

## Chapter 2

# Lessons Learned on Forced Relocation of Older Adults: The Impact of Hurricane Andrew on Health, Mental Health, and Social Support of Public Housing Residents

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**ABSTRACT.** This article is an exploratory-descriptive study of older adult public housing residents who were forcibly relocated from their homes when Hurricane Andrew struck Miami-Dade County in 1992. The subjects were all African Americans (N = 58) with a mean age of 67 years (S.D. = 9.8) who lived in economically depressed, low-income communities. Almost 70% were females. The subjects suffered from an array of physical and mental health maladies that were exacerbated when they were uprooted from key support systems, including families, social services, and health care facilities they depended on. A variety of complaints surfaced about their new living arrangements and almost 70% expressed a desire to return to their previous homes after long-term structural repairs were complete. Implications are discussed regarding the need for pre-emptive “elder-sensitive” strategic planning, the role of

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Public Housing Authorities in properly caring for older adults before and after a hurricane or other natural disaster, the need for appropriate training of public housing property managers, and the key role of social workers during post-disaster interventions with older adults and their families. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2003 by The Haworth Press, Inc. All rights reserved.]

**KEYWORDS.** Older adults, elderly, elders, forced relocation, hurricane, natural disasters, public housing, health, mental health, social support

Relocation results in an element of stress even when the move or transition is planned, anticipated, and of a personal choice. The impact of relocation can be twice as traumatic and stressful, however, when the element of choice is removed and the person must relocate due to health status, neighborhood change, or natural disaster (Brown & Perkins, 1992). One population that has been consistently impacted by relocation has been older adults. The literature points out that a range of psychological changes, such as depression, social withdrawal and changes in satisfaction with life (Thomasma, Yeahworth, & McCabe, 1990), as well as physical change like increased pain, mental and physical functioning, and perception of one's health status (Gallagher & Walker, 1990; Grant, Skinkle & Lipps, 1992) occur after relocation in older adults. One area of gerontological research that needs more attention is the impact of forced relocation on older adults following a natural disaster, such as a hurricane.

When Hurricane Andrew struck Miami, Florida in August 1992, it was one of the most catastrophic events to occur in modern history of natural disasters. The hurricane caused over \$2 billion in property damages and resulted in an upheaval of thousands of individuals in different communities. Many people became aware that post-hurricane events and situations were just as calamitous as the storm itself. This was particularly true for older adults who lived in public housing and were even more vulnerable to results of the natural disaster than the actual hurricane itself (Bolin & Klenow, 1983).

The older adults who lived in public housing communities were some of the most vulnerable populations affected by Hurricane Andrew. When Hurricane Andrew struck Florida, there were approximately 400,000 older adults living in Dade County, which represented the highest number of people over the age of 65 in the state (Munroe, Rothman, Becker, & Smith, 1991). During this time, there were 5,014 public housing units that were designated specifically

for older adults in Miami-Dade County. The area that was most affected by Hurricane Andrew was the southernmost region of the county, which had 270 units specifically designated for older adults.

While the hurricane caused a large degree of problems for this population, the problems and post-hurricane events were compounded by the other realities of life in a public housing complex. For instance, individuals who live in public housing experience poorer health and a greater incidence of unmet needs by not only the housing facility itself, but also the agencies in the surrounding area (Harper, 1992; Sheehan, 1987; Suggs, Stephens, & Kivett, 1986).

Geriatric social workers are often a frontline service for older adults who have experienced a forced relocation following a natural disaster, such as Hurricane Andrew. Additionally, the social work profession is involved in the long term problems that forced relocation can cause for older adults. This study examined the effects of forced relocation on low-income African American older adults in Miami-Dade County in the aftermath of Hurricane Andrew.

### ***REVIEW OF THE LITERATURE***

The literature on older adults and natural disasters was primarily written during the mid 1970s and 1980s with little new research being conducted in that last 20 years. The early literature in this area highlighted the fact that older adults are more at risk during natural disasters than other populations based on several variables: (1) They are less likely to evacuate their homes/property after warnings have been posted (Cohen & Poulshock, 1988; Friedsam, 1961); (2) They live in homes that are more structurally unsound and prone to damage in disasters (Kilijanek & Drabek, 1979); (3) They experience greater psychological and emotional trauma as a result of losses associated with the disaster (Bolin & Klenow, 1983; Lifton & Olsen, 1976); and, (4) They are less likely to receive assistance than are younger victims (Kilijanek & Drabek, 1979). Based on these four factors, older adults are at a high level of risk for not only experiencing physical, psychological, and emotional harm during a natural disaster, but also not having their needs met in the aftermath of the event. Additionally, older adults been characterized as one of the “top three high-risk special populations” for post disaster support and intervention (Massey, 1997).

