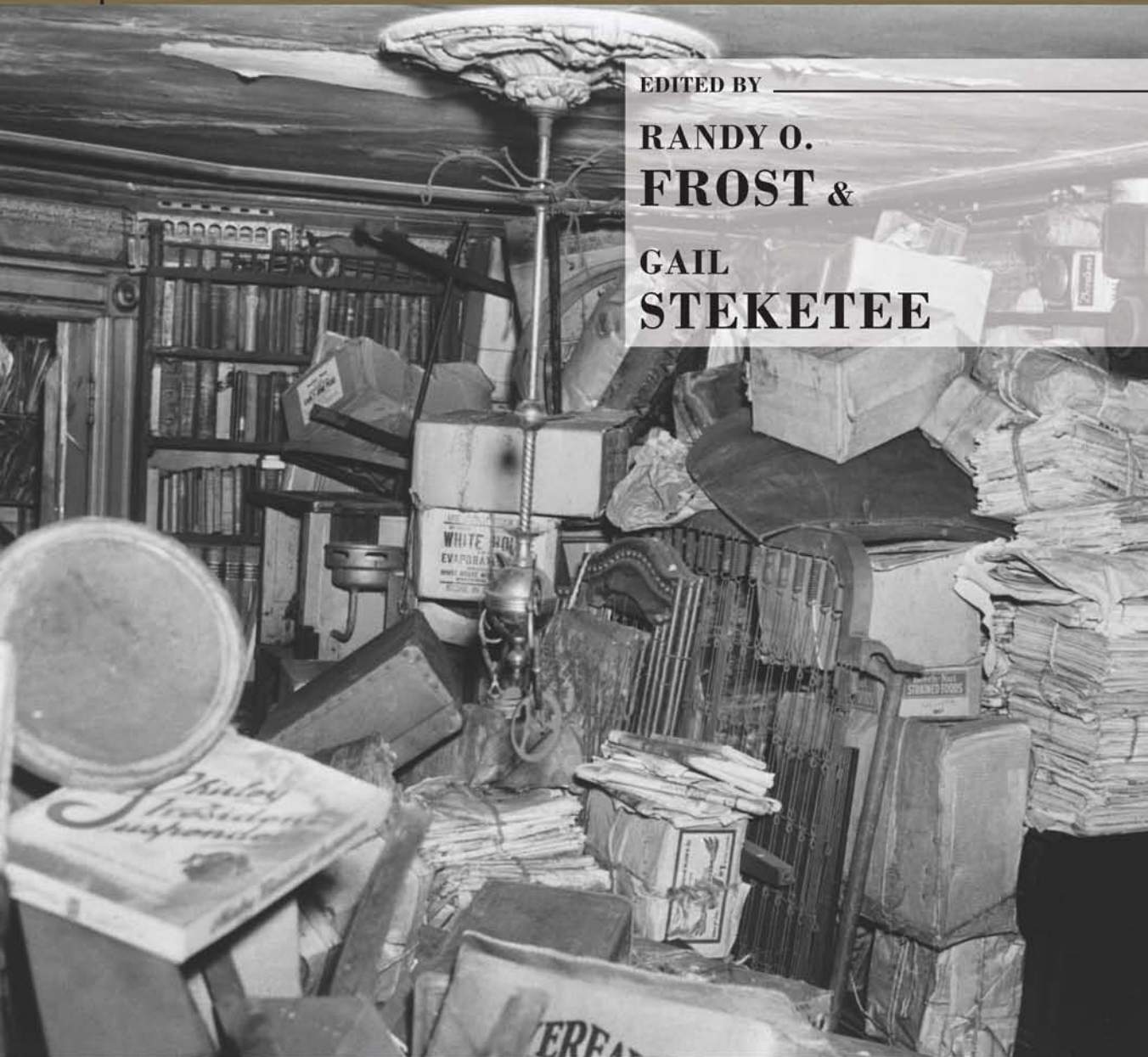




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EDITED BY

**RANDY O.
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**GAIL
STEKETEE**

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HOARDING *and*
ACQUIRING

The Oxford Handbook of
Hoarding and Acquiring

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The Oxford Handbook of Hoarding and Acquiring

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Randy O. Frost

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Argentina Austria Brazil Chile Czech Republic France Greece
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Published in the United States of America by
Oxford University Press
198 Madison Avenue, New York, NY 10016

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The Oxford handbook of hoarding and acquiring / edited by Randy O. Frost and Gail Steketee.
pages cm.—(Oxford library of psychology)
ISBN 978-0-19-993778-3

1. Compulsive hoarding—Handbooks, manuals, etc. 2. Compulsive behavior—Handbooks, manuals, etc.
I. Frost, Randy O., editor of compilation. II. Steketee, Gail, editor of compilation.
RC569.5.H63O94 2014
616.85'84—dc23
2013019001

9 8 7 6 5 4 3 2 1
Printed in the United States of America
on acid-free paper

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Peter E. Nathan
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ABOUT THE EDITORS

Randy O. Frost

Randy O. Frost received his PhD from the University of Kansas in 1977 and is currently the Harold and Elsa Siipola Israel Professor of Psychology at Smith College. He is an internationally recognized expert on obsessive-compulsive disorder and compulsive hoarding and has published more than 150 scientific articles and book chapters on these topics. Dr. Frost serves on the Scientific Advisory Board of the International OCD Foundation and on the editorial board of several scientific journals. Dr. Frost is also a member of the American Psychological Association, the Association for Behavioral and Cognitive Therapies, and the Anxiety Disorders Association of America. Along with Dr. Gail Steketee, Dr. Frost edits the Hoarding Center on the International OCD Foundation website.

His self-help book, *Buried in Treasures*, received a Self-Help Book of Merit Award from the Association for Behavioral and Cognitive Therapy in 2010.

His best-selling book, *Stuff: Compulsive Hoarding and the Meaning of Things* (with Gail Steketee), was published by Houghton, Mifflin, Harcourt in 2010 and was a finalist for the 2010 Books for a Better Life Award. *Stuff* was also named a Must-Read Book for 2011 by Massachusetts Book Awards and was a New York Times best seller as well as a Sunday Book Review Editors' Choice Selection. In 2012 he was awarded the Lifetime Achievement Award for excellence in innovation, treatment, and research in the field of hoarding and cluttering by the Mental Health Association of San Francisco.

Gail Steketee

Dr. Gail Steketee is Dean and Professor of the Boston University School of Social Work. She received her masters and PhD degrees from the Graduate School of Social Work and Social Research at Bryn Mawr College. Her research focuses on understanding the causes and consequences of obsessive-compulsive (OC) spectrum conditions, especially hoarding disorder (HD), and on developing and testing evidence-based treatments for these and related mental health conditions. She has received several grants from NIMH and from the International OCD Foundation to examine family factors that influence treatment outcomes for anxiety disorders and to test cognitive and behavioral treatments for OCD, HD and body dysmorphic disorder. Her research on hoarding with collaborators Drs. Randy Frost and David Tolin has contributed significantly to the development of diagnostic criteria for HD which appear in the Diagnostic and Statistical Manual for Mental Disorders (DSM-5, 2013). Dr. Steketee has published over 200 articles and chapters and authored or co-authored more than 15 books on these

topics, and has appeared in a variety of media venues regarding her work on hoarding. She was elected to the American Academy of Social Work and Social Welfare and has received awards from the Association of Behavioral and Cognitive Therapies and the Society for Social Work Research. She serves on editorial boards and as reviewer for several journals in social work, psychology, and psychiatry, as well as on advisory boards of US and Canadian OCD foundations and the Council of Social Work Education.

CONTRIBUTORS

Catherine R. Ayers

VA San Diego Healthcare System
University of California, San Diego
La Jolla, CA

Russell Belk

Schulich School of Business
York University
Toronto, Ontario, Canada

Christiana Bratiotis

School of Social Work
University of Nebraska Omaha
Omaha, NE

Demet Çek

Department of Psychology
University of Miami
Miami, FL

Lorena Fernández de la Cruz

Institute of Psychiatry
King's College London
London, UK

James DiLoreto

Institute of Living
Hartford Hospital
Hartford, CT

Andres Fonseca

Locum Consultant Psychiatrist
Cambridgeshire and Peterborough NHS
Foundation Trust
London, UK

Randy O. Frost

Department of Psychology
Smith College
Northampton, MA

Jessica R. Grisham

School of Psychology
University of New South Wales
Kensington, Australia

Tamara L. Hartl

Pacific Anxiety Group
Menlo Park, CA

Matthew E. Hirschtritt

Program for Genetics and
Epidemiology of Neuropsychiatric
Symptoms
Department of Psychiatry
University of California, San Francisco
San Francisco, CA
and
Cleveland Clinic
Lerner College of Medicine
Case Western Reserve University
Cleveland, OH

Kathryn Holden

University of Sheffield
Sheffield, UK

Ian Howard

Department of Psychology
University of California, San Diego
La Jolla, CA

Stephen Kellett

Centre for Psychological Services
Research
University of Sheffield
Sheffield Health and Social Care
NHS Foundation Trust
Sheffield, UK

Michael Kyrios

Brain & Psychological Sciences Research
Centre
Faculty of Life & Social Sciences
Swinburne University of Technology
Melbourne, Australia

Melanie Maddox

Department of Psychology
University of California, San Diego
La Jolla, CA

David Mataix-Cols

Department of Clinical Neuroscience
Karolinska Institutet
Stockholm, SE

Carol A. Mathews

Department of Psychiatry
Program for Genetics and Epidemiology of
Neuropsychiatric Symptoms
University of California, San Francisco
San Francisco, CA

Joseph F. McGuire

Department of Psychology
University of South Florida
Tampa, FL

Astrid Müller

Hannover Medical School
Hannover, Germany

Jordana Muroff

School of Social Work
Boston University
Boston, MA

Sadia Najmi

VA San Diego Healthcare System
Department of Psychology
San Diego State University
San Diego, CA

Melissa M. Norberg

National Cannabis Prevention and
Information Centre
University of New South Wales
Kensington, Australia

Jennifer M. Park

Department of Psychology
University of South Florida
Tampa, FL

Gary J. Patronek

Cummings School of Veterinary
Medicine
Tufts University
Medford, MA

Fred Penzel

Western Suffolk Psychological
Services
Huntington, NY

Alberto Pertusa

Institute of Psychiatry
King's College London
London, U.K.

Stephanie D. Preston

Department of Psychology
University of Michigan
Ann Arbor, MI

Sanjaya Saxena

Department of Psychiatry
University of California, San Diego
San Diego, CA

Kristin Slyne

Institute of Living
Hartford Hospital
Hartford, CT

Ashley M. Smith

University of Miami
Miami, FL

John Snowdon

Discipline of Psychiatry
University of Sydney
Sydney, Australia

Gail Steketee

School of Social Work
Boston University
Boston, MA

Eric A. Storch

Department of Pediatrics
University of South Florida
Tampa, FL

Kiara R. Timpano

Department of Psychology
University of Miami
Miami, FL

David F. Tolin

Institute of Living
Hartford Hospital
Hartford, CT
School of Medicine
Yale University
New Haven, CT

Michael A. Tompkins

San Francisco Bay Area Center for
Cognitive Therapy
University of California, Berkeley
Berkeley, CA

Anna Van Meter

Department of Psychology
University of North Carolina at Chapel
Hill
Chapel Hill, NC

Brian D. Vickers

Department of Psychology
University of Michigan
Ann Arbor, MI

Michael G. Wheaton

University of North Carolina at Chapel
Hill
Chapel Hill, NC

Alishia D. Williams

University of New South Wales
Kensington, Australia

Sheila Woody

Psychology Department
University of British Columbia
Vancouver, BC, Canada

Blaise L. Worden

Institute of Living
Hartford Hospital
Hartford, CT

Julia C. Yang

University of Miami
Miami, FL

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Introduction

Introduction and Overview

Randy O. Frost and Gail Steketee

Abstract

Although hoarding behavior has been observed for many centuries, the history of scientific research on it spans less than three decades. The chapters in this volume represent the current state of knowledge about hoarding and the disorder associated with it. It is hoped that the information contained here will inspire other researchers to get involved in the search for understanding of this complex problem.

