

Older Adults' Responses to Hurricane Katrina

Daily Hassles and Coping Strategies

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Using the stress and coping model, this article explores how older adults prepared for and coped with the aftermath of Hurricane Katrina. Interviews with a sample of 122 displaced adults, 60 years of age or older, provided insights regarding the daily hassles they faced that included securing basic resources, facing communication difficulties, and finding transportation. Positive thinking, modified thinking, staying busy, and spirituality were categories that emerged from the qualitative analysis of 119 participants and explained coping by displaced older adults. Our findings reflect what and how older adults coped with a disaster and have implications for disaster preparedness.

Keywords: *Hurricane Katrina; older adults; coping; daily hassles; recommendations for disaster preparedness*

As Hurricane Katrina destroyed lives, property, and culture, it demonstrated the United States' general lack of preparedness to respond to

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horrific disasters in populated urban areas. Although disasters of this magnitude present serious problems for all members of the community, older residents represent a particularly vulnerable group. Approximately, 73% of Hurricane Katrina-related deaths in the New Orleans area were among persons 60 years of age or older, although older adults comprised only 15% of the area's population (Gibson, 2006).

Older persons face different risks in disasters from those of persons in the general adult population. They are more likely to be challenged by multiple health and mobility problems, inadequate financial resources, lack of personal transportation, and small social networks. During Hurricane Katrina, many frail, older adults thought they would be safer at home than venturing out without assistance or clear direction of where to go (Jenkins, Laska, & Williamson, 2007). Although there is a large volume of literature on disasters, few scholars have focused on older persons at any stage of a disaster—preparedness, response, and recovery (Campbell, 2007-2008; Gibson, 2006). In the current article, we focus on coping strategies used by older adults to explain how they functioned and responded to the daily challenges they experienced in the aftermath of Hurricane Katrina. For this study, we addressed the following research questions: (a) What did older adults do to prepare for the hurricane, (b) What were older adults' experiences, and (c) What strategies did they use to cope with daily life and its related stressors 6 to 10 months after Katrina made landfall?

Disaster Preparedness and Responses of Older Adults

Ideally, preparedness is the best way to cope with a disaster. Following Katrina's wrath and the lack of preparedness for a Category 3 hurricane, data emerged about preparation and perceptions held by older adults should they face such a disaster. Gibson (2006) reported that 13 million adults, 50 years of age and older, indicated that they would need evacuation assistance, and one half would require assistance from someone other than a family member. If a natural disaster were to ensue, Rosenkoetter, Covan, Cobb, Bunting, and Weinrich (2007) found that 15% of their 139 respondents between the ages of 60 and 90 would be unable to evacuate from their homes without assistance. Specifically, they would need assistance with securing transportation, preparing for leaving their homes, and evacuating their pets.

Physical health and psychological barriers inhibited some older adults from adhering to evacuation orders for Hurricane Katrina. Among older adults in three areas of Louisiana—New Orleans, Metairie, and Kenner—approximately

32% had a physical disability and 17% required special equipments to manage their daily lives (McGuire, Ford, & Okoro, 2007). More than 50% of older adults were women, White, unmarried, and more than 75 years of age. Many were in fair to poor health. They lacked transportation, financial resources, and nearby family support to be able to leave their homes. Efficient and appropriate emergency plans and safeguards were not in place to assist vulnerable, older persons during the evacuation process.

Older adults' previous experiences with hurricanes and emotional attachments to their place of residence also influenced their decision to evacuate. As noted by Arbore (2007), many older Gulf Coast residents had survived previous calamities and decided to stay at home because they believed they would be safe again this time. By staying home, they believed they could protect their property and avoid overcrowded emergency shelters. Unfortunately, the magnitude of the storm shattered their beliefs and ultimately forced them to leave their homes and belongings behind in search of immediate safety, shelter, and, for most, long-term solutions to this stressful and life-changing experience. Our study participants employed a variety of coping strategies to address daily hassles brought about by Hurricane Katrina.

