. In this instance, the illness onset stage is bypassed as a result of the actions of others—friends, family, police, emergency room physicians, and so forth—who determine that one's behavior, thoughts, or feelings deviate from normality sufficiently to require treatment, including coerced treatment. Movement along this career pathway is governed then not by one's own interpretation of the situation but by the interpretations imposed by others. This occurrence is shown in Fig. 29.1 as the pathway to the left that bypasses illness onset.

Several studies contravene the idea of a logical, orderly progression through well-defined stages from symptom recognition to diagnosis and treatment, suggesting a much more disorderly process than captured in conventional service utilization research. For example, in a qualitative study of non-help seeking among psychologically distressed young adults, Biddle and colleagues (2007) found a cycle of avoidance that usually involves accommodating, denying, or normalizing symptoms rather than resolving the condition. They describe a circular, ongoing, and protracted process that entails reconsidering the boundaries between "normal" and "real" distress: With each cycle, the threshold for "real" distress and help seeking may shift upward, just beyond the current level. The researchers infer that help seeking transforms distress from a private reality to something public and official: Medicalization of distress is resisted out of apprehension about potential negative social consequences of being "treated" for mental illness.

In a seminal study, Clausen and Yarrow (1955) described the pathways to psychiatric hospitalization as haphazard and discontinuous, often leading to "dead ends" before chance occurrences lead to hospitalization (see Chap. 24 for a description of this study). In a similar vein, Pescosolido and colleagues (1998) report that less than half of persons with severe mental illness described the process of making their first contact with mental health treatment in a way that resembles the model of rational choice implicit in dominant theories of service utilization. Instead, many described extralegal coercion—resistance to being pushed into care by relatives, friends, supervisors, and coworkers; still others gave accounts that lacked a clear agent, referred to as "muddling through"—neither resisting nor seeking treatment (see Chap. 24). Related to this point, people's perceptions and the official reports of psychiatric hospitalization may not always align, with persons who are admitted voluntarily sometimes reporting coercion and those with a legally involuntary status sometimes indicating that the admission was voluntary (Hoge et al., 1997, cited in Pescosolido et al., 1998).

Gove (2004) recently differentiated lay perceptions of "nervous breakdowns" and "mental illness" and applied these distinctions to the "career of the mentally ill," with an emphasis on the role of hospitalization that harkens back to the early work of Goffman (1961) and Scheff (1966). He contends that mental hospitalization is socially defined as an act of last resort: It occurs because other remedies are seen as inadequate due to the seriousness of the problem, because all other remedies have failed, or for both of these reasons. He attributes this perspective to both persons who voluntarily seek treatment and those who seek admission because of the "persuasion, threats, and ultimatums of others." Gove maintains that most persons who have been psychiatrically hospitalized have a transitory disorder, get better, and return to societal roles where they function in a normal manner; a few do not and encounter processes that tend to promote secondary deviance, that is, adaptations to problems created by the societal reaction to their hospitalization. This conclusion contests both classic labeling theory, which attributes the stabilization of psychiatric symptoms into the social role of mentally ill person to societal reactions (Scheff, 1966), and modified labeling theory, which argues that self-labeling by mental patients leads to unintended social rejection (Link, Cullen, Struening, Shrout, & Dohrenwend, 1989).

Movement along the pathways leading toward or away from treatment is influenced not only by the severity and persistence of the disorder but also by social network factors. Pescosolido (1992) distinguishes a distinctively sociological approach to help seeking grounded in the idea that social networks provide the mechanism through which individuals learn about, come to understand, and attempt to handle difficulties. For example, seeking professional help for emotional problems is promoted by having friends or family suggest it and by knowing someone who has used a mental health service (Yokopenic et al., 1983). Also, Pescosolido and colleagues (1998) found that individuals who have larger, closer social networks are more likely to report some degree of coercion in their entry into treatment. Pavalko, Harding, and Pescosolido (2007) recently found that the relative influence of illness and social characteristics on psychiatric hospitalization depends on where the person is in their own illness career as well as when that career is located in historical time.