Key Words: hoarding disorder, compulsive hoarding, diagnosis

Introduction

Hoarding has been the subject of a tremendous amount of media interest in recent years. Reality TV shows on the topic have made it a familiar one to nearly everyone. Perhaps the most remarkable aspect of all the attention being paid to hoarding is the virtual absence of research on it prior to 1993. Following publication of the first paper on hoarding in 1993 (Frost & Gross, 1993) and a subsequent paper outlining a formal definition and cognitive-behavioral model of hoarding (Frost & Hartl, 1996), we have felt like passengers on a runaway train. Right away we were inundated with requests from health departments, elder service agencies, housing officials, and even fire departments for help with hoarding problems that they had no idea how to address. Our research and clinical efforts could not keep up with the demand for information and assistance. Absent from these interested parties were mental health professionals. In the early 1990s we were the only group studying hoarding. Now there are dozens of research labs and clinics around the world doing research on hoarding. The approval of a new diagnosis of hoarding disorder in the DSM-5 is a tribute to the extensive

research and empirical evidence accumulated by these labs.

Although much remains to be done to better understand hoarding symptoms, features, and underlying causal factors, this field of study has come a remarkable distance in just two decades. This is the first volume that details the empirical research on hoarding up to the present time. We have little doubt that this research will continue and will provide new insights into this unusual problem. That this book is even possible is a testament to the fascinating nature of human attachment to objects and how apparently normative phenomena can become pathological.

Structure of the book

This book consists of 27 chapters organized into 2 introductory chapters; 9 chapters on phenomenology, epidemiology, and diagnosis; 5 chapters on etiology and conceptual models; 7 chapters on assessment and intervention methods; 2 chapters on special populations; and a final concluding chapter. We have allowed some overlapping content in a number of the chapters that we hope reinforces understanding of this problem from multiple

perspectives without being overly duplicative. Most chapters refer to relevant information contained in other chapters in this volume.

Content of chapters

The introductory chapters set the stage for using this book and for understanding hoarding in a broad perspective. In this chapter (chapter 1), we outline the content of each chapter and provide an overview for the book. Chapter 2 details references to hoarding in historical and literary documents. Penzel reviews early accounts of hoarding in history, as well as the treatment of hoarding in literature all the way back to Dante Alighieri in the fourteenth century.

The phenomenology, epidemiology, and diagnosis section is lengthy, as a great deal of research has examined these issues. Steketee and Frost's chapter 3 begins this section by describing hoarding and detailing research on its phenomenology. A careful understanding of the basic phenomenology is critical because hoarding consists of a complex set of problem behaviors, many of which differ from normal behavior only in intensity. At the heart of hoarding is the question of what it means to own something, and extreme levels of ownership, such as hoarding and excessive collecting, demonstrate deviations from the norm. Belk's chapter 4 covers theory and research regarding ownership and collecting behaviors as they relate to or differ from hoarding symptoms.

In chapter 5, Mataix-Cols focuses on diagnostic questions that underlay the development of the current DSM-5 diagnosis, including the complexities inherent in determining features that were included, referenced, or excluded by the American Psychiatric Association committee. Whereas hoarding disorder defines a distinct disorder, hoarding behaviors are heterogeneous and can appear as a part of other disorders. In chapter 6, Pertusa and Fonseca examine hoarding behaviors that occur in other disorders, such as Prader-Willi syndrome and schizophrenia, and how these symptoms compare with those observed in hoarding disorder. Complicating our understanding of hoarding is the frequency with which other disorders appear along with it. Although it has historically been linked to obsessive-compulsive disorder (OCD), other disorders are equally if not more frequently associated with hoarding. Wheaton and Van Meter's chapter 7 reviews the research on comorbid conditions found in hoarding disorder, including mood and anxiety disorders, as well as personality features.

Accumulating evidence suggests that the vast majority of people with hoarding disorder acquire excessively. In chapter 8, Frost and Müller review aspects of acquisition in hoarding, including compulsive buying, the excessive acquisition of free things, and kleptomania. The cognitive-behavioral model of hoarding posited deficits in the processing of information as central features of hoarding. Timpano, Smith, Yang, and Çek's chapter 9 provides a detailed review of now-multiple studies of information-processing deficits in hoarding. Kellett and Holden (chapter 10) describe one of the most interesting features of hoarding: emotional attachment to objects. This central feature has been studied in a variety of ways, although our understanding of this relationship to objects among people who hoard remains limited at this time.

Although there is little evidence for different subtypes of hoarding disorder, one exception may be the collecting of a large number of animals. Despite the evident public health and legal challenges provoked by animal hoarding behavior, very little is known about it. Ayers and Patronek's chapter 11 describes animal hoarding and reviews the limited empirical literature on this problem. Finally in this section, Norberg and Snowden (Chapter 12) describe a problem that plagues a subset of people with clinical hoarding disorder—severe domestic squalor. Severely squalid living conditions often require community intervention because of the health and safety dangers.

Section 3 consists of chapters on the etiology of hoarding and conceptual models for understanding it. A surprising amount of theoretical and conceptual work has been done in fields spanning biological and psychosocial models to explain hoarding. Five chapters cover research and theory in this area. These include a review of genetics and family models of hoarding disorder in chapter 13 by Hirschtritt and Mathews, whose work on the genetics of hoarding is well known. Slyne and Tolin's chapter 14 articulates what we know so far about the neurobiology of hoarding disorder. Preston's chapter 15 examines animal models for hoarding derived from research on food hoarding and nesting behaviors and their underlying neurobiology. In chapter 16, Kyrios reviews psychological models of hoarding, including emotional, behavioral, and cognitive features associated with hoarding. Finally, in chapter 17, Vickers and Preston review what the field of behavioral economics can tell us about hoarding and how people can come to place such high value on possessions.

The fourth section of the book reviews assessment and intervention strategies in hoarding. Considerable research has been done to develop reliable and valid measures of hoarding that have advanced the study of hoarding in a variety of contexts. This is a critical development, as much of the early work on hoarding has relied on assessments that were less than adequate. Given the public health, family, and personal burdens of hoarding, it is also not surprising that interventions designed to resolve this problem have been developed and studied, although this work is still in its infancy. Grisham and Williams's chapter 18 provides a comprehensive review of methods for assessing hoarding and related phenomena across multiple symptom domains and methods (self-report, clinician/observer rating, pictorial assessment of clutter). Recommendations for appropriate ways of assessing hoarding are included.

Many professionals who work with hoarding individuals comment on patients' difficulty in recognizing the problem and the apparent lack of motivation to do anything about it. Crucial to our understanding of how to intervene is Worden, DiLoreto, and Tolin's chapter 19 on insight and motivation, which are central problems for all forms of treatment of hoarding disorder. Steketee's chapter 20 on individual cognitive and behavioral treatment (CBT) for hoarding describes the early attempts to apply classic exposure and response prevention for OCD to hoarding. Recently developed CBT methods specialized for hoarding are reviewed in detail. These have improved the outlook for successful intervention, but much more controlled research remains to be done. Additional work exploring other treatment modalities is sorely needed. In chapter 21, Muroff reviews the evidence for alternative treatment methods for delivering CBT, including web-based treatment, group treatment, and facilitated self-help, the latter two methods showing especially promising outcomes so far. The early indications were that pharmacotherapy was not particularly effective for treating hoarding. However, Saxena's chapter 22 takes a closer look at recent findings that appear more promising than earlier thought, although much research is still needed in this area. An important development in the intervention arena concerns how to help family

members intervene with their hoarding loved one. Tompkins and Hartl outline their harm reduction approach to working with families dealing with hoarding problems in chapter 23. Finally, Bratiliotis and Woody's chapter 24 describes community interventions for hoarding, a particularly challenging area of study given the involuntary nature of many cases of hoarding that come to community attention for public health and safety reasons.

A brief section on hoarding in special populations reviews the limited research in selected populations. Park, McGuire, and Storch review findings related to hoarding in children in chapter 25. Ayers, Najimi, Howard, and Maddox describe research on hoarding symptoms, features, and interventions for older adults in chapter 26. They point to the special needs of this population who face physical and cognitive decline that interacts with hoarding symptoms and affects interventions.

In the final chapter (chapter 27), we (Steketee & Frost) provide an overview of where the field of hoarding research has come and the gaps that remain to achieve a greater understanding of hoarding symptoms and hoarding disorder. We detail what we believe are important next steps across the multiple disciplines represented in this book to advance our ability to provide successful treatment and prevention efforts for this impressively pervasive problem in our culture.

Concluding remarks

Having been involved with this research from its beginnings, it has been a distinct pleasure to see young researchers take up the challenge of this complex problem. The relative speed and ease with which this book was assembled attests to the abilities and spirit of collaboration among our colleagues, who have been remarkable in their commitment to this research and to writing to educate us all. We hope their work in this volume forms the catalyst for a new generation of scholars to study this most interesting disorder.

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- Frost, R. O., & Hartl, T. L. (1996). A cognitive-behavioral model of compulsive hoarding. *Behaviour Research and Therapy*, 34, 341–350.

Hoarding in History

Fred Penzel

Abstract

Little recorded evidence for pathological hoarding exists prior to the twentieth century. “Hoarding” has meant different things across different cultures and epochs. Beginning in prehistoric times as a way to secure basic necessities, it has progressed as a way to protect valuables from unrest and crime. Hoarding became enshrined in mythology, and in classical times, hoarders were viewed as misers. The early Catholic Church labeled acquisitiveness as sinful. Hoarding entered the world of literature via the works of Dante and Renaissance drama and continued through the nineteenth century. At this point, social and behavioral scientists began to study hoarding, characterizing it as a mental illness. In the early twentieth century, Freud and others sought its origins within the psyche. Modern media also served to raise public awareness of the problem. In the last decade of the twentieth century, scientific scrutiny was finally applied to hoarding.

Key Words: hoarding, misers, saving, collecting, greed

Examining the historical aspects of compulsive hoarding is a lot like trying to make a patchwork quilt. You basically have a lot of disparate scraps to work with, and then you have to try to assemble them into what you hope will look like some kind of meaningful pattern. With a quilt, however, you have a lot more leeway with your scraps and do not necessarily have to make them into a coherent narrative. Although the historical record has some limited references to hoarding, not all types of hoarding are the same, nor has hoarding meant the same thing across different cultures and epochs. To compound all this, we have practically no real historical evidence prior to the twentieth century for, or accounts of, what we now know to be pathological hoarding. Clearly, finding cohesive meaning in all this is not an easy task.

According to the *Online Etymological Dictionary* (2012), the word *hoard* derives from the Old English *hord*, whose meaning is “treasure, valuable stock or store.” In Proto-Germanic, it meant *hidden*

treasure. The online version of the *Merriam-Webster Dictionary* (2012) somewhat similarly defines *hoard* as “a supply or fund stored up and often hidden away.”