*Psychological and emotional effects.* The psychological and emotional stress experienced by older adults as a result of natural disasters has received a great deal of empirical attention. Hansson, Nouelles, and Bellorich (1982) found that older individuals experienced more psychological distress following a flood. Bolin and Klenow (1983) suggested that as a result of the losses

older adults experienced after the disaster, they suffered more psychological stress. Phifer and Norris (1989) found that older adult survivors experienced changes in positive affect after natural disasters. Research has emphasized that natural disasters created a strong sense of physical, emotional and social loss in the victims, as well as the feeling that the environment that they had once trusted was no longer safe (Massey, 1997). Shelby and Tredinnick (1995) found that the survivors of Hurricane Andrew not only looked to the future without the security of tangible items from their past, but also without the financial resources that they needed to rebuild the life that they had lost. Conversely, Riad and Norris (1996) found that relocation was not a factor leading to psychological distress among Hurricane Andrew survivors; however, the survivors did experience a great deal of ecological stress in terms of food and water shortages and overcrowding. Similarly, pre-disaster levels of depression have been found to impact the level of post-natural disaster depression (Knight, Gatz, Heller & Bengtson, 2000). Negative health changes have also been found in older adults after natural disasters (Phifer, 1990). Other research not specific to natural disasters has cautioned that any stressful life event may lead to increased depressive symptomatology in older adults (Glass & Kasl, 1997).

*Social support networks.* The role of social supports for older adults following a natural disaster has received considerable empirical attention. The importance of social supports in the lives of older adults cannot be minimized, particularly in the face of a relocation that was forced and unplanned such as those that are associated with a traumatic event, like a natural disaster. Johnson (1996) emphasized that relocation for older adults is difficult because they are “facing not just a change in physical location of primary living space, but a change in daily life patterns, social networks, and supports” (p. 173). Bolin and Klenow (1983) argued that friends and relatives are essential support systems for assisting individuals in coping with the physical, psychological and emotional issues that accompanied the losses following the disaster. Unfortunately, research indicates that, prior to a natural disaster, older adults believed that they would obtain more assistance from both formal and informal support networks than they did following the disaster (Kaniasty, Norris, & Murrell, 1990). Victims received very little help and much less than they had expected and “on kin and non-kin help measures, most victims reported receiving little or no help at all” (p. 97).

Social support systems have been found to greatly impact the psychological status of disaster victims. Tyler (2000) found that older adult survivors of the Midwest flood in the early 1990's who had secure social support systems experienced less depression than those individuals with weaker support systems.

Tyler also found that psychological status among older adults was greatly impacted by their ability to obtain social services following the disaster. Tucker and Pfefferbaum (2000) found that adult survivors of the Oklahoma City bombing who obtained support through formal services, such as counseling were individuals who had higher rates of PTSD than individuals who only relied on informal support systems, such as work colleagues. This suggests that the survivors who experienced the greatest amount of psychological distress sought out services to provide them with assistance.

*Proactive planning.* Some of the literature that has examined the impact of a natural disaster on older adults emphasized that planning is essential to assist this population in evacuating the area associated with the natural disaster. Mangum, Kosberg, and McDonald (1985) emphasized the need contingency plans for frail older adults in communities that are prone to natural disasters, such as hurricanes. Siverman and Weston (1995) suggested that careful planning for frail older adults during a natural disaster can reduce adverse psychological and emotional effects. These researchers found that because of careful planning and monitoring of nursing home residents during Hurricane Andrew, no resident required geropsychiatric hospitalization to address the trauma associated with the storm.