Theoretical Framework

The stress process model (Lazarus & Folkman, 1984) frequently is applied to explain significant changes or events that serve as stressors and that influence individual and family functioning. According to this model, the influence of stressors (i.e., life events and chronic strains) is mediated by an individual's appraisal. Appraisals refer to the attitudes and perceptions one has toward the situation, life event, or chronic stressor (Lazarus & Folkman, 1984; Lawton, Moss, Kleban, Glicksman, & Rovine, 1991; Pearlin, Lieberman, Menaghan, & Mullan, 1981; Thoits, 1995).

Individuals employ coping strategies, another dimension of the stress process model, to manage stressful life events and chronic strains. Coping strategies are behaviors and cognitive adjustments that allow one to deal with or control stressful circumstances (Lazarus & Folkman, 1984). To reduce the emotional response to the stressful event, individuals may use problem-based strategies, determining responses or taking action to alleviate the stressor (Pearlin & Schooler, 1978). Perception-focused coping, or changing the meaning associated with a stressful life event, may reduce the stressor and the sense of threat or harm attached to it.

Hurricane Katrina was both a life event and chronic stressor for older adults whose lives are moving slowly from disaster response to recovery. Although we were not able to access the sense of threat that Hurricane Katrina may have posed to older adults, we were able to capture their assessment of their experiences that followed Hurricane Katrina. Based on their accounting, we also were able to take a glimpse at how they coped with and responded to the daily hassles or challenges of life post-Katrina.

Method

Sample

The sample was comprised of 122 displaced older adults, aged 60 and older, who relocated from the New Orleans metropolitan area to the Baton Rouge metropolitan area (70 miles northwest of New Orleans). Older adults were, on the average, 72 years of age ($SD = 8.7$). They were largely African Americans (73%), Protestant (67%), women (67%), homeowners in New Orleans (57%), and retired workers (57%). A majority of the participants reported an annual income of US\$16,600 or less (78%). Almost one half were widowed (42%) and had not completed high school (46%). Most were from the immediate New Orleans area (77%) and resided in their community for more than 30 years (52%). Although most (88%) had returned to see their homes, a little more than one half (57%) of participants were able to recover a few personal items, such as pictures, dishes, and other sentimental things.

Procedure

The research received approval by the Institutional Review Board of the authors' affiliations. We gained access to potential sample members through contacts with local organizations, churches, aging agencies, other senior groups, and trailer communities constructed specifically as temporary housing for individuals displaced by Hurricane Katrina. State and local aging organizations obtained permission from their clients for a member of the research team to contact them. Officials managing the trailer communities granted the research team permission to conduct interviews on site. We posted flyers with information about the project, time, and place of the interviews in key locations (e.g., community room, laundry room, and mailboxes). Fifty-one percent of the older adults interviewed were living in trailer communities. The authors ($n = 3$), graduate students ($n = 16$), and

local professionals ($n = 16$, employees of the state office on aging and area senior centers) conducted face-to-face interviews with 122 displaced older adults between January and June of 2006. Two of the primary investigators provided extensive training and supervision for the interviewers.

The interview comprised of open- and close-ended questions and was informed by the general aging literature and theory underpinning the research. We pretested the interview schedule to ensure relevance and clarity and amended it accordingly. The close-ended questions focused on prior residence, storm preparations, physical and mental health, social support, family functioning, and coping.

Open-ended questions focused on the participant's experience during the evacuation through the time they settled in their current place of residence. This portion of the interview was audio-recorded, transcribed by a trained professional, and verified by members of the research team to ensure accuracy. Interviewers were trained to give participants ample time to respond to six questions about the evacuation process and follow-up probes for clarification of points made by participants. Participants were asked the following questions:

Hurricane Katrina hit on August 29, 2005. Tell me about life during the evacuation. We will use this calendar to keep track of what happened during this time. When did you leave your home? Where did you go first? Who went with you? How long did you stay there? What was it like? What did you think about while you were there?