The earliest evidence of hoarding takes us back to prehistoric times and takes the form of caches of objects uncovered by archaeologists. It would appear that our early hunter-gatherer ancestors took to hiding supplies of various necessities as a way of securing them from other bands of humans or animals. The oldest discovered hoards, to date, are those of the Mesolithic hunter-gatherers of Europe and those of the Paleoindian period in the Americas, dating back about 10,000 years. The European hoards appear to have consisted of such things as perishable food items, human remains, and items of apparent value, including Baltic amber beads. Later, hoards from this era and from the later Neolithic period were seen to contain weapons and body ornaments. These collections may have been signs of the origins of the idea of

possessions being examples of personal wealth and status. Possibly owing to the lack of permanent housing at this time, hoards were often buried in ceramic vessels. Hoards thus far discovered in the Americas seem to have been created by toolmakers, as they contained stone tools in various stages of completion.

As civilization gradually developed and spread, so did hoarding. It appears to have taken on a variety of forms and purposes among different cultures. For instance, we see hoards of religious objects in Mesopotamia, dating to about 5,000 years ago, the most notable being the Asmar Sculpture Hoard. At around 3,000 years ago, we see hoards of mummies being created in Egypt, such as that at Deir el Bari, most likely to protect them from looters. In eighth century B.C. China during the Zhou Dynasty, bronze vessels were hoarded during unstable times when residents were forced to abandon their homes. A number of Iron Age hoards found in Britain ranging from the eighth to the first century B.C. reveal the caching of hundreds and even thousands of coins as well as articles of gold jewelry (List of Iron Age hoards in Britain, n.d.).

In the time of the ancient Greeks, we find references to hoarding taking place in their mythological world. Hoarding seems to have been largely the occupation of dragons, which seem to have been appointed by the gods as protectors of collections of golden objects. The word *dragon*, in fact, is derived from the Greek word *drakon*, which translates as “the watcher.” This in turn was derived from the word *drakein*, which means “to stare.” Most notable among the Greek dragons were the Dragon of the Golden Fleece (also known as the Colchian Dragon), a sleepless serpent who resided in the sacred grove of the god Ares, and the Dragon of the Golden Apples (the Hesperian Dragon), who had 100 heads and was located in the sacred grove of the Hesperides. Their track records as guardians, however, do not appear to have been very successful. The former was drugged into sleeplessness and then robbed of the fleece by the mythical hero Jason, while the latter was slain by the demigod Heracles, who stole the apples as his Eleventh Labor. Beyond mythology, dragons were believed by some contemporary writers to actually live in the mountains of India. Some traditions also ascribe the same type of treasure guardianship to other creatures. According to Flavius Philostratus in his work *The Life of Apollonius of Tyana* (1921 edition),

And the griffins of the Indians and the ants of the Ethiopians, though they are dissimilar in form, yet, from what we hear, play similar parts; for in each country they are, according to the tales of poets, the guardians of gold, and devoted to the gold reefs of the two countries. (Vol. II, book VI.I., p. 5)

Beyond these fantastic tales of hoarding, the Greek and Roman periods also saw a considerable amount of hoarding of personal wealth. As in other periods, there would appear to be no single reason for the existence of such stores of gold, silver, and bronze coins. War, political uncertainty, social upheaval, the prevalence of crime, and the lack of a banking system might all be possible explanations. In Britain alone, at least 1,200 ancient coin hoards have been discovered to date. Despite the prevalence of these behaviors, it would appear that in classical times, stinginess and miserliness were viewed as undesirable character traits. In his study of character, aptly titled *The Characters*, published around 319 B.C., Theophrastus, a student of Aristotle, identified 30 different negative character types. He stated that the purpose of this work was to catalogue human nature. These types were represented by their most salient trait. The sketches included *The Penurious Man* (Mikrologia) and *The Avaricious Man* (Aneleutheria; 1902 edition). These descriptions might be regarded as among the very beginnings of psychology, as well as the idea of stock characters that would later make their appearance in drama and literature. During the time of the Romans, the comic playwright Plautus portrayed miserly characters, such as those described by Theophrastus (1916 edition). One such miserly character was Euclio, in Plautus’ play *A Pot of Gold*, who is described by Pythodicus, his slave, and Anthrax, his cook:

PYTHODICUS: That’s a fact. Judge for yourself. Why,

I tell you he begins bawling for heaven and earth to witness that he’s bankrupt, gone to everlasting smash, the moment a puff of smoke from his beggarly fire manages to get out of his house. Why, when he goes to bed he strings a bag over his jaws.

ANTHRAX: What for?

PYTHODICUS: So as not to chance losing any breath when he’s asleep.

ANTHRAX: Oh yes! And he puts a stopper on his lower windpipe, doesn’t he, so as not to chance losing any breath while he’s asleep?

PYTHODICUS: (*ingenuously*) You should believe me,

I believe, just as I should believe you.

ANTHRAX: (*hurriedly*) Oh, no, no! I do believe, of course!

PYTHODICUS: But listen to this, will you? Upon my word, after he takes a bath it just breaks him all up to throw away the water. (Plautus, Trans. 1916, Act 2. scene 4)

While it might not exactly qualify as genuine hoarding, it is interesting to note the existence of what may have been one of the earliest and most famous information hoards—the famous Library of Alexandria, in Egypt. Founded during the reign of Ptolemy I sometime around 300 B.C., the Library may have comprised the largest collection of scrolls ever amassed in the ancient world. The aim of this collection was to reputedly gather together the sum total of the world's knowledge. It is said that at its height, the library contained 750,000 scrolls, although no one knows exactly the ultimate size of the collection. Many famous scholars, including such early luminaries as Euclid and Archimedes, were said to have studied there. Unfortunately, the library was ultimately destroyed (it is not exactly clear as to how or when) and, with it, much of the collected learning of the ancient world.

Moving on to the medieval age, it appears that the ancient tales of hoards guarded by dragons carried over into these times, probably via oral tradition, but also due to the survival of the writings of Pliny the Elder (1949–1954 edition) and others. One of the best known ancient tales of a hoard guarded by a dragon can be found in *Beowulf*, the best known Norse saga. A prose summarization of a part of the saga from the work of D. L. Ashliman (2010) gives us a sense of this portion of the story:

A great treasure lay hidden in an upland barrow, but all those who had buried it died before bequeathing it to their surviving kin. As they are wont to do, a malicious dragon found the hoard and assumed possession of it. For three hundred winters he jealously guarded the treasure.

Then one day a thief broke into the dragon's hoard and stole a golden cup. He was not a willful thief, but rather a runaway slave who had escaped a cruel master. Discovering the treasure by chance, the thief took a golden cup, hoping to pacify his master with it.

Discovering his loss, the flaming dragon emerged from his lair to seek revenge.

The monster spewed forth flames and destroyed many dwellings by fire, including Beowulf's home, the best of halls. (Part 3:32)

One other well-known Norse tale is the *Völsunga Saga*, in which one of the main characters, Sigurd, slays the dragon Fafnir, who guards a golden treasure. This story was later adapted in the nineteenth century by Richard Wagner into his opera trilogy *Der Ring des Nibelungen*. In their everyday lives, the Vikings were themselves prodigious hoarders of silver in the form of coins, ingots, jewelry, etc. During a period ranging from 800 A.D. through 1150 A.D., they created hundreds of caches of such items all over northern Europe, Britain, and Scandinavia (Hirst, n.d.).

Some have pointed to the Bible as a source of commentary about compulsive hoarding; however, this may not exactly be an accurate interpretation. What can actually be found in the Bible are injunctions against greed and covetousness, which, of course, have nothing to do with hoarding as a disorder. In the year 590 A.D., Pope Gregory I codified a list of *Seven Deadly Sins*, one of which was greed. This sin has also gone by the name of avarice. There are precedents for this being identified as a sin in the Bible. Some notable examples of biblical injunctions against this sin (the first from the Old Testament and the next two from the New Testament) include:

10 Whoever loves money never has money enough; whoever loves wealth is never satisfied with his income. This too is meaningless.

11 As goods increase, so do those who consume them. And what benefit are they to the owner except to feast his eyes on them? (Ecclesiastes 5:10–11 New International Version)

19 “Do not store up for yourselves treasures on earth, where moths and vermin destroy, and where thieves break in and steal.

20 But store up for yourselves treasures in heaven, where moths and vermin do not destroy, and where thieves do not break in and steal.

21 For where your treasure is, there your heart will be also. (Matthew Chapter 6:19–21 New International Version)

15 Then he said to them, “Watch out! Be on your guard against all kinds of greed; life does not consist in an abundance of possessions.”

16 And he told them this parable: “The ground of a certain rich man yielded and abundant harvest.

17 He thought to himself “What shall I do? I have no place to store my crops”

18 “Then he said, “This is what I’ll do. I will tear down my barns and build bigger ones, and there I will store my surplus grain

19 And I'll say to myself "You have plenty of grain laid up for many years. Take life easy; eat drink and be merry."

20 But God said to him, "You fool! This very night your life will be demanded from you. Then who will get what you have prepared for yourself?"

21 This is how it shall be with whoever stores things up for themselves but is not rich toward God." (Luke Chapter 12:15–21 New International Version)

As a further commentary on these biblical principles, the German Lutheran pastor Dietrich Bonhoeffer (1906–1945) stated, in his book *The Cost of Discipleship* (1959),

Earthly goods are given to be used, not to be collected. In the wilderness God gave Israel the manna every day, and they had no need to worry about food and drink. Indeed, if they kept any of the manna over until the next day, it went bad. In the same way, the disciple must receive his portion from God every day. If he stores it up as a permanent possession, he spoils not only the gift, but himself as well, for he sets his heart on accumulated wealth, and makes it a barrier between himself and God. Where our treasure is, there is our trust, our security, our consolation and our God. Hoarding is idolatry. (p. 175)

Dante Alighieri (c1265–1321), the famed Italian author and poet, seems to have incorporated Pope Gregory's list of sins into his well-known work, *The Divine Comedy* (1995 edition). In Canto VII of *Inferno*, the author, accompanied by his guide, the spirit of the poet Virgil enters the fourth of nine circles of hell, a place specifically reserved for *hoarders* and *wasters*. These souls at first appear to be polar opposites of each other, with the former group having saved up large quantities of money they never spent, and the latter having wasted and spent every cent they could lay their hands on. It has been pointed out, however, that both can be seen as similar, as their love of money knew no moderation in life, and turned them away from the light of God. Ironically, each group is used to punish the other. Their punishment is portrayed as their having to roll giant weights at each other, moving in opposite directions around this circle, and then smashing them together as one group shouts, "Why do you hoard?" while the other shouts, "Why do you squander?"⁷ Following this, they would then roll the weights back again and clash again on the other side of the circle in a never-ending cycle of conflict and torment.

It is well known that the Renaissance was marked by a revived interest in classical works and culture. As a part of this, the stock characters seen in Roman comedies began to make their appearances in forms of popular entertainment. The old miser was, of course, one of these. Pantalone, as he was known, routinely appeared in the form of sixteenth-century Italian street theatre known as the *Commedia dell'Arte* (Nicoll, 1987). Pantalone was commonly played as an elderly, stingy, and wealthy Venetian merchant, who stumbled about the stage in a decrepit state. He was frequently the butt of many different kinds of tricks, and was considered a pivotal character in most productions of the time.

Other characters personifying greed and avarice also made their appearance in Renaissance literature and drama, carrying on this tradition. Tudor England was a source of many of these characters, some of whom have endured as icons into the present. The miserly character Malbecco in Book III of Edmund Spenser's *The Faerie Queen* is seen to choose his money over his wife, only to have it subsequently stolen. Shakespeare's iconic Shylock in *The Merchant of Venice* (written between 1596 and 1598 [2010 edition]) is another famous miser and moneylender whose love of money renders him unable to choose whether it or his daughter is of more importance to him. *Volpone*, a play by Ben Jonson produced in 1606 (2010 online edition), gives us the character for whom the play is named, a childless Venetian nobleman who has amassed a fortune through cunning dealings. The opening lines of the play portray his hoard of treasure and his feelings about it.