As a result of the crisis that natural disasters cause in communities, many individuals, including older adults, are forced to relocate. The impact of forced relocation on older adults has received scant attention in the literature. The limited research on this issue found that following a forced relocation due to a natural disaster, adults experienced feelings of numbness, anxiety, trouble thinking and making decisions, grief, despair, and problems sleeping (Gerrity & Steinglass, 1994). African American and other minority older adults are often the victims of forced relocation, particularly those older adults who live in the urban areas. Skinner (1992) suggested that because of the history of discrimination and the nature of ageism in this country, many African American older adults have been “aging in place” without having the choice about where they will move in the future; instead the decision is either made for them or they have limited formal supports available to assist them with the aging process. For older African Americans who have lived their lives in the inner city, forced relocation leads to increased problems because it “may disturb the delicate balance that took years of community living and sharing to establish, resulting in the potential loss of goodwill and social contacts that had been cultivated over the years” (Skinner, 1992, p. 52).

The issue of forced relocation of older adults following a natural disaster is an essential topic to be examined by human service providers, as well as by policy makers. With the knowledge that future natural disasters are always on

the horizon, the more that can be learned about the impact of this event on older individuals, the better the preparations can be for lessening the trauma to people. The current study was designed to provide exploratory and descriptive data on the impact that post-disaster forced relocation had on African American older adults who lived in public housing communities in Miami-Dade County. The study was developed to address the following research questions:

- What types of health and mental health conditions were unmet during the wake of the Hurricane Andrew relocation?
- What types of social support systems did the older adults lose after being relocated?
- What factors influenced respondent's desire to remain in the relocated apartment instead of returning home?

### **METHODOLOGY**

Data for the study were obtained through personal interviews with 225 subjects, 137 of which were usable for data analysis. Of this group, 58 individuals (42%) had been forcibly relocated as a result of Hurricane Andrew. Data were collected on respondents health history, social support networks, current needs, the relocation process, and their status in the new residence. The population from which the purposive sample was obtained consisted of African American older adult residents who lived in the nine public housing sites in the southernmost region of Miami-Dade County. The listing of residents in this region was obtained from the Public Housing Authority Operations Division.

#### ***Sampling Strategy***

Approximately 30 graduate and undergraduate social work students from Florida International University School of Social Work conducted needs assessments on older adults who had been relocated as a result of serious structural damage to their home. This group of individuals was interviewed immediately after the hurricane. These individuals had been physically relocated to high-rise apartments in the north-central region of Miami-Dade County, approximately 30 miles from their neighborhoods.

The social work students used a structured interview schedule to determine the needs of the older adults. The participants had been identified during a post-hurricane emergency feeding program that was initiated two days after the hurricane. They were informed at that time that someone would be visiting them to assess their needs.

### *Data Analysis*

Descriptive data were obtained during this study to provide a summary of the needs of African American older adults following a natural disaster. The descriptive data focused on the physical and mental health conditions of this population, as well as their social support systems. Additionally, qualitative comments from the older adults were recorded to provide in depth detail about the trauma that was associated with this relocation effort.

## **RESULTS**

### *Sample*

Fifty-eight African American older adults were interviewed after being relocated to high-rise apartment complexes following Hurricane Andrew. Sixty-nine percent ( $N = 40$ ) of the sample was female, while 31% ( $N = 18$ ) were male. The age of the sample ranged from 49 to 84 years old ( $M = 67.3$ ,  $SD = 9.8$ ). Seventy-nine percent ( $N = 46$ ) of the sample had a least one chronic health condition that required medical attention and medication. Out of the sample of 58 individuals who had been relocated, only 29% ( $N = 17$ ) wanted to remain in the new location. The remaining individuals wanted to return to their old neighborhood and home.

### *Findings*

*Health status.* The population of older adults who were relocated following Hurricane Andrew had an average of 2 chronic health conditions that required ongoing medical attention and strict medication management. However, only 28% ( $n = 16$ ) of the individuals had their physical health care needs met following the relocation effort. Forty percent ( $n = 23$ ) indicated that they had needed to see a physician or therapist for medication management, unknown sickness or mental health condition, such as severe stress. As indicated in Table 1, a large proportion of respondents had a chronic condition that had to be controlled through medication. Additionally, many individuals had secondary health conditions, such as the flu or a cold that could exacerbate a chronic condition. As a result of the relocation effort, many of the respondents had to locate new health care providers to manage their chronic health care conditions. This was one of the issues that created the most anxiety and concern for the respondents. Table 1 provides a summary of the conditions possessed by the relocated older adults.