According to Karp (1996), the progression to treatment entails an identity turning point, an increasing commitment to the idea that whatever is wrong is biological or biochemical. Perhaps the pivotal event in this sequence is receiving an official diagnosis. Karp describes a diagnosis as a relief on the one hand, because having a label to attach to one's condition brings the possibility of treatment and the absolution of responsibility, and as problematic on the other hand because it places one in the devalued category of being mentally ill and erodes self-efficacy. He describes this interpretive dilemma as one that resurfaces repeatedly as the person moves toward an increasing medicalization of his or her condition. This dilemma is consistent with studies suggesting that the therapeutic benefits of treatment may be offset by the adverse consequences of being identified as mentally ill (Link, Struening, Rahav, Phelan, & Nuttbrock, 1997; Rosenfield, 1997).

Similar identity turning points occur with regard to medication regimens. Karp (1996) identifies the start of medications as a decisive juncture in one's self-redefinition as an emotionally ill person (rather than merely a troubled person). He describes several typical phases: resistance, trial commitment, converted, and disenchanted. What begins as reluctance becomes a routine way of life with a new identity, that of a person who suffers from a biochemically based emotional illness. Disenchantment follows from the failure of drugs to provide a cure and to prevent the recurrence of depression. Again, this perspective fits the model of voluntary help-seeking behavior better than the case of involuntary commitment, where medications may be unwanted and resisted from the outset.

Based on a metaethnography of qualitative studies of patients' experiences with antidepressive medications, Malpass and colleagues (2009) recently conceptualized dual "moral" and "medication" careers, as the interplay between a "meaning-making process" and a "decision-making process," respectively. Synthesizing this literature, they reason that taking mood-altering medication entails a process of restructuring the self. For some patients, medication is seen as correcting a lifelong mood imbalance that reveals a new but innate self. For others, the old self that has been distorted by depression is restored. For yet other patients, a new chemically enhanced self emerges, a self-perception that often is rejected as being artificial and inauthentic. In this instance, antidepressants reduced patients' own inner sense of being normal even as the medications increased the sense of being able to function normally.

Karp (1996) describes a process of disenchantment with treatment for the chronically depressed persons in his study. He attributes this disillusionment, which he calls inevitable, to the immense gap in expectations that patients bring to treatment and what their doctors actually can deliver. Patients seek a cure, whereas psychiatry frequently only provides ephemeral relief from symptoms. Each time depression returns, it diminishes belief in a medical remedy.

Remission, Recovery, Relapse, and Recurrence

In comparison to etiological research, less is known about the social factors that differentiate a single acute episode of disorder from a chronic and recurrent course. In Fig. 29.1, the isolated episode of disorder is shown by the dashed line leading from remission/recovery to normality, signifying that this episode represents a departure from the individual's more typical state of normal functioning and is followed by seemingly complete and lasting recovery. The alternative pathway is represented by the solid lines from remission/recovery to relapse/recurrence and by the feedback loop from relapse/recurrence to remission/recovery. This cycle signifies a recurrent and chronic course in which the typical state of the individual may include some impairment.

For example, based on a systematic review, Allardyce and van Os (2009) conclude that schizophrenia most often is associated with persistent chronic disability that profoundly affects a person's development and quality of life. However, they also describe several possible courses ranging from complete recovery to continuous unremitting psychopathology; between these extremes, a substantial number of patients have multiple episodes of psychosis interspersed with partial remission. Similarly, Treuer and Tohen (2010) review the natural history of bipolar disorder and deduce that it often entails multiple relapses and impaired psychological functioning despite advances in pharmacological and non-pharmacological treatments; although long-term symptom remission may be achieved, it improves but does not guarantee functional recovery. Finally, for major depressive disorder, a prospective population-based cohort study with 23 years of follow-up found that it is unremitting in 15% of cases and recurrent in 35%, but that about half of those with a first-onset episode recover and have no further episodes (Eaton et al., 2008).

The social factors that account for the occurrence of disorder at one point in time are not necessarily the same factors that account for its recurrence at a later time or its persistence over time. For example, whereas an acute life event tends to evoke an isolated episode of depressive symptoms, chronic emotional distress is related to the frequent repetition of events over time; to the persistence of strains within major social roles—occupation, family, and finances; and to the continuing absence of social support (Aneshensel, 1985; Lin & Ensel, 1984). In this manner, the social sources of chronic impairment are likely to be found in the ongoing trajectories of the individual's life course.