VOLP: Good morning to the day; and next,
my gold:

Open the shrine, that I may see my Saint.

[Mosca withdraws the curtain, and discovers piles
of gold, plate, jewels, etc.]

Hail the world's soul, and mine! more glad than is
The teeming earth to see the long'd-for sun
Peep through the horns of the celestial Ram,
Am I, to view thy splendour darkening his;
That lying here, amongst my other hoards,
Shew'st like a flame by night; or like the day
Struck out of chaos, when all darkness fled
Unto the centre. O thou son of Sol,
But brighter than thy father, let me kiss,
With adoration, thee, and every relick

Of sacred treasure, in this blessed room. (Jonson,
Act 1, Scene 1.1)

In the succeeding era, during the time of Louis XIV, the playwright Molière presented another of theatre's famous hoarders of wealth, Harpagon, in his play *L'Avare* (The Miser) (2000 edition). First produced in 1668, it portrays this character as a wealthy moneylender and penny-pincher, whose two children live for the day when they can escape his household and marry the spouses of their choice.

Moving ahead to the world of eighteenth- and nineteenth-century literature, we see the further development of the miser/hoarder character, who makes an appearance in the works of a host of famous authors. The first worth mentioning is titled *Of The Use of Riches, An Epistle To the Right Honourable Allen Lord Bathurst*, a moral essay by Alexander Pope, published in 1733 (1903 edition). One section describes an old miser named Cotta, who lives in a mansion overgrown with weeds which he dines on as a cheap source of sustenance.

In 1833, Honoré de Balzac published his novel *Eugénie Grandet* (2009 edition), whose main theme was one man's miserly behavior and how it was passed along to his daughter. Felix Grandet is the miser in question, and we are told how he acquired wealth through his canny business dealings as well as a series of inheritances. He is obsessed with obtaining and holding on to money, and he and his family reside in a house that is in a state of disrepair due to his reluctance to spend the money to fix it. Both Eugenie and a servant come close to severely injuring themselves due to a staircase that has become hazardous to traverse. They buy no food, obtaining what they eat only through what is bartered in lieu of cash payments on debts. Their linens are repaired by hand by Eugenie and her mother. Fires could only be lit between the start of November and the end of March. Eugenie must even pilfer candles to be able to do her personal sewing. By the end of the novel, his daughter ends up a wealthy widow, facing an empty existence, alone with her money. Greed is presented as an evil that can be passed along and result in the ruin of a family.

Another miser found in literature of the period, is the character Plyushkin, in Nikolai Gogol's novel *Dead Souls* (1996 edition). Published in 1842, it was meant to be a commentary on contemporary Russian society. He is one of the only miser characters who is also portrayed as a compulsive hoarder, collecting anything that crosses his path.

... he walked about the streets of his village every day, looked under the little bridges and stiles,

and whatever he came across—an old shoe sole, a woman's rag, an iron nail, a potsherd—he carried off and added to the pile that Chichikov had noticed in the corner of the room. "The fisherman's off in pursuit again!" the muhzikos would say, when they saw him going for his booty. And, indeed, after him there was no need to sweep the streets: if a passing officer happened to lose a spur, the spur would immediately be dispatched to the famous pile; if a woman started mooning by the well and forgot her bucket, he would carry off the bucket. . . . In his room he picked up whatever he saw on the floor—a bit of sealing wax, a scrap of paper, a feather—and put it all on the bureau or the windowsill. (p. 82)

To consummate a business deal with the novel's protagonist, he instructs a servant to serve and scrape the mold off a cake he was given several years previously. While engaged in such trivia, he is unable to manage his own estate, where wheat rots on the ground instead of being harvested. To this day in Russia, compulsive hoarding is referred to as *Plyushkin symptom* or *Plyushkin syndrome*.

Of course, no discussion of misers and hoarders would be complete with the mention of Charles Dickens' Ebenezer Scrooge, whose name became a catchword for individuals of this type. This character made his appearance as the main character in the novella *A Christmas Carol*, published in 1843. The story describes the transformation of Scrooge, who is said to be, "a squeezing, wrenching, grasping, scraping, clutching, covetous, old sinner!" (Stave One). He shuns the idea of Christmas, and shuns the notion of charity. Only the visitation of a group of spirits and a warning of his fate in the afterlife can bring about a change of heart in this character.

Dickens also portrayed a hoarder as a character in *Bleak House*, one of his earliest novels, published in 20 installments between 1852 and 1853. The character in question is named Krook, an illiterate rag and bottle merchant who also collects and compulsively hoards old legal papers. His shop is described in Chapter 5 in the following terms,

Everything seemed to be bought, and nothing to be sold there. In all parts of the window, were quantities of dirty bottles: blacking bottles, medicine bottles, ginger-beer and soda-water bottles, pickle bottles, wine bottles, ink bottles: I am reminded by mentioning the latter, that the shop had, in several little particulars, the air of being in a legal neighbourhood, and of being, as it were, a dirty hanger-on and disowned relation of the law. A little way within the shop door, lay heaps of old crackled

parchment scrolls and discoloured and dog's-eared law-papers. I could have fancied that all the rusty keys, of which there must have been hundreds huddled together as old iron, had once belonged to doors of rooms or strong chests in lawyers' offices. The litter of rags tumbled partly into and partly out of a one-legged wooden scale, hanging without any counterpoise from a beam, might have been counsellors' bands and gowns torn up. One had only to fancy, as Richard whispered to Ada and me while we all stood looking in, that yonder bones in a corner, piled together and picked very clean, were the bones of clients, to make the picture complete. (Chapter 5)

Of his premises (in the same chapter), Krook, himself, relates,

"You see I have so many things here," he resumed, holding up the lantern, "of so many kinds, and all, as the neighbours think (but they know nothing), wasting away and going to rack and ruin, that that's why they have given me and my place a christening. And I have so many old parchments and papers in my stock. And I have a liking for rust and must and cobwebs. And all's fish that comes to my net. And I can't abear to part with anything I once lay hold of (or so my neighbours think, but what do they know?) or to alter anything, or to have any sweeping, nor scouring, nor cleaning, nor repairing going on about me." (Chapter 5)

He turns out to be a pivotal character in the plot, as papers he has hoarded turn out to be a key to resolving the legal case that is at the heart of the story.

As in Dickens' work, George Eliot's novel *Silas Marner* features a miser (for whom the book is titled) and hoarder of money who eventually finds redemption. The novel, published in 1861 (1907 edition) tells the tale of a weaver falsely accused of theft, who resettles in another town and who lives only for his work and the gold hoarded from his earnings. With regard to his money,

the money not only grew, but it remained with him. He began to think it was conscious of him, as his loom was, and he would on no account have exchanged those coins, which had become his familiars, for other coins with unknown faces. He handled them, he counted them, till their form and colour were like the satisfaction of a thirst to him; but it was only in the night, when his work was done, that he drew them out to enjoy their companionship. He had taken up some bricks in his

floor underneath his loom, and here he had made a hole in which he set the iron pot that contained his guineas and silver coins, covering the bricks with sand whenever he replaced them. (pp. 27–28)

Ultimately, he finds his way back and has his faith restored through the love of an abandoned child he takes into his home.

One further avaricious literary character from this period is Ebenezer Balfour (another miserly Ebenezer), in Robert Louis Stevenson's *Kidnapped*, published in 1886 (online edition). He is the evil grasping uncle of the book's main character, David Balfour, who inhabits an unfinished and forbiddingly ruined stately home. He is described as "A mean, stooping, narrow shouldered, clay-faced creature" (pp. 28–29), which certainly seems to match the stereotype of miserly characters. He wastes no time in trying to murder David in order to steal his inheritance, and when that fails, pays to have him kidnapped and sent to sea. At the end of the novel, following many plot twists, Ebenezer is confronted and David is given his rightful due.

Even the famous detective Sherlock Holmes may have been somewhat of a compulsive hoarder. In "The Adventure of the Musgrave Ritual," by Sir Arthur Conan Doyle, published in *The Strand Magazine* in 1893 (1970 edition), we have some evidence to this effect (*The adventure of the Musgrave ritual*, n.d.). According to Holmes' housemate and companion Dr. Watson,

Our chambers were always full of chemicals and of criminal relics, which had a way of wandering into unlikely positions, and of turning up in the butter-dish, or in even less desirable places. . . . He had a horror of destroying documents, especially those which were connected with his past cases, and yet it was only once in every year or two that he would muster energy to docket and arrange them—Thus month after month his papers accumulated, until every corner of the room was stacked with bundles of manuscripts which were on no account to be burned, and which could not be put away save by their owner. (Vol. 1, p. 386)

In observing the ways hoarders and misers were portrayed in nineteenth-century literature, it is interesting to note that something significant seems to have changed in contrast to all previous eras. Prior to Balzac, these types of individuals were seen to amass great amounts of wealth and possessions, but in no cases was this behavior shown to have any impact on their living conditions. In this new era we now see homes in serious disrepair and conditions

of squalor, as well as clutter and disorganization. This trend would seem to begin with the dangerously rundown condition of the Grandet family home and would continue with Plyushkin's large collection of found useless or discarded objects, Krook's filthy and disorganized shop full of junk, and Sherlock Holmes' rooms stuffed with hoarded papers. One can only speculate at what it was that led to this new view of hoarding. One possible explanation might be that the rise of middle class readership led to a greater interest in the portrayal of domestic life together with a stylistic trend toward greater realism that such readers could relate to. Perhaps being exposed to more realistic portrayals of squalor allowed these readers to affirm and feel more secure in their own domestic values.

At about the same time nineteenth-century readers were entertaining themselves with stories that portrayed misers and hoarders, social theorists and behavioral scientists were starting to describe and speculate about the causes of not only hoarding but such behaviors as consumerism, consumption, and the accrual of material possessions. Possibly the earliest work to discuss any form of hoarding was published in 1809 by Dr. John Ferriar, a physician at the Manchester Royal Infirmary. In the title of his work, *The Bibliomania: An Epistle, to Richard Heber, Esq.* (1809), Ferriar coined a term that he applied to extreme book collecting. It opens with the lines,

*What wild desires, what restless torments seize
The hapless man, who feels the book disease.*
(lines 1–2)

One particularly notable case of book hoarding was seen in Sir Thomas Phillipps (1792–1872). He amassed over 160,000 books and manuscripts during his lifetime, and portions of this massive collection were still being auctioned off more than 100 years after his death.

William James (1842–1910), the psychologist and philosopher believed that hoarding was instinctual. In his work *The Principles of Psychology* (1893), in the chapter titled *Instinct*, James stated:

The hoarding instinct prevails widely among animals as well as among men.

Going on to discuss misers, he commented,

Now, "The Miser" par excellence of the popular imagination and of melodrama, the monster of squalor and misanthropy, is simply one of these mentally deranged persons. His intellect may in

matters be clear, but his instincts, especially that of ownership, are insane, and their insanity has no more to do with the association of ideas than with the precession of the equinoxes. As a matter of fact his hoarding is usually directed to money; but it also includes anything besides. Lately in a Massachusetts town there died a miser who principally hoarded newspapers. These had ended by filling all the rooms of his good-sized house from floor to ceiling that his living-space was restricted to a few narrow channels between them. . . . Of course there may be a great many "associations of ideas" in a miser's mind about the things he hoards. He is a thinking being, and must associate things; but without an entirely blind impulse in this direction behind all his ideas, such practical results could never be reached. (pp. 424–425)

It appears that with the work of James, excessive hoarding and saving first came to be labeled as a mental illness, or a type of derangement, where formerly it had been regarded as either a quirk, or a character trait.