These questions were repeated for each move. Study participants had opportunities to elaborate on and clarify their answers during the course of the entire interview. For most, the entire interview process took 60 to 90 min to complete.

Qualitative Analysis

The research team analyzed the responses of 119 participants to the open-ended questions (3 participants did not complete this portion of the interview). Analyzing each line of the transcripts, the research team of graduate students and the first author posed the following questions when coding the data: How did the disaster influence the lives of displaced older adults? How did they function or cope with their lives from the evacuation onward? The initial categories identified were Impact of Hurricane Katrina, Coping and Functioning, and Hopes and Dreams. The current

study, however, focuses on data derived from the initial coding of the Coping and Functioning.

After the line-by-line analyses were complete, the team critically examined the original transcript regarding the Coping and Functioning of displaced older adults. Questions posed centered on how displaced older adults coped with life after Katrina. To ensure that the context remained consistent, team members were asked to answer as many of these questions as possible: What? When? Why? How? Who? For example, coders consistently agreed that many respondents coped by leaning on their spirituality. They prayed and demonstrated other acts of faith. Manifesting positive attitudes referred to responses that reflected being thankful. Team members verified each other's work, discussed any coding differences, and resolved coding discrepancies or differences to ensure trustworthiness of the data, enhancing the rigor of the analysis and dependability of the findings (Anfara, Brown, & Mangione, 2002).

The storyline that explained how displaced participants coped with this historic and horrific disaster emerged as the team compared the original transcripts with the coded data. Each team member critically reviewed the transcript and the coded data under the initial category of Coping and Functioning and posed this question to those data: How did Hurricane Katrina influence the way in which older adults coped with life following this disaster? Daily hassles after Hurricane Katrina emerged as a separate category from coping, describing the stressful experiences of displaced adults in the aftermath of Katrina. Working in teams, the data were verified. Research team discussions were held until each research team member agreed on the codes. Consequently, coping with the daily hassles after Hurricane Katrina explained what they faced on a daily basis. Coping in the aftermath of Hurricane Katrina described how individual older adults adjusted to their post-Katrina life. Together these themes provide insights into how older adults responded to and coped with this disaster.

Findings

Coping With the Daily Hassles After Hurricane Katrina

Coping with the daily hassles after Hurricane Katrina conceptualized the stressors that influenced the lives of older adults and what they coped with 6 to 10 months after Hurricane Katrina made landfall. In the aftermath of a disaster, they had to find basic resources. As found in Table 1,¹ study participants also faced environmental, communication, transportation, and financial

Table 1
Coping With Daily Hassles After Hurricane Katrina (n = 119)

Themes	n (%)
Basic resources	52 (44%)
Food (n = 12), water (n = 9), clothes (n = 1)	
Shelter (n = 40)	
Difficulty finding housing during the evacuation (n = 21)	
Difficulty securing housing after the evacuation (n = 6)	
Loss of electricity during the evacuation (n = 19)	
Environmental challenges of evacuation housing	23 (19%)
Crowded homes and shelters (n = 22)	
Crowded bathrooms (n = 5)	
Poor sleeping conditions (n = 2)	
Communication challenges	15 (13%)
Unable to use cell or land-line phone, no way to contact family (n = 12)	
No communication, unable to call anyone, no clue of what was going on (n = 1)	
Loss of mail services (n = 1)	
Loss of radio and television services, inability to get news reports (n = 2)	
Transportation	27 (22%)
<i>Transportation concerns during the evacuation</i>	
Traffic jam during evacuation (n = 9)	
Lengthy travel time during evacuation (n = 10)	
Long route used to evacuate (n = 2)	
<i>Problems traveling back to New Orleans</i>	
Lengthy travel time and costly expense of travel to New Orleans (n = 3)	
Problems finding parking in New Orleans (n = 1)	
No transportation to return to New Orleans (n = 1)	
Long wait time for buses (n = 4)	
<i>Transportation challenges in Baton Rouge</i>	
Insufficient or a lack of public transportation in Baton Rouge (n = 7)	
Cutting back on public transportation (n = 3)	
Financial strife	38 (31.9%)
<i>Financial stress associated with the evacuation</i>	
No money to evacuate or high costs associated with evacuation (n = 4)	
High cost of temporary housing (n = 2)	
Unable to get money (n = 2)	
<i>Daily living</i>	
Checks lost in mail or delayed (n = 3)	
Higher living expenses (n = 17)	
Living expense and having a fixed income (n = 15)	
<i>Costs and challenges associated with rebuilding</i>	
Continuing to pay bills for New Orleans residence (n = 5)	
No insurance or not enough insurance coverage to rebuild (n = 7)	

