Older People in Natural Disasters: The Great Hanshin Earthquake of 1995, 2010, by Junko Otani. Kyoto, Japan: Kyoto University Press.

## Lori Peek

Department of Sociology and Center for Disaster and Risk Analysis Colorado State University

## Lisa M. Brown

School of Aging Studies University of South Florida

Email: Lori.Peek@colostate.edu

The old adage "You can't judge a book by its cover" holds true for *Older People in Natural Disasters*, by Junko Otani. Although the main title suggests otherwise, this is not a general text on issues pertaining to aging and disasters. Instead, it is a carefully researched monograph on the experiences of a sample of low-income older adults during the post-disaster reconstruction period in Kobe, Japan, after the 1995 Great Hanshin earthquake. Dr. Otani has identified an important topic that is worthy of research: How do older adults fare when their community is disrupted by disaster? This question is all the more pressing given the heavy toll the Great Hanshin earthquake exacted on the elderly.

The earthquake, measuring M7.2 on the Richter scale, struck during the early morning hours on January 17, 1995. The shaking, which lasted 20 seconds, devastated a large area of land and affected 1.6 million residents. Kobe was the closest major city to the epicenter and was hit by the strongest tremors. Over 400,000 houses were damaged beyond repair and hundreds of thousands of people were evacuated to 1,150 temporary shelters. Approximately 6,400 persons lost their lives; 53 percent of those who died were age 60 or older. Prior to the quake, this group represented only about 17 percent of the population.

Dr. Otani acknowledges the disproportionate number of deaths among the elderly. However, her focus in this book is on those older persons who survived the disaster, only to experience a "second disaster" that emerged from the slow and uneven housing recovery process. In particular, she offers an analysis of what happened to low-income elderly persons with little family support who were relocated to temporary shelter housing and later to public reconstruction housing after the earthquake.

This book uses qualitative and quantitative data to paint a portrait of the ongoing disruptions that some of Kobe's most vulnerable elderly experienced in the years following the earthquake. Specifically, Otani conducted secondary statistical analyses of data from the Hyogo Prefecture Health Survey, quantitative and qualitative analyses of

television and newspaper coverage of the event, and ethnographic research at temporary shelter housing and public reconstruction housing sites in central and suburban Kobe. The book includes eight chapters, a conclusion, an epilogue that describes Otani's personal experience of the Great Hanshin earthquake (she is a native of Japan but was in Bangkok at the time of the earthquake), and several appendices of maps and additional methodological details. A unique aspect of the text is her level of methodological reflexivity, especially in her discussions of how her identity and presence might have affected her research findings.

The first three chapters offer background and contextual information on the study. Chapter One draws on secondary data to illustrate the various ways that population aging—Japan has the most rapidly aging population in the world and the highest proportion of elderly of any nation—is shaping, and will continue to shape, Japanese society. Additional data is presented to illustrate the ways that shifts in the economy, income distribution, social security and other government policies, family structures, population mobility, and life expectancy have rendered segments of the Japanese elderly population more vulnerable. Chapter Two provides a somewhat dated and uneven review of the literature on the health impacts of disaster, socially vulnerable groups, and the role of media in framing disaster and shaping social policy. Chapter Three outlines the methodological approach of the study including discussion of data sources, data collection efforts, and techniques of data analysis.

Chapter Four offers an analysis of data from the 1996-1998 Hyogo Prefecture Post-Earthquake Health Survey. Inconsistencies in survey items made comparing data across the three years difficult in some instances, although a number of important patterns emerged. First, the proportion of those persons living alone in temporary shelter housing and public reconstruction housing increased significantly between 1996 and 1998. Second, in all types of housing and across the three data collection points, people between the ages of 50 and 60 reported the highest proportion of problems with mental health. Third, alcohol dependency, especially among men living in temporary shelter housing, increased over the three year survey period. The second half of Chapter Four offers a brief quantitative summary of the media data, and includes the finding that 33 percent of the earthquake-related television coverage in 1999 and 2000 was dedicated to issues facing the elderly.

Chapter Five draws on observational and interview data to describe the situation of elderly residents in temporary shelter housing. These residents, most of whom were low-income individuals living alone, were moved to temporary shelter housing several months after the earthquake when the evacuation shelters began to close. They remained in the temporary housing for about three years until they were relocated to public reconstruction housing. These modern high-rise apartment buildings, all constructed by the government after the earthquake to provide up to 40,000 new housing units, are the focus of Chapter Six. Otani juxtaposes the overwhelmingly negative media coverage of

public reconstruction housing with the more mixed responses among residents—some articulated benefits of living in this type of housing, whereas others expressed concern with the isolation and lack of access to resources that the urban, high-rise living environment imposed.

Chapters Seven and Eght take up two specific issues that were highlighted frequently in the media and investigated more closely by Otani: loneliness and dying alone. Chapter Seven argues that both housing types were places where "hundreds of people were lonely together" (p. 159). However, temporary shelter housing, due to its low-rise physical layout and the more extensive provision of resources within the physical space, facilitated more exchange between residents than did the more isolating and ostensibly loneliness-inducing public reconstruction housing. Chapter Eight addresses the problem of *kodokushi*, or "dying alone." This chapter argues that the lack of preparation for the dynamics of an aging society combined with weakened forms of traditional community and family support will inevitably lead to more elders "dying alone" in Japan and other societies with rapidly aging populations. The conclusion to the book summarizes the primary findings from the research and offers a number of policy recommendations.

One of the most important contributions of this book is the intersectional analysis that Otani offers. She frequently references the interconnections between age, gender, social class, and family structure, thus effectively highlighting the ways that vulnerability may be amplified for some of the most marginalized members of society. She does an especially effective job in disentangling the gendered effects of the disaster and in emphasizing the need for more complex survey data collection techniques to better measure this construct. This study may also offer instructive lessons (and cautionary tales) for the government officials tasked with managing the recovery from the 2011 Tōhoku earthquake and tsunami. Early reports suggest that the oldest segment of Japan's population was hardest hit by this disaster. A key message of Otani's research is that without proper social support, this population may suffer more severe mental and physical health consequences related to the long-term recovery process.

Given the limited, but growing literature about older adults and disasters in general, and about specific cultural groups in particular, Dr. Otani's book makes a nice contribution to the field. Presenting factors that exacerbate vulnerability, such as loneliness, isolation, and a protracted recovery phase, helps illuminate some of the struggles encountered by older adults after disasters. We believe this book will be of interest to those who study elderly persons in disaster, the public health implications of disaster, and post-disaster housing policies. *Older People in Natural Disasters* would make a welcome addition to university libraries and other resource collections within hazards and disaster research centers.

Copyright of International Journal of Mass Emergencies & Disasters is the property of International Research Committee on Disasters and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.