Around the same time, the sociologist and economist Thorstein Veblen (1857–1929) theorized on why people acted as consumers to acquire things. He coined the term *conspicuous consumption*, which appeared in his book *The Theory of the Leisure Class: An Economic Study in the Evolution of Institution*, published in 1899. Veblen's work on this subject was concerned with the nouveau riche of the late nineteenth century, who spent their wealth on material possessions and the services of others. As the result of the Industrial Revolution, people were now able to purchase a vastly greater variety of goods at affordable prices. This, of course, resulted in the rise of consumerism. In Veblen's view, possessions had both practical purposes, as well as being a means of displaying one's elevated social status for all to see. According to Veblen this latter quality created a continuous cycle of acquisition. He stated,

the tendency . . . is constantly to make the present pecuniary standard the point of departure for a fresh increase of wealth; and this in turn gives rise to a new stand of sufficiency and a new pecuniary classification of one's self as compared with one's neighbors. (Chapter 2)

Concurrent with these theoretical attempts to understand hoarding and acquisition, was the rise of interest in the inner workings of the human psyche. Ascendant among those in this field was Sigmund Freud and his psychoanalytic theories of

human behavior and motivation. Although James observed that hoarders were “mentally deranged,” it was Sigmund Freud, the seminal theoretician of this movement, who attempted to go beyond the idea of instinct by explaining the source of this behavior as psychosexual. In his brief 1908 paper, “Character and Anal Eroticism,” Freud described what he called the *anal character*. This was said to be an individual whose sublimation of feelings of anal eroticism resulted in character traits such as parsimony, rigid orderliness, and obstinacy. Those possessed of such characters were seen as being pathologically fixated at the anal stage of psychosexual development, and that these behaviors were a replacement for withholding and saving one’s own excrement. He added that “parsimony may appear in the exaggerated form of avarice” (p. 294). Freud’s characterization of this personality type persisted for many years, and formed the basis of the classification of obsessive-compulsive personality disorder (OCPD) in the second edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) of the American Psychiatric Association, published in 1968. This description of OCPD actually persisted right through to the publication of the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (DSM-IV-TR; 2000). In this last document, the fifth of eight of the diagnostic criteria for OCPD reads,

is unable to discard worn-out or worthless objects even when they have no sentimental value. (p. 297)

Thus, what began with James in terms of labeling hoarding and saving as aberrant instincts and derangement was now further categorized and explained in terms of mental illness.

Building on the work of Freud in 1918, the psychoanalyst Ernest Jones stated that, “All collectors are anal erotics” (1923). One of the aspects of sublimation that he mentioned in his work was “the impulse to gather, collect, and hoard.” He went on to say that

the objects collected are nearly always typical copro-symbols: thus money, coins (apart from current ones), stamps, eggs, butterflies—these two being associated with the idea of babies—books, and even worthless things like pins, old newspapers, etc. In the same connection may be mentioned the joy in finding or picking up objects of the same sort, pins, coins, etc. and the interest in the discovery of treasure-trove. (p. 697)

A somewhat different perspective on owning and collecting was introduced in 1976 by Erich Fromm, the German psychoanalyst and sociologist, in his book *To Have or To Be?* He explained that the two basic modes of existence were the *mode of having* and the *mode of being*. He went on to say that the difference between the two modes was that of a society centered around persons versus one that was centered around things. According to Fromm (1997),

The having orientation is characteristic of Western Industrial Society, in which greed for money, fame, and power has become the dominant theme of life. (p. 9)

He goes on to elaborate that

In the having mode of existence, my relationship to the world is one of possessing and owning, one in which I want to make everybody and everything, including myself, my property. (p. 68)

He stated that he agreed with Freud’s view of the anal character, and that this was

a person whose main energy in life is directed toward having, saving, and hoarding money and material things, as well as feelings, gestures, words, energy. It is the character of the stingy individual and is usually connected with such other traits as orderliness, punctuality, stubbornness, each to a more than ordinary degree. (p. 68)

He further agreed with Freud that the individual concerned only with having and possessing was neurotic and mentally sick, and went on to say that societies made up largely of anal characters were also sick.

Although it is not clear when the transformation took place, it would seem that over the course of the first half of the twentieth century, the public perception of hoarders shifted from being seen as an eccentricity that made for entertaining stories and plays to one tagged with the stigma of mental illness. It would also seem that the modern media helped give rise to this view, by exposing to view for the first time the excessive and even hazardous nature of hoarding.

A landmark event in the history of hoarding was the notorious case of the Collyer brothers (Bryk, 1999, October 5; Faber, 1947, March 27, April 9, April 19). While they were certainly not the first to live in cluttered squalor as a result of pathological hoarding, they were certainly the most sensationalized example to have occurred up until that time and served to bring this type of behavior into public

view. In this particular case, even though they are generally referred to in the plural, the hoarder in question was Langley Collyer (b. 1885) and not his older brother, Homer. The scale of Langley's hoarding may never have been equaled. Both were raised in Manhattan, were well educated, and came from an old and prominent New York family. Homer worked as an attorney, while it does not appear that Langley ever really pursued a career (Jarvis, 2007). Following the death of their parents in the 1920s, the brothers continued to live in the family home, a three-story brownstone located at 2078 Fifth Avenue (at 128th Street). It would appear that the brothers lived an increasingly isolated existence, even getting to the point of doing without gas, steam heat, telephone service, and even running water, relying instead on kerosene to light their home and cook their food. In 1932, Homer suffered a stroke, which resulted in debilitation and blindness. Langley then devoted himself to the full-time job of nursing his brother back to health. He also devoted himself to filling their home with scavenged materials he collected on nightly forays around Manhattan. It would appear that almost anything he came across was fair game for acquisition. This included newspapers, cardboard boxes, barrels, metal cans, tree branches, scrap metal, and other assorted trash. Langley also arranged the growing collection of boxes and packing cases in interlocking arrangements that concealed a maze of tunnels that only he knew. Langley was said to harbor fears of being burglarized, and there had, in fact, been several attempted break-ins. The home became a sort of fortress for the brothers, with booby-traps constructed of great piles of debris rigged with the aid of trip wires to fall on unsuspecting intruders. During the 1930s many rumors circulated about the brothers, the gist of which was that they were wealthy hermits who occupied a storehouse of wealth and valuable objects. In the ensuing years, the brothers had several run-ins with the city of New York over unpaid taxes and the dilapidated condition of their home and other property they owned. What finally brought the brothers to public attention was a telephone call to the police on March 21, 1947, reporting that there was a dead man in the debris-filled home. The building was so choked with trash and assorted objects that police were at first unable to enter, finally resorting to the use of ladders to gain entry through second-floor windows. What they found was the emaciated corpse of Homer Collyer, in addition to 120 tons of material that included an old generator, parts of a disassembled Model

T Ford, 3,000 books, a boat, and as many as 14 grand pianos. Langley was nowhere to be found; however, on April 8, his body was found crushed to death under a pile of debris he had rigged as a trap for burglars. It appeared that he had died first, and his invalid brother subsequently died of starvation. No great treasure was found. These were not simply the misers of nineteenth-century novels but a whole other phenomenon that the public found difficult to fathom. It is important to note that this was not just a local curiosity; it grew to the proportions of a major media event that made for major newspaper coverage and drew crowds of thousands as the property was cleaned out (Thousands gape at Collyer house, 1947, March 24). The name *Collyer* became a lasting symbol of uncontrolled and pathological collecting and saving and served to raise awareness of compulsive hoarding. Their story has since inspired a number of plays and novels over the ensuing decades.

It would seem that once this problem was released into public consciousness, it became the source of sensational reportage, with stories of extreme hoarding appearing in the news since then. A notable example of this is the case of Edmund Zygfrid Trebus (1918–2002), a Polish national who came to reside in London after World War II (*The Telegraph*, October 4, 2002). He spent decades roaming the streets collecting whatever he came across, and because he never discarded anything, the interior and exterior of his five-bedroom Victorian house had become so filled with trash that he was forced to live in one small corner of the dwelling. His home had neither electricity, running water, nor a working lavatory. As a result, he found himself in frequent difficulties with the local authorities. He was actually featured in a 1991 BBC documentary series titled *A Life of Grime*, which portrayed the day-to-day work of environmental health workers. The film documented his running arguments with these local officials and police officers who came with a court order to clean up the exterior of his home. A total of 515 cubic yards of trash were ultimately removed from his garden, which by 2001 was seen to have filled up again when the BBC came back to do a follow-up special.

With the advent of reality television, this medium now became a major vehicle for the portrayal of hoarding to the public. The television series *Hoarders* premiered in 2009 on the A&E channel in the United States and was soon followed by another titled, *Hoarders: Buried Alive*, produced by the TLC channel. These shows focused on attempts by mental

health professionals to rescue sufferers from their abominable living situations and brought the reality of the disorder into the homes of millions of people who heretofore had no contact with psychiatric disorders of this type or severity. What may have started out as a form of reality-show entertainment seems to have evolved into a type of consciousness-raising tool for pathological hoarding.

It was not until the 1990s that serious attempts were first made at systematically studying the phenomenon of hoarding. Until that time, most published material on the behavior was speculative and not based on any real empirical data. Hoarding, when not appearing to be connected to OCPD, was assumed to be a subset of obsessive-compulsive disorder (OCD). This most likely resulted from the fact that these behaviors were sometimes seen to be performed in connection with the types of indecision and magical thinking seen to accompany many forms of OCD. The first study to systematically study and define hoarding was published in 1993 by Frost and Gross. Hoarding was defined by these authors as “the acquisition of, and failure to discard, possessions which appear to be useless or of limited value.” In 1996, Frost and Hartl published an article that proposed the first cognitive-behavioral model of the underpinnings of hoarding behavior. In this article, hoarding was “conceptualized as a multifaceted problem stemming from: (1) information processing deficits; (2) problems in forming emotional attachments; (3) behavioral avoidance; and (4) erroneous beliefs about the nature of possessions.” Prior to 1996, there had been fewer than 10 studies published on the subject of hoarding. Once interest in the subject had been sparked, a flow of studies followed, with more than 20 studies per year being published by 2009.

Understanding of the disorder, itself, has now evolved to the point where the new classification system of mental disorders of the American Psychiatric Association, the DSM-5, will finally give the problem its own separate classification (i.e., Hoarding Disorder). This new categorization will set hoarding apart from OCPD and OCD. Perhaps this reorganization will eventually lead to new avenues of treatment and research.

It is clear to see that throughout history, hoarding has meant many different things to many different people and their cultures. What began in prehistory as a way of protecting scarce resources gradually evolved into what was seen as a distinct character type, a proscribed sinful act, then as an eccentricity that served as a source of amusement,

and finally as a clear pathology—something to be treated and hopefully remediated. It would seem to have evolved in parallel with our knowledge and understanding of human behavior and the motivating forces behind it. Perhaps with the evolving science of genetics our understanding of what to many is still a baffling human phenomenon, may proceed to yet another level.

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PART 2

Phenomenology,
Epidemiology, and
Diagnosis

Phenomenology of Hoarding

Gail Steketee and Randy O. Frost

Abstract

Hoarding is characterized by excessive acquisition, difficulty discarding or letting go of objects, disorganization, and resulting clutter. Hoarding symptoms onset during childhood or adolescence and continue in an increasing and chronic course, affecting approximately 4% to 5% of adults. Adults who hoard tend to be unmarried and living alone and may have lower incomes; few gender effects have been identified. Associated features include difficulty with decision making, as well as perfectionism, emotional sensitivity, and strong attachment to objects. Insight is often low, causing problems for treatment and family intervention. Hoarding can cause serious physical (safety, health) and functional (financial, housing, employment) impairment that adversely affects the individual, family members, and the community. Hoarding has been associated with childhood adversity and various stressful life experiences, but not specifically post-traumatic stress disorder. These symptoms and features are reviewed, noting other chapters in this volume that provide more detail regarding various features.