(continued)

Table 1 (continued)

Themes	<i>n</i> (%)
High cost of rebuilding and starting over (<i>n</i> = 7)	
Risk of foreclosure by mortgage company (<i>n</i> = 1)	
Obstacles to returning home or rebuilding	30 (25%)
<i>Returning home</i>	
Levees not repaired (<i>n</i> = 2)	
No sign of life (<i>n</i> = 2)	
No electricity in parts of city (<i>n</i> = 4)	
Removing debris and gutting home (<i>n</i> = 11)	
Closed or inoperable businesses (<i>n</i> = 10)	
Commuting back and forth (<i>n</i> = 6)	
<i>Challenges related to rebuilding</i>	
Having legal identification and official documents (<i>n</i> = 5)	
Waiting on FEMA authorization or assistance (<i>n</i> = 5)	
Working with contractors (<i>n</i> = 8)	
Problems negotiating with insurance companies (<i>n</i> = 12)	
Meeting with agencies and organizations (<i>n</i> = 12)	
Property not suitable for a trailer (<i>n</i> = 1)	

Note: FEMA = Federal Emergency Management Agency.

challenges. They also were confronted with obstacles in rebuilding their lives and recovering from their losses.

Basic resources. Focusing on their primary needs, almost one half (43.7%) of 119 older adults mentioned issues related to basic resources, such as food (*n* = 12), water (*n* = 9), and clothing (*n* = 1). The loss of electricity (*n* = 19) further compounded the stress of the evacuation and disaster. Housing (*n* = 40) was of concern to our participants and emerged in the works of others (Croom, Jenkins, & Eddy, 2007a, 2007b). Initially, they could not find temporary housing in hotels in the Baton Rouge area or elsewhere.

In our sample, 21 displaced older adults reported having problems finding shelter during the evacuation. Even after the initial crises subsided, 14 reported having few openings in the trailer communities, waiting for a trailer to become available, and not being able to find housing in Baton Rouge or other locations. Two married older adults—an 83-year-old and a 67-year-old—were concerned about finding a place to live when Federal Emergency Management Agency (FEMA) housing support ended. Based on the close-ended data, about 20% of older adults were physically disabled. A disabled widow reported to have waited on a trailer, and two others said

they took whatever housing was available. Their varied experiences remind us that disaster planning and recovery must incorporate housing for citizens with disabilities (O'Brien, 2003) and temporary housing appropriate for not only the days immediately following a disaster but also for months and, perhaps, years following a disaster (Administration on Aging [AOA], 1993; Croom et al., 2007a, 2007b; McGuire et al., 2007; Olshansky, 2006).