TABLE 1. Physical Health Status of Relocated Older Adults

<i>Health Condition</i>	<i>Percentage</i>	<i>N</i>
Cardiac Problems	38	21
High Blood Pressure	27	15
Arthritis	27	15
Diabetes	13	7
Sensory problem	13	7
Respiratory condition	11	6
Ambulatory problems	7	4
Cancer	4	2
Memory loss/cognitive issues	4	2

\*\*\*Missing data = 8 respondents

*Mental health.* The mental health status of the respondents posed another concern during the relocation effort. Similar to the physical health conditions, many respondents had mental health conditions, such as anxiety or depression, which required on-going medication and medical management. Without access to psychiatrists or physicians, these individuals were at risk of having exacerbated symptoms, which could complicate the reactions that were occurring as a result of the relocation effort. Additionally, several respondents exhibited symptoms of Post-Traumatic Stress Disorder after being relocated. While these symptoms may be associated with other mental health concerns, they still required some degree of treatment and intervention that was not available to the respondents in the weeks following the hurricane. Table 2 provides a summary of the mental health conditions that the respondents reported needed medical and psychosocial intervention.

*Social support systems.* Social supports networks, including family, friends and the church, have consistently been recognized as an essential factor for older African Americans. The same held true for this population with social supports being cited as the most significant loss the sample faced following relocation. Additionally, the loss of support systems was one of the main reasons why a large percentage of individuals wanted to return to their old neighborhood, regardless of the damage caused by the hurricane. As indicated in Table 3, 71% (N = 41) of the respondents did not want to remain in the apartment complexes that they were placed in following Hurricane Andrew. The reasons for why they wanted to return to their homes were centered around three main themes: (1) Missed formal and informal support systems; (2) Substandard living conditions in new apartments; and, (3) Independent activities of daily liv-

TABLE 2. Mental Health Conditions of Relocated Older Adults

<i>Mental Health Conditions</i>	<i>Percentage</i>	<i>N</i>
Depression	17	10
Crying	16	9
Grief/loss reactions	10	6
Increased stress	9	5
Nightmares	3	2
Loss of appetite	2	1
Insomnia	2	1
Headaches	2	1

\*\*\*Missing data = 8 respondents

TABLE 3. Lost Social Support Networks

<i>Social Support Systems</i>	<i>Percentage</i>	<i>N</i>
Family	36	21
Community resources	31	18
Friends	16	9
Physician/Therapist	16	9
Church	3	2

ing could not be performed. It must be noted that the loss of certain social supports, such as family and friends, created a ripple effect to the loss of other social supports like the community resources of transportation and a social service caseworker.

*Missed formal and informal support systems.* As demonstrated above, the respondents were very dependent upon their social support systems not only for socialization, but for medical needs and access to other community resources. One of the greatest concerns expressed by the respondents was that they did not have adequate transportation in the new apartment complex and community. Many indicated that they had no means to get to doctors appointments, grocery stores, or to other needed community resources. Respondents also indicated that with the relocation effort, they were separated from their families. A significant proportion of the respondents indicated that their children and other family members lived in other communities, and the relocation effort meant that they would rarely see them. Others indicated that they did not have friends in the new location, which was making them feel increasingly depressed, lonely, and losing meaning in life.

*Substandard living conditions.* A great concern to the individuals who were involved in this research effort was the substandard living conditions in which these older adults were placed following Hurricane Andrew. As a result of their medical conditions, they were not only at risk from a psychological standpoint living in these conditions, but more importantly, they were at risk physically. The list of reported problems in their new living facilities included "bad tasting water"; lack of privacy; broken air conditioners; problems receiving mail delivery; crowded living areas; no accommodations for physical disabilities; broken furniture and beds; inadequate apartment security; plumbing problems; fire alarms that continually sounded; and holes in the walls. Many respondents indicated that they had attempted to contact public housing managers about the problems with their apartments, but their calls were not returned.

*Inability to perform certain activities of daily living.* It was clearly demonstrated in the results of this study that despite the physical limitations of this group of respondents, they wanted to maintain as much independence as possible. One of the central concerns expressed during the interviews was that even though the respondents had the ability to perform multiple ADL, the conditions of the new apartments made their ability to function at the same levels as they had in their prior apartment inhibited. Many of the individuals indicated that they did not have the facilities to take baths, walk to the grocery store and other community resources, cook independently, or do laundry. These types of losses over time could negatively impact the respondent's mental and physical health status.