Key Words: hoarding symptoms, hoarding features, acquisition, difficulty discarding, clutter

Phenomenology of Hoarding *Historical Review of Hoarding Features*

The history of research on hoarding is relatively short. Early in the twentieth century, descriptions of hoarding behavior appeared as an outgrowth of psychoanalytic theorizing about an anal personality characterized by the three features of obstinacy, orderliness, and parsimony (Freud, 1908). Freud emphasized the retention of feces in his theorizing, whereas Jones (1912) suggested that the parsimony leg of the triad could be represented by the hoarding of possessions. Other early theorists such as Fromm (1947) and Salzman (1973) believed hoarding represented an attempt to exert control over one's environment to create a sense of safety and security. The idea that hoarding was an expression of the parsimony leg of the anal triad led to its inclusion as one of several diagnostic criteria for Axis II obsessive-compulsive personality disorder (OCPD) in the *American Psychiatric Association's (APA) Diagnostic*

and Statistical Manual of Mental Disorders (DSM) (Frost & Steketee, 1998). In DSM-IV criteria for OCPD, hoarding was defined as an inability "to discard worn-out worthless objects even when they have no sentimental value" (APA, 2000, p. 729).

Although a few investigations of hoarding behavior have relied on this definition (e.g., Samuels et al., 2008a), research on the phenomenology of hoarding suggests that it is inadequate on several counts. First, the OCPD criterion limits behavior to discarding, but people who hoard report difficulties letting go of possessions by any means, including selling, donating, recycling, or lending (Mataix-Cols et al., 2010). Second, the description of objects as "worn-out or worthless" is not supported by research on the nature of saved items. Rather, people who hoard appear to collect and save all types of objects, including closets full of new clothing never worn (often with original tags attached) and small appliances and purchased items still in their original

wrappings (Frost & Gross, 1993). Accordingly, it appears that those with hoarding problems do not limit their saving only to worn-out or worthless objects. Finally, the OCPD definition suggests that hoarded items have no sentimental value, but considerable research suggests that items are saved for sentimental reasons (see Chapter 10). In fact, saved items are often described with strong personal identification (Steketee, Frost, & Kyrios, 2003) and emotional attachment (Kellett & Knight, 2003). As noted in Chapter 5 in this volume by Mataix-Cols and colleagues, the DSM-5 definition will correct these errors.

Symptoms of Hoarding

Research on hoarding suggests three primary features as well as secondary or associated features described later in this chapter. Frost and Hartl's (1996) original definition of hoarding still stands up well: they identified the following characteristics: "(1) the acquisition of and failure to discard a large number of possessions that appear to be useless or of limited value; (2) living spaces sufficiently cluttered so as to preclude activities for which those spaces were designed; and (3) significant distress or impairment in functioning caused by the hoarding" (p. 341). The vast majority (80% to 100%) of people with hoarding problems engage in excessive acquisition of possessions, often in the form of buying, acquiring free things, and, less often, stealing (see Chapter 8 for a more complete review). The hallmark feature of hoarding is difficulty discarding or letting go of possessions that are not needed or used. Occasionally, this behavior can appear delusional if the item is disgusting or unsanitary (e.g., bodily products, rotting food). The types of things saved appear to be similar to items most people save (Frost & Gross, 1993). The most frequent categories are clothing, paper items (e.g., magazines, newspapers, books), pens/pencils, music and video items, and containers (Pertusa et al., 2008).

People with hoarding problems also report saving items for the same reasons as those who do not hoard (Frost & Gross, 1993). Three reasons are most common: sentimental, instrumental, and intrinsic (Frost & Hartl, 1996). Many people save items because of their sentimental association with important people or events in their life. The difference between hoarding and nonhoarding individuals lies in the number of items that acquire this sentimental attachment and in the intensity of the attachment. For people who hoard, an exceptionally large number of belongings seem to elicit intense

emotions, provoking descriptions of "it feels like part of me" and "getting rid of this would be like losing a piece of my life" (Steketee et al., 2003). Possessions also seem to provide emotional comfort as well as a sense of personal identity that go well beyond what most people report (Hartl et al., 2005; Steketee et al., 2003). In some cases, the objects and the emotions seem to fuse so that the object becomes central to the experience (Kellett & Knight, 2003; see Chapter 10 for a fuller description of emotional attachments in hoarding).

Some items are saved because they are perceived as useful. Again, the difference between hoarding and nonhoarding individuals is not the valuation of objects for their utility, but the frequency with which this is applied. For example, Frost and Steketee (2010) described a woman who saved cardboard tubes from toilet paper rolls because they might be useful for art projects. She had no plan to actually use them in that way, but rather wanted to save them for someone else who might do so, even though no such arrangements had been made with anyone else. For people with hoarding problems, ownership seems to carry with it the responsibility to make sure that objects are used and not wasted (Steketee et al., 2003).

To observers and especially family members and friends, the most apparent and serious symptom of hoarding is the clutter that fills the living areas of the home and prevents their normal use. The volume of clutter is usually a metric for the severity of a hoarding problem and typically covers more than 70% of the home living area (Pertusa et al., 2008). In extreme cases, the hoarding individual and those living in the household cannot cook in the kitchen, sit in the living room, or even use that bathroom. However, it is important to recognize that clutter is the result of essential features of hoarding, an environmental consequence of the disordered behavior rather than a causal feature. That is, excessive clutter ("the hoard") is the result of the excessive accumulation of a large volume of possessions and inability to remove them from the home, as well as from difficulty keeping possessions organized. With regard to the latter feature, most acquired items are piled in the middle of the room with little apparent organization. For example, old newspapers and packaging materials may be mixed with important papers like car titles and overdue bills. Problems with organization appear to be related to information processing deficits that are part of hoarding, including problems with categorization, attention, and decision making (see Chapter 9).

Although the objects saved in hoarded homes are similar in character to things saved by most people (Frost & Gross, 1993), the hoarding of animals is an exception. A recent review of the limited research on animal hoarding (Frost, Patronek, & Rosenfield, 2011) suggests both similarities and differences between object and animal hoarding. According to this review, animal hoarding appears to fit new DSM-5 diagnostic criteria for hoarding disorder (APA, 2013), although it is not formally included within this new diagnostic category as research on this problem is limited, and there may be substantial differences between those who hoard objects versus animals (see Chapter 11 for a review of animal hoarding).

Demographic Features

GENDER AND HOARDING

Only a few studies have described gender differences in how hoarding is experienced. Samuels et al. (2008b) found that men, but not women, with hoarding symptoms had more aggressive, sexual and religious obsessions and checking compulsions. Men and women also differed in other comorbidities. For men, hoarding was associated with tics and generalized anxiety disorder, whereas for women it was related to social phobia, posttraumatic stress disorder, body dysmorphic disorder, and impulse control disorders of nail biting and skin picking. Personality disorder differences were also observed, with women having more schizotypal and dependent personality disorder features as well as low conscientiousness.

However, conflicting findings were reported by Wheaton, Timpano, LaSalle-Ricci, and Murphy (2008) in a sample of patients with OCD examined for symptom subtypes. In that study, hoarding symptoms were associated with more comorbidities for women than for men, women reporting higher frequencies of bipolar I, alcohol and substance abuse, panic disorder, social phobia, and binge-eating. The only comorbidity associated with hoarding for men was a higher frequency of social phobia. In contrast, Labad et al. (2008) failed to find gender differences in comorbid conditions across the hoarding dimension in a sample of patients with OCD.

Since the participants in these studies were all drawn from OCD populations, conclusions are difficult to draw. In the only study reporting on gender and comorbidity in a sample selected for hoarding symptoms, Frost, Steketee, and Tolin (2011) found that among typical comorbid conditions that included major depression, social phobia,

generalized anxiety disorders, and OCD symptoms, only the latter were more frequent among men (28%) than among women (15%) with hoarding disorder, but no other gender differences in comorbidities were evident. (Comorbidity is reviewed in more detail in Chapter 7.)

MARITAL STATUS AND LIVING SITUATION

Growing evidence indicates that hoarding has profoundly negative effects on the family (Tolin, Frost et al., 2008a). It is easy to understand how difficult life would be for a spouse who must cope with a sea of possessions filling the home and preventing normal activities. Frost and Gross (1993) first noted that hoarding participants were less likely to be married at the time of the study than nonclinical controls (45% versus 80%). Since then, a number of other studies have reported similar findings.

Kim et al. (2003) found that a very high percentage of elder service clients identified as having hoarding problems had never been married (55%). In a related vein, Tolin et al. (2008b) reported that hoarding participants who were single, divorced, or widowed had more severe hoarding (higher scores on the Hoarding Rating Scale) than those who were married or cohabiting. Consistent with these reports, Pertusa et al. (2008) noted that their sample of hoarding participants was less likely to be married and more likely to live alone than were participants with OCD, other anxiety disorders, or community controls. Three recent studies corroborate these findings. Timpano, Keough, Traeger, and Schmidt (2011) found their hoarding participants less likely to be married than nonhoarding participants, and Landau et al. (2011) found a nonsignificant trend for hoarding participants to more often live alone. Further, Nordsletten, de la Cruz, Billotti, and Mataix-Cols (2013) found that hoarding participants were less likely to be married or partnered than collectors (14% versus 90%) and more likely to be living alone (72% versus 10%). Further, Samuels et al. (2008a) found the prevalence of hoarding higher among never married and widowed individuals than among married or cohabiting people. Torres et al. (2012) and Wheaton et al. (2008) found hoarding patients were more likely to live alone than nonhoarding patients with OCD.

Some research is at odds with the findings reported here. Two studies failed to find differences in marital status or the percentage of people living alone for hoarding and nonhoarding participants (Bulli et al., in press; Mueller, Mitchell, Crosby,

Glaesmer, & deZwaan 2009). In addition, Timpano et al. (2011) failed to find differences in marital status for OCD sample populations with and without hoarding. Overall, however, the preponderance of the evidence favors the conclusion that people with clinically significant hoarding are less likely to be married and more likely to live alone compared with other clinical and nonclinical individuals.

EDUCATION

Two studies have reported educational differences for hoarding compared with other samples. Landau et al. (2011) observed that their hoarding participants had less education than nonclinical participants (but more education than nonhoarding OCD participants. Also, Nordsletten et al. (2013) found lower levels of education among hoarding participants compared with a control group of collectors. However, most studies have not reported differences in education between hoarding and OCD or nonclinical samples (Frost, Steketee, & Tolin, 2011; Hartl et al., 2005; Pertusa et al., 2008) or any association between hoarding and education level in OCD samples (Torres et al., 2012; Wheaton et al., 2008). Nor have any of the population-based studies that reported on education level found any association with hoarding (Bulli et al., in press; Mueller et al., 2009; Samuels et al., 2008a; Timpano et al., 2011). Thus, the weight of evidence indicates that hoarding is not associated with lower education. Perhaps the positive Nordsletten et al. finding resulted from elevated education levels among collectors rather than a lower level in hoarding participants compared with other clinical and nonclinical groups.

INCOME

Few studies have reported on incomes in samples with hoarding problems, and conflicting findings have emerged across these studies with the largest samples. In their large Internet sample of hoarding participants, Tolin et al. (2008b) observed that the majority found paying bills difficult and nearly 40% reported incomes below the poverty line. Moreover, over 20% had failed to file an income tax return in at least 1 of the past 5 years. In population-based studies, Samuels et al. (2008a) found hoarding more prevalent among lower-income participants, but Mueller et al. (2011) found no income differences between hoarding and nonhoarding participants. Studying patients with OCD, Wheaton et al. (2008) found lower income levels among participants with versus without hoarding symptoms.