With regard to the divergence of these two career pathways, Barrera and colleagues (2007) recently reviewed the distinction drawn between (a) recurrence, a new episode that occurs during recovery, and (b) relapse, the resurgence of an episode that had gone into remission, with (c) remission being differentiated from (d) recovery by the presence or absence of an active episode and by the length of time one has remained asymptomatic (e.g., 2 weeks vs. 2 months for depression). They further describe maintenance as interventions that occur after the acute episode has abated in order to prevent relapse, recurrence, or disability in a patient who has received treatment, for example, prophylactic antidepressants or psychotherapy—a form of *tertiary* prevention (Saxena et al., 2006). Barrera and colleagues reason that recurrent depression is preventable because only 50% of persons with one episode of depression have a second episode, although they acknowledge that 90% of those with three episodes have a fourth episode.

Lieberman and associates (2008) maintain that current interventions for people with schizophrenia are effective for specific dimensions of the illness and functions, are usually ameliorative rather than curative, and are effective only for a proportion of patients. Hence, they suggest defining recovery in terms of improvements in specific domains rather than globally—for example, “recovery of cognitive functioning” or “recovery of vocational functioning.” They contend that this definition realistically addresses states of relative and partial recovery that patients can achieve in response to treatment.

Markowitz (2001) provides a multifaceted definition of recovery that includes not only controlling symptoms but also regaining a positive sense of self, dealing with stigma and discrimination, and trying to lead a productive and satisfying life. In this perspective, recovery is not an end point where symptoms have ceased and sense of self and quality of life are restored to some optimal level, but rather an ongoing process. Although symptoms may subside, Markowitz points to the adverse consequences of mental illness that often are embedded deeply in peoples’ lives, including social isolation, unemployment, low income, and poor housing. These considerations lead him to underscore the importance of recovery-oriented treatment systems and services that go beyond medication and a medically oriented interest in controlling symptoms and that also entail social and vocational training to facilitate involvement in meaningful social activity. Likewise, Ware, Hopper, Tugenberg, Dickey, and Fisher (2008) propose an innovative recovery model for persons with severe mental illnesses that emphasizes quality of life that is based upon capacity development for social integration. Similarly, Noiseux and colleagues (2010) conceptualize recovery not as a cure but as a profoundly personal path that entails constructing meaning around one’s mental illness experiences.

Gove (2004) points out that the psychiatric model presumes that with time and treatment most persons get better, but the model does not address the issue of identity and how one re-obtains the status of normality, especially after hospitalization. He observes that no single pathway leads to reattaining normality, nor is there a clearly developed script that socially certifies one is now “normal,” a status not all treated patients attain. Gove describes the passage back to normality as an uneven one, in that the former patient and others often feel unsure about the trajectory he or she is on; social certification that a treated person is now “normal” is held in abeyance until the person has performed in a normal manner over a substantial period of time, a reclamation of self that occurs only in retrospect. Lay definitions that attribute the hospitalization to a “nervous breakdown” provide a definition of the situation that Gove sees as facilitating the patient’s ability to regain the status of normality because it avoids the problems associated with being socially defined as “mentally ill,” especially for persons who have a history of normality, have adequate social and instrumental skills, and have been relatively well integrated into the community. Consequently, he concludes that most persons who develop an episode of a serious mental disturbance lead a normal life, while a few persons lead lives that revolve around their mental disorders.

This conclusion gainsays the adverse consequences of being a mental patient set forth in labeling theory. Indeed, Scheff (1966) explains that his model is not meant to explain the initial occurrence of rule-breaking behavior, but rather is intended to account for its continuation or repetition. He argues that labeling systematically blocks reentry into non-deviant roles: The mental patient is rewarded for continued deviation and punished for attempts to conform, creating a pattern of stable secondary deviance. Modified labeling theory also addresses the consequences of labeling persons as “mental patients” (Link et al., 1989). From this perspective, pejorative societal stereotypes become personally applicable when individuals receive treatment, prompting patients to believe that they will be devalued and subject to discrimination and leading them to feel threatened by social interactions. As a result, individuals may keep their treatment a secret, try to educate others about their situation, or withdraw from social contacts that they perceive as potentially rejecting. These coping strategies can lead to negative personal and social consequences.