## DISCUSSION

Given the events of September 11th, the "El Nino" weather phenomenon (U.S. Department of Commerce, 1992), and the constant risk in some communities for earthquakes, more consideration needs to be given to the methods for relocating older adults following a disaster. As a result of the rapid relocation events following Hurricane Andrew, this study only allowed for a descriptive analysis of findings. However, the importance of the findings and their implications on future relocation efforts of older adults, particularly those who live in poor, urban areas, cannot be underestimated.

The study highlights the importance of strategic planning for older adults during the time of a natural disaster, particularly those who live in poor inner city locations. As a result of the destruction caused by Hurricane Andrew, the respondents in this study were forced to leave familiar and relatively supportive environments and move to an area of the city where they were separated

from their neighborhood infrastructure and support systems that they relied upon most, such as family, mental and physical health providers, social service agencies, and church. With only 28% of the sample receiving treatment for their health care conditions, one can only speculate about the other inadequacies of care that occurred as a result of the relocation effort and the duration of time that it took to remedy the loss of social supports that had occurred.

The study reveals serious questions, issues and implications in relation to the population of public housing older adults and the role of the public housing authorities in responding to their needs following a natural disaster. First, better policies need to be developed between the disaster relief agencies, as well as state and local departments of housing to ensure that older adults, particularly those with poorer health, are relocated to an environment that is conducive to meeting their psychosocial needs. The current disaster plan at the Miami-Dade County PHA, for instance, places responsibility for hurricane preparedness on the older adults (Miami-Dade County Housing Agency, 1992). This policy is completely insensitive to older adults. It is unconscionable that vulnerable populations of older adults were removed from their living environment and placed into substandard conditions in this fashion. This type of economic discrimination is similar to the premise outlined by Skinner (1992) that are commonly seen with African American older populations.

Second, as has been emphasized by other researchers (Magnum, Kosberg, & McDonald, 1985; Silverman & Weston, 1995), contingency plans need to be developed in communities that more frequently encounter natural disasters for how to handle vulnerable older adult populations. Community organizing agencies, governmental officials, and health care professionals need to develop policies and procedures for how to not only remove the older adults from the current location, but to determine temporary locations that would be properly equipped with the services to meet their social, psychological and physical needs. Without proper planning, similar situations to what occurred in south Miami-Dade County will occur in other cities, placing low income older adults in harms way.

Third, staff of the public housing association need more training in understanding the unique needs of older adults, particularly those of diverse racial and ethnic backgrounds. Without the knowledge of the role of social supports, physical and mental health status, and the dynamics associated with the aging process, staff and volunteers are jeopardizing the welfare of this population, not only in a time of natural disaster, but also on an everyday basis. Community agencies that primarily serve older adults should be accessed for additional information and training.

Social workers play a key role in assisting older adult victims. Through the use of psychotherapy, crisis intervention, advocacy, and community referrals

(Dingman & Ginter, 1995), social workers are able to assist in addressing much of the trauma that can occur in the aftermath of a disaster, such as losing one's home, possessions, and even family members and friends. This descriptive, exploratory study indicates, the need for additional knowledge on the variables that lead to successful relocations following a disaster, as well as the types of services, planning, and follow-up that need to occur to ensure that the physical and mental health needs of older adults are met.