Finally, in carefully diagnosed clinical samples recruited for hoarding and for OCD, Frost et al. (2011) found no difference in income between these groups. Given the varying recruitment strategies, it is difficult to find a pattern in these data, although some findings suggest that hoarding may be tied to lower income.

The relatively low rate of unemployment (5.8%) among a large sample of people with clinically significant hoarding (e.g., Tolin et al., 2008b) suggests that underemployment would not account for lower incomes. More research is needed to determine whether hoarding symptoms have a significant impact on income.

Other Characteristics of Hoarding

Several other characteristics are closely associated with hoarding and considered to play an important role in the disorder. Difficulty making decisions has been linked to hoarding in a variety of studies and has been suggested to be a key underlying characteristic of people with hoarding problems (Frost & Hartl, 1996). Decision-making difficulties have been associated with each of the core features (acquisition, difficulty discarding, clutter), contributing to hoarding independently of depression, anxiety, and OCD symptoms (Frost, Tolin, Steketee, & Oh, 2011). Further, decision-making problems may be a familial trait characteristic of hoarding families (Samuels et al., 2007). Chapter 9 by Timpano and colleagues provides a detailed review of information processing difficulties in hoarding.

Perfectionism has also been suggested as an important characteristic in hoarding (Frost & Hartl, 1996). This was evident in higher scores for people with hoarding on measures of perfectionism compared with community controls (Frost & Gross, 1993), as well as correlations of perfectionism with hoarding severity and hoarding-related beliefs (Steketee et al., 2003). Further, perfectionism predicted hoarding severity independent of other OCD-related beliefs (Tolin, Brady, & Hannan, 2008). (Chapter 16 in this volume provides more information on this topic.)

In addition, limited research findings suggest that anxiety sensitivity, emotional reactivity, and excessive attachment may be characteristic of some people with hoarding disorder. For example, in nonclinical samples, hoarding was found related to anxiety sensitivity (Coles et al., 2003) and distress tolerance (Timpano et al., 2009). Nedelisky and Steele (2009) studied a small sample of patients with OCD to determine whether those with hoarding

symptoms may have an unusual attachment to objects compared with those without hoarding. Their findings provide preliminary evidence that people who hoard, especially women, have more emotional over involvement with inanimate objects and lower levels of such involvement with people than those without hoarding and that hoarding severity was correlated with increased dysfunction in these areas. Wheaton and colleagues' Chapter 7 also addresses some of these issues and notes the need for further research to clarify the nature of these features and their relationship to specific hoarding symptoms.

Personal, Family, and Community Consequences of Hoarding

Hoarding symptoms appear to range from mild to quite severe (e.g., Timpano et al., 2013a). In very severe cases, hoarding can have dramatic consequences, putting people at risk for falling, fire, and serious illness. In a survey of health departments in Massachusetts, Frost et al. (2000) found that not only was hoarding linked to health problems but also, in 6% of identified hoarding cases, a life was lost due to fire. A recent study of residential house fires in Melbourne, Australia, during the last decade indicated that while fewer than 0.025% of house fires involved hoarding, these fires accounted for 24% of fire-related deaths during that decade (Lucini, Monk, & Szlatenyi, 2009). People with serious hoarding problems report considerable emotional distress (Frost & Gross, 1993), impairment in normal daily activities (Frost, Hristova, Steketee, & Tolin, 2013), and a lower quality of life (Saxena et al., 2011).

Hoarding appears to provoke considerable financial problems for individual sufferers as well. In a survey of 864 self-identified participants with hoarding, nearly 6% reported being fired from their employment because of hoarding (Tolin et al., 2008b). Nearly two-thirds of the sample reported losing at least 1 work day per month due to psychiatric impairment, and hoarding participants averaged 7 impairment days during the previous month, more than most psychiatric groups reported in the National Comorbidity Study (Kessler et al., 2001). Hoarding participants in the Tolin et al. study also reported significant problems with cluttered work spaces and difficulty finding things. Other financial problems were apparent from this study as well: More than 20% of hoarding participants did not file an income tax return in at least one of the previous 5 years.

The financial costs of hoarding to the community can be enormous. Nearly 80% of hoarding cases investigated by health departments involved multiple agencies and required multiple visits by health officials (Frost et al., 2000). The San Francisco Task Force on Compulsive Hoarding (2009) estimated annual costs to landlords and social service agencies in the city to be over \$6 million. In the Melbourne study of house fires, the cost of fire damage was eight times greater in hoarded homes than homes without significant clutter (Lucini et al., 2009). Maintaining suitable housing is also challenging for people with serious hoarding behaviors. In the Tolin, Frost et al. (2008b) sample, nearly 8% of hoarding participants and more than 12% of hoarding family members reported that they had been evicted or threatened with eviction due to the hoarding. Hoarding appears to increase the risk of homelessness. Rodriguez et al. (2012) reported that nearly one-quarter of clients seeking help from an eviction intervention service met SI-R criteria for hoarding.

The health of people with hoarding problems can also be at risk from unsanitary conditions in the home (see Chapter 12). Exactly how many hoarding cases involve squalid living conditions is not clear, but hoarding and squalor do appear to be related and the combination may increase the risk for health problems. Hoarding is also associated with a wide variety of medical problems and conditions including obesity and other chronic illnesses such as diabetes, high blood pressure, ulcers, and others (Tolin et al., 2008b).

Hoarding also places considerable burden on families as well. Social service agencies have removed children, elders, or pets from the home due to the severity of hoarding for as many as 1 in 25 people with hoarding (Tolin et al., 2008b). In addition, compared with those who did not live in a hoarded home during childhood, those who did reported a less happy childhood, more difficulty making friends, greater embarrassment about the home, not having others visit them, and substantial family arguments and strain (Tolin et al., 2008a). These difficulties appeared to be more severe and long lasting if the person lived with their hoarding parent when they were younger than 10. In general, family members of people who hoard developed high levels of frustration, rejection, and hostility toward their hoarding relative (Tolin et al., 2008a), comparable to levels shown toward family members suffering from severe mental illness such as schizophrenia.

These findings suggest that the negative impact of growing up in a hoarded home is strong and persists into adulthood. As noted earlier, hoarding may also reduce the likelihood of getting and staying married.

Insight

Clinicians have commonly rated their clients with hoarding as having limited or poor insight into the presence or seriousness of their symptoms (DeBerardis et al., 2005; Frost, Krause, & Steketee, 1996; Matsunaga et al., 2005), interfering with their ability to seek treatment (Abramowitz et al., 2003; Saxena & Maidment, 2004), and contributing to premature discontinuation (Mataix-Cols et al., 1999). Family members rated their hoarding relative as having “poor insight” or “delusional” thinking in the majority of cases (Tolin, Fitch, Frost, & Steketee, 2010). However, according to a large-sample Internet study of hoarding, the overwhelming majority of people reported interest in seeking treatment for their hoarding problems if it were available, suggesting some degree of insight for most people with clinical hoarding symptoms (Tolin et al., 2008a). Complicating the understanding of insight in hoarding is confusion over how to define lack of insight (not knowing or acknowledging the existence of a problem) versus overvalued ideas about the importance of possessions (Frost, Tolin, & Maltby, 2010). Worden and Tolin provide a fuller review and discussion of insight in hoarding in Chapter 19, and Tompkins and Hartl discuss insight in relation to familial interactions about hoarding in Chapter 23.

Prevalence

Several initial attempts to establish the prevalence of hoarding in the population relied on inaccurate definitions and methods of measuring hoarding, but they did provide an initial glimpse into the frequency of hoarding-related phenomena. Ruscio, Stein, Chiu, and Kessler (2008) examined National Comorbidity Study data to establish prevalence rates for OCD and specific OCD symptoms. Interviewers asked about specific obsessions (defined as “unpleasant thoughts, images or impulses”) and compulsions (“repeated behaviors or repeated mental acts that you felt compelled to do”). Hoarding “obsessions” and/or “compulsions” were detected in 14.4% of the sample. This finding is difficult to interpret since hoarding symptoms do not fit well with these definitions of obsessions or compulsions, nor did the severity assessment clarify

whether the hoarding symptoms themselves, versus other OCD symptoms, met clinical criteria.

A similar definition for hoarding was used by Fullana et al. (2010) using data from the European Study of the Epidemiology of Mental Disorders, a project involving cross-sectional interviews with representative households in six European countries. They found a prevalence rate of 2.6% for hoarding “compulsions,” with no differences by gender. As with the Ruscio et al. (2008) study, however, the definition and assessment of hoarding symptoms did not conform to current conceptualizations of hoarding, nor was there any attempt to verify hoarding status with validated measures.

Samuels et al. (2008a) examined the frequency with which participants in an epidemiological study of personality disorders endorsed hoarding symptoms. The study involved a probabilistic sampling of adults in east Baltimore; 742 were interviewed. Embedded in the interview were several questions intended to determine the presence of the hoarding criterion from the DSM-IV Obsessive Compulsive Personality Disorder section: “unable to discard worn-out or worthless objects even when they have no sentimental value” (APA, 1994). Using this definition, 3.7% met criteria for “pathological” hoarding. Adjusting for population demographics resulted in a weighted prevalence rate of 5.3% overall, with twice as many men as women represented. Again, their definition of hoarding did not conform to current conceptualizations of the disorder, and the researchers did not confirm hoarding status with established measures.

Dong, Simon, and Evans (2012) examined the prevalence of self-neglect and hoarding in a representative sample of elderly residents as part of the Chicago Health and Aging Project. The prevalence of hoarding was 4.1% to 5.4% for men and did not vary across the three older age groups in the study (65 to 74, 75 to 84, and older than 85). For women, the prevalence rate declined across the age groups from 5.0% to 3.5% to 2.3%. The authors did not specify how hoarding was assessed other than indicating that trained interviewers collected the data.

To date, four studies have examined the population prevalence of hoarding using well-established definitions and validated assessments. In the United Kingdom, Iervolino et al. (2009) examined over 5000 participants in the adult twin registry using the self-report version of the Hoarding Rating Scale (Tolin et al., 2010), which assesses the main symptoms of hoarding, including distress and functioning. Severe hoarding symptoms were found in 2.3%

of the sample with the prevalence in men nearly twice that for women (4.1% versus 2.1%). Mueller et al. (2009) selected a representative sample of the German population to establish a prevalence rate for compulsive hoarding. Using a German version of the Saving Inventory–Revised (Frost et al., 2004) and a criterion of 2 standard deviations above the mean, they reported a point prevalence rate of 4.6% and did not find differences by gender. In a further study of a representative German sample, Timpano et al. (2011) used a German version of the Hoarding Rating Scale and the proposed DSM-5 criteria for hoarding disorder. Applying the same cutoff (17) on the HRS as Iervolino et al. (2008), they reported a prevalence of 6.7%. When they applied the new DSM-5 criteria (without the acquisition item from the HRS), they found a slightly lower rate of 5.8%. The rate at which participants met the DSM-5 hoarding criteria in combination with the acquisition specifier was 3.9%. No gender differences emerged. Finally, in a sample of over 1000 Italian participants, Bulli et al. (in press) used an established cutoff score (41) on the Italian Saving Inventory–Revised (Melli, Chiorri, Smurra, & Frost, 2013) to determine hoarding status and reported a prevalence rate of 6.0%. Again, there were no gender differences in prevalence.