Thoits (2011) recently elaborated these labeling theories to include personal agency as indexed by stigma resistance, conceptualized as opposition to the imposition of mental illness stereotypes by others. She distinguishes two common forms of resistance: behavioral strategies that challenge, confront, or fight stigmatization and cognitive strategies that deflect, impede, or refuse to accept stigmatization. She concludes that evidence is undeniable that derogation and discrimination are both expected and encountered by the vast majority of persons with a mental disorder and that stigma creates serious and persistent problems in their work and social lives.

Critics of labeling theory assert, however, that stigma is of minor importance to the course of mental illness, that psychiatric treatment often is therapeutic, and that many patients believe they have been helped by psychotherapy, hospitalization, or psychopharmaceutical treatments (Gove, 1982, 2004). Others have a decidedly more pessimistic view. Research indicates that stigma may impede people from seeking or fully participating in mental health services in the first place (Corrigan, 2004). In addition, social rejection is a persistent source of social stress for patients recently discharged from a long-term state hospital, which increases feelings of self-deprecation that, in turn, weakens a sense of mastery (Wright, Gronfein, & Owens, 2000). Also, Rosenfield (1997) shows that both treatment and stigma are related to quality of life, but in opposite directions, so that the beneficial effects of treatment are evident only to the extent that these effects are not offset by the detrimental effects of stigma.

Paterson's (2001) "Shifting Perspectives Model" depicts living with chronic illness as ever-changing perspectives about the disease that enables people to make sense of it. People with chronic illness are described as living in "the dual kingdoms of the well and the sick"; as the illness and its personal and social context changes, people's perspectives shift in the degree to which illness is in the foreground or background of their world. Paterson infers that persons with chronic illness attempt to create consonance between self-identity and the identity that is shaped by the disease, the social construction of the illness by others, and life events. This model provides a useful framework for chronic mental illness as well.

Karp (1996) has described chronic depression as a career stage of coping and adaptation to a condition that ebbs and flows over time but never completely vanishes from one's life. This adaptation occurs when the person has tried a variety of remedies, all of which have failed to eliminate the pain of depression. He contends that the recognition of depression's continuing presence in their lives prompts a redefinition of its meaning among persons with depression, a reordering of its place in one's life, and a shift from a medical model to a spiritual language of transformation. This search for meaning is a characteristically human endeavor that is now applied to an ongoing problem of living, the presence of enduring distress (see also Frank, 1973). Karp maintains that this new awareness enables individuals to see meaning in their suffering. For example, some feel that it has been a critical opportunity for learning or that it has enhanced their capacity for empathy. This transcendental solution, however, is not universal. Some continue to seek treatment for what they consider an illness; others suffer in silence from an unnamed misery.

Conclusion

The concept of career encapsulates a set of cumulative stages and junctures, making it an effective device for describing the entirety of a person's experience of mental illness. This panoramic perspective encompasses the unified sequence of events leading up to the present time. It, thus, draws attention to the continuity of experience: The meaning and impact of one's current state are shaped by what has happened in the past and by what is anticipated for the future. As emphasized throughout this chapter, there is no single mental health career, but rather multiple ways of enacting the social role of a person with mental illness.

Although characteristics of the particular disorder direct its natural history, the course of psychiatric impairment over time is shaped by social processes that transcend the disorder itself. As we have seen, persons experiencing similar states often follow divergent paths in response to these states. Here, the issue is not the etiology of disorder, but rather what transpires in the wake of symptom onset. Also, the experience of mental illness is profoundly personal because one's self is threatened, but it also is inherently social. The idiosyncratic features that make each individual's passage through a mental illness career unique coexist with common treads that delineate distinct career pathways shared with others.

As sociologists, we address these commonalities and how they are influenced by social characteristics and processes. This orientation has been evident throughout this volume. We first considered how society shapes its members' understanding of mental illness and how these perceptions affect people thought to have mental illness. The impact of social structure and functioning on the likelihood of developing a disorder then was examined, with an emphasis on social stratification as indexed by achieved and ascribed social statuses and by the social roles people occupy. Then, the stress process was presented as a predominant model of social etiology, with particular attention to explaining the connections between location within the social system and mental health disparities in terms of the concepts of social stressors and psychosocial resources. This material on social causation was followed by a consideration of the social consequences of mental illness, for the affected individual and for others. Finally, we addressed the institutions that shape the course of a mental illness career. Collectively, this volume demonstrates that mental health and illness is as much about society as it is about the psyche.

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