#### REFERENCES

- Bolin, R., & Klenow, O.J. (1983). Older people in disaster: A comparison of Black and White victims. *International Journal of Aging and Human Development*, 26, 29-43.
- Brown, B.B., & Perkins, D.D. (1992). Disruptions in place attachment. In I. Altman & S. M. Low (Eds.), *Place attachment* (pp. 279-304). New York: Plenum.
- Cohen, E., & Poulshock, S. (1979). Societal response to mass dislocation of the elderly. *Gerontologist*, 17, 262-268.
- Dingman, R.L., & Ginter, E.J. (1995). Disasters and crisis: The role of mental health counseling. *Journal of Mental Health Counseling*, 17, 259-264.
- Friedsam, H. (1961). Reaction of older persons to disaster-caused losses: An hypothesis of relative deprivation. *Gerontologist*, 1, 34-37.
- Gallagher, E., & Walker, G. (1990). Vulnerability of nursing home residents during relocations and renovations. *Journal of Aging Studies*, 4, 31-46.
- Gerrity, E.T., & Steinglass, P. (1994). Relocation stress following natural disasters. In Ursano, R.J., McCaughey, B.G., & Fullerton, C.S. (Eds.), *Individual and community response to trauma and disasters: The structure of human chaos*. Great Britain: Cambridge University Press.
- Glass, T.A., & Kasl, S.V. (1997). Stressful life events and depressive symptoms among the elderly. *Journal of Aging and Health*, 9, 70-90.
- Grant, P., Skinkle, R., & Lipps, G. (1992). The impact of an institutional relocation of nursing home residents requiring a high level of care. *The Gerontologist*, 32, 834-842.
- Hansson, R.O., Nouelles, D., & Bellorich, S.J. (1982). Knowledge, warning, and stress: A study of comparative roles in an urban flood plain. *Environmental Behavior*, 14, 171-185.
- Johnson, R.A. (1996). The meaning of relocation among elderly religious sisters. *Western Journal of Nursing Research*, 18, 172-181.
- Kaniasty, K.Z., Norris, F.H., & Murrell, S.A. (1990). Received and perceived social support following natural disaster. *Journal of Applied Social Psychology*, 20, 85-114.
- Kilijanek, T., & Drabek, T. (1979). Assessing long-term impacts of a natural disaster: A focus on the elderly. *Gerontologist*, 17, 555-566.
- Knight, B.G., Gatz, M., Heller, K., & Bengtson, V.L. (2000). Age and emotional response to the Northridge earthquake: A longitudinal analysis. *Psychology and Aging*, 15, 627-634.

- Lifton, R., & Olson, E. (1976). The human meaning of total disaster: The Buffalo Creek experience. *Psychiatry*, 39, 1-18.
- Mangum, W.P., Kosberg, J.I., & McDonald, P. (1985). Hurricane Elana and Pinellas County, Florida: Some lessons learned from the largest evacuation of nursing home patients in history: *Gerontologist*, 29, 388-392.
- Massey, B.A. (1997). Victims or survivors? A three part approach to working with older adults in disaster. *Journal of Geriatric Psychiatry*, 30, 193-202.
- Miami-Dade County Housing Agency (1992). Hurricane preparedness plan. Miami: Author.
- Munroe, D.J., Rothman, M.B., Becker, N.E., & Smith, J.M. (1991). *Aging 2000: Projecting the needs of Florida's older population to the years 1995 and 2000*. Miami: Southeast Florida Center on Aging.
- Phifer, J.F. (1990). Psychological distress and somatic symptoms after natural disaster: Differential vulnerability among older adults. *Psychology and Aging*, 5, 412-420.
- Phifer, J.F., & Norris, F.H. (1989). Psychological symptoms in older adults following natural disasters. Nature, timing, duration and course. *Journal of Gerontology: Social Sciences*, 44B, S207-S217.
- Riad, J.K. & Norris, F. H. (1996). The influence of relocation on the environmental social, and psychological stress experienced by disaster victims. *Environment and Behavior*, 28, 163-183.
- Sheehan, N.W. (1987). Aging in place in senior public housing: Past trends and future needs. *Home Health Care Services Quarterly*, 8, 55-77.
- Shelby, J.S., & Tredinnick, M.G. (1995). Crisis intervention with survivors of natural disaster: Lessons from Hurricane Andrew. *Journal of Counseling and Development*, 73, 491-498.
- Silverman, M.A., & Weston, M. (1995). Lessons learned from Hurricane Andrew: Recommendations for care of the elderly in long term care facilities. *Southern Medical Journal*, 88, 603-609.
- Skinner, J. (1992). The experience of African American and other minority elders. *Generations*, 16, 49-52.
- Suggs, P.K., Stephens, V., & Kivett, V.R. (1986). Coming, going, remaining in public housing: How do the elderly fare? *Journal of Housing for the Elderly*, 4, 87-104.
- Thomasma, R., Yeaworth, R., & McCabe, R. (1990). Moving day: Relocation and anxiety in institutionalized elderly. *Journal of Gerontological Nursing*, 16, 18-24.
- Tucker, P., & Pfefferbaum, B. (2000). Predictors of post-traumatic stress symptoms in Oklahoma City: Exposure, Social Support, Peri-Traumatic Responses. *Journal of Behavioral Health Services and Research*, 27, 406-417.
- Tyler, K.A. (2000). The effects of an acute stressor on depressive symptoms among older adults. *Research on Aging*, 22, 143-165.
- U.S. Department of Commerce (2002). What is an El Nino? [Online]. Available at <<http://www.pmel.noaa.gov/tao/elnino/el-nino-story.html>>.