The four studies just described provide the best estimate of hoarding prevalence based on up-to-date definitions and measures of hoarding. In these studies, the prevalence of hoarding ranged from 2.3% to 6%, and only one of the four studies found gender effects. While not conclusive, it appears that the presence of hoarding behavior does not vary by gender, despite the fact that women predominate in most clinical studies of hoarding cases (Frost, Steketee, & Tolin, 2011; Pertusa et al., 2008; Saxena et al., 2002; Tolin et al., 2008a, 2008b). Perhaps women are more likely to volunteer for research studies involving hoarding and are more willing to seek treatment for the problem.

Culture and Hoarding

Although the majority of research on hoarding has been conducted in the West, reports of hoarding have appeared in most other parts of the world, including China (Alcon, Glazier, & Rodriguez, 2011), Japan (Matsunaga et al., 2010), Turkey (Tukel et al., 2005), India (Chakraborty et al., 2012), and Iran (Mohammadzadeh, 2009). Even in countries where no research on hoarding has been done, news accounts of hoarding are common. For instance, a recent story about a hoarding case

in Korea describes the problem as common (Baker & Tai, 2012). In Singapore, one news organization has been following a hoarding case for several years (Kang, 2012).

Despite its seeming ubiquity, estimates of the relative frequency of hoarding across countries have been hampered by sample and measurement problems. Many such studies include only patients already diagnosed with OCD. Since only a fraction of people with hoarding disorder are comorbid for OCD (Frost et al., 2011), such estimates are undoubtedly inaccurate. Furthermore, many such studies also rely on the YBOCS checklist to indicate hoarding. The YBOCS checklist has limited validity as a measure of hoarding (see Chapter 18). Nevertheless, these studies provide some indication of hoarding outside of the West. For instance, Matsunaga et al. (2010) report hoarding frequencies of 32% among patients with OCD in Japan. They conclude that the prevalence and correlates of hoarding among Japanese patients with OCD are similar to those found in the West. Tukel et al. (2005) found that 11% of 116 OCD cases in Istanbul reported hoarding symptoms. Rates of hoarding among patients with OCD in Brazil have varied from 16% using the YBOCS (Fontenelle et al., 2004) to 53% using a modified version (DY-BOCS; Torres et al., 2012). In Spain, Fullana (2004) reported that up to 30% of patients with OCD endorsed hoarding symptoms.

Several studies outside of the United States and United Kingdom have used well-validated measures of hoarding. Chakraborty et al. (2012) used the SI-R in a sample of Indian patients with OCD and reported a 10% frequency of clinical hoarding. Similarly, Fontenelle et al. (2010) reported that 17% of patients with OCD in Brazil met criteria for hoarding based on the SI-R. Two population-based studies in Germany and using validated measures of hoarding reported frequencies of clinically significant hoarding of 4.8% and 5.8% (Mueller et al., 2009; Timpano et al., 2011). Similarly, a study in Italy reported a prevalence rate of 6% using the SI-R (Bulli et al., in press).

Two studies have attempted to compare hoarding across countries. Fullana et al. (2010) reported on the frequency and associated features of OCD symptoms dimensions in the general population across 6 European countries (Belgium, France, Germany, Italy, the Netherlands, and Spain). OCD dimensions (including hoarding) were assessed via a clinical interview. The overall rate of hoarding (2.6%) was similar to rates observed in other epidemiological studies of hoarding (e.g., Iervolino

et al., 2009). The frequency varied somewhat across countries with higher frequencies observed in Belgium, France, and Italy and lower frequencies in the Netherlands. Questions about the validity of the hoarding measure make these findings tentative.

In the only other study comparing rates across countries, Timpano et al. (2013b) examined hoarding and impulsivity in university students in the United States and Germany. Using the SI-R, 6% of the U.S. sample and 8% of German students met criteria for clinically significant hoarding. Moreover, the pattern of relationships between hoarding and impulsivity were similar across the two samples suggesting that hoarding and its associated features may be similar across U.S. and European cultures.

To date, very little attention has been paid to the role of culture in hoarding. However, reports of serious hoarding behavior have surfaced across the globe, and existing research suggests that the prevalence and characteristics of hoarding are similar across cultures. More research will be needed to confirm this impression.

Onset

A number of studies have suggested that hoarding is associated with an early age of onset during childhood or adolescence. In patients with previously diagnosed OCD, some studies have found the presence of hoarding symptoms associated with an earlier onset compared with those with OCD and no hoarding (Fontenelle, Mendlowicz, Soares, & Versiani, 2004; Millet et al., 2004; Rosario-Campos et al., 2005; Samuels et al., 2002, 2008a; Torres et al., 2012; Tukul et al., 2005). However, several studies have failed to find earlier onset among patients with OCD and hoarding (Cromer et al., 2007; Hasler et al., 2007; Lochner et al., 2005; Mathews et al., 2007; Samuels et al., 2007). It is difficult to draw firm conclusions from these studies as the data are based on patient volunteers from OCD clinics who also reported having hoarding symptoms. Furthermore, the severity of hoarding was rarely specified, nor whether non-OCD hoarding patients were included in the samples. Given recent findings that only a small percentage (less than 20%) of people recruited for hoarding symptoms also have comorbid OCD (Frost, Steketee, & Tolin, 2011), these studies are unlikely to adequately represent people with hoarding as their primary problem. Fortunately, several studies of age of onset in hoarding have relied on participants recruited specifically for their hoarding symptoms rather than for OCD.

Grisham, Frost, Steketee, Kim, and Hood (2006) developed an assessment interview for age of onset that involved marker recollections from each decade of life ("Think of an event that occurred in this decade"). They used the marker to prompt recollections of the severity of acquisition, difficulty discarding, and clutter at that time. Participants rated the severity of each symptom (none, mild, moderate, severe) during each decade surrounding the recalled event. Among the 51 hoarding participants in their sample, mild hoarding symptoms began by age 12 for 60% of the sample and by age 18 for 80%. Mean duration until onset was 13.4 years. According to most reports, moderate symptoms began in their 20s and severe symptoms a decade later. Excessive acquisition occurred later than difficulty discarding or clutter.

Tolin et al. (2010) found a similar age of onset in a large sample of hoarding individuals ($N = 751$) recruited from the web, using a similar procedure to identify severity of hoarding at 5-year intervals across the lifespan. Seventy percent of the sample reported onset of mild hoarding symptoms between ages 11 and 20, with very few reporting onset after age 40. Onset of moderate or severe hoarding occurred significantly later: only 33% reporting moderate to severe hoarding as early as age 20, whereas 75% reported onset of moderate or severe hoarding by age 40.

Landau et al. (2011) asked 44 hoarding participants the age at which each hoarding symptom (excessive acquisition, difficulty discarding, and clutter) began and became significant. The initial onset ages were 16 for acquisition, 18 for difficulty discarding, and 21 for clutter. Clinically significant hoarding for each of these symptoms began at ages 32, 35.5, and 30, respectively. Although onset was very slightly later than reported in the Grisham et al. and Tolin et al. studies, the timeframe of onset in adolescence and young adulthood was confirmed.

However, two studies reported somewhat older average ages of onset. In a sample of 52 hoarding participants, Pertusa et al. (2008) found that difficulty discarding began at an average age of 20, excessive acquisition at 26, and clutter from 25 to 31. In this study, onset age was determined by single-item general questions about the onset of significant difficulty discarding, acquisition problem, and clutter. Ayers, Saxena, Golshan, and Wetherall (2010) also found a somewhat older average onset age of 29.5 when they asked a small number ($N = 18$) of elderly hoarding participants to respond to the question, "When did your hoarding start?" Interestingly,

when Ayers and colleagues utilized Grisham et al.'s method of asking for recollection event markers by decade with the same participants, the sample reported a considerably younger age of onset: 44% reported onset earlier than 10 years old, and 39% reported an onset between 11 and 20. The remaining 3 participants reported an onset in their 20s.

Thus, overall, it appears that hoarding onsets relatively early in life, mainly during childhood and teen years, with some beginning their symptoms in their early to mid 20s. From a methodological standpoint, strategies that evaluate specific hoarding symptoms by decade using memory aids appear to trigger earlier onset recall than merely asking participants when their symptoms began. Nonetheless, additional research is needed to verify onset age for symptoms of collecting, difficulty discarding, and clutter from a prospective point of view. Interestingly, a prospective web-based study of college students by Muroff, Bratnotis, and Steketee (2012) indicated the presence of subclinical or clinical hoarding markers in 33% of a sample of 4364 undergraduates, and 5.4% met diagnostic criteria for hoarding disorder based on DSM-5. More research regarding onset may aid in eventual prevention strategies.

Course

Existing studies suggest that hoarding is a chronic condition. Grisham et al. (2006) found that only 14% of their sample of 51 hoarding participants remitted after onset. In a small sample of elderly hoarding participants ($N = 18$), all reported a worsening course (Ayers et al., 2010). In a large sample Internet study ($N = 751$), Tolin et al. (2010) found that 73% of cases followed a chronic course, 21% reported increasing severity, 5% had a fluctuating course with relapses and remissions, and fewer than 1% indicated an improving course.

The relationship of hoarding severity to age is somewhat unclear. Although the onset of hoarding symptoms typically was reported to occur before age 20, most research samples are much older in clinical psychopathology and treatment studies (Pertusa et al., 2008; Saxena et al., 2002, 2011; Steketee, Frost, Tolin, Rasmussen, & Brown, 2010; Tolin & Villavicencio, 2011) and in social and health service cases (Frost et al., 2000). In research studies reporting on volunteer samples with self-reported hoarding problems, the median age is typically between 50 and 60, in contrast to comparable samples of people who self-identify with OCD where current age is typically between 30 and 40 years old

(Frost et al., 2011). Elder service agencies are often the first to identify hoarding problems (Ayers et al., 2010), giving the mistaken impression that hoarding is especially prevalent among the elderly when, in fact, the symptoms were clinically problematic at a much earlier age.

In any case, findings from studies of the association between hoarding and age are conflicting. Research on volunteers recruited for hoarding has indicated that sometimes severity was correlated with age (Tolin et al., 2010), and sometimes not (Reid et al., 2011; Tolin et al., 2008b). In samples recruited for OCD symptoms, again, some studies have reported that hoarding severity is related to age, even after controlling for other variables (LaSalle-Ricci et al., 2006; Torres et al., 2012), but other studies have found no age differences between OCD cases with and without hoarding (Cromer et al., 2007; Fontenelle et al., 2004; Wheaton et al., 2008). Epidemiological studies have been equally conflicting. Samuels et al. (2008a) found hoarding to be nearly three times as prevalent among older adults (55 to 94) than younger ones (33 to 44), but four other epidemiological studies have failed to find associations between hoarding status and age (Bulli et al., in press; Fullana et al., 2010; Mueller et al., 2009; Timpano et al., 2011). This discrepancy may result from Samuels et al.'s definition of hoarding based on the DSM-IV criteria for OCPD (difficulty discarding worthless or worn-out things), which is not consistent with standard assessments for hoarding used in the other studies. In any case, the several findings described support the conclusion that hoarding begins early, worsens over the following decade or two, and then remains relatively stable at moderate to severe levels into old age.

Traumatic and Stressful Life Events

One feature that may affect onset is the experience of traumatic or stressful life events. A number of studies have found a higher frequency of traumatic and stressful life events among people with hoarding problems. Hartl et al. (2005) found a higher incidence of trauma among hoarding versus nonclinical participants. In particular, hoarding participants reported greater frequencies of having had something taken from them by force, being physically roughly handled, and having experienced forced sexual activity and/or forced intercourse both before and after age 18. Tolin et al. (2010) found a significant positive relationship between stressful life events and hoarding severity, with more than 90% experiencing a loss of or change in relationships,