Environmental challenges of evacuation housing. A total of 23 respondents mentioned environmental challenges, such as crowded homes and shelters, crowded bathrooms, and poor sleeping conditions. The interwoven concerns that permeate their daily hassles are captured by the words of Joan, a 67-year-old, African American woman:

Do you think I want to stay in here [in the trailer community]? It is hard to find somewhere [to live], and I have filled out several applications. I would like to move out there with my sister and get an apartment. So, she got all the information and she would let me know if she had something available. They have a Habitat for Humanity, so I filled out an application there also. I'm hoping that some of it will come through, because I think, I am going to move back to New Orleans. The rent is so high, starting at US\$700 to US\$800 a month. I said, "I am on a fixed income that is my check." Who will pay for your utilities [and] the food—because I like to eat? It costs me around US\$200 a month to feed myself . . . You tell that to the Food Stamp people. You make a nickel more than your rent money . . . Who will pay for the propane? That is another thing . . . Some people get three meals a day everyday anyway. [They are] getting food, water, and a drink—three times a day. It was good while it lasted. [The on-site kitchens were closing and evacuees had to take care of their own meals]. I just liked it in the morning. I would have to go to the grocery [store] and get some bananas or something. I go and get a couple of bananas every morning. I will have that [banana] and a juice before I take my medicine. If I take my medicine without juice, I get sick.

Living without communications. A total of 15 older adults indicated that they were unable to contact anyone because their cellular and landline phones did not work. The lack of working landline telephones and cellular communications continued during the first weeks after the storm. One person described the communication challenge as follows:

I tried the regular old phone at the service station . . . I could not reach my sister, so here I am panicking. Sometimes it was taking 13 hr to get through, to get a phone line. That's how bad the phone service was.

Likewise, a woman separated from her spouse further elaborated on the plight of communication:

You know, we could not use cell phones for 4 days. My children could not contact me. The day after the hurricane, I was able to call my daughter and tell her that everything was okay. Then the next day, when the water came, for 3 days I could not contact anybody. My cell phone didn't work. I could not get in touch with anybody. My children were going ballistic [severely anxious and fearful] as you can imagine.

She also could not get radio or television services, which were primary sources of information during the aftermath of the storm. The lack of local infrastructure and living without communication services—mail services, news and radio programs—contributed to the chaos and inability of many to complete the initial recovery processes after the disaster.

Establishing reliable communication networks was a recommendation of John Stokesberry, executive director for the Alliance for Aging, when Hurricane Andrew devastated Dade and Monroe Counties in Florida and landline phones were inoperable (AOA, 1993). For Katrina, 41% of our participants had cellular phones, but the circuits were overloaded in Baton Rouge and surrounding areas. Towers also were inoperable in the New Orleans area. Ineffective communication networks will inhibit rescue efforts, especially for persons with injuries and preexisting health problems or those trapped in their homes.

Transportation. A total of 27 older adults (22%) revealed problems with transportation that included three primary areas: transportation concerns during the evacuation, problems traveling back to New Orleans, and transportation challenges in Baton Rouge. Transportation challenges found in our data highlight the need to establish regional transportation options prior to the disaster (Hyer, Polivka-West, & Brown, 2007) and following a disaster. A major traffic jam was reported during the evacuation ($n = 9$), and it made the evacuation process long and tedious. One older adult mentioned not having transportation to New Orleans. If transportation was available, the travel time was lengthy ($n = 3$) and cost was expensive ($n = 3$). Having to wait on buses was another daily hassle mentioned by 4 older adults.

Unlike New Orleans, Baton Rouge did not have a public transportation system to accommodate a large number of citizens without personal vehicles. In post-Katrina days, participants noted poor or no public transportation. The city of Baton Rouge was planning to cut back on public transportation

services that had been extended to accommodate the increasing population of citizens without personal vehicles. A 65-year-old divorcee indicated that the only transportation available to her was services from the hotel she was staying in to a local hospital. It also was a hassle to commute back and forth between Baton Rouge and the New Orleans area to manage unresolved business in the crescent city. These findings reinforce the need for disaster plans to address the diverse transportation needs of citizens, including cities directly affected by the disaster as well as the destination cities that offer refuge to displaced persons. The plight of New Orleans residents calls for prompt changes in evacuation and response plans for urban residents, especially older adults living in New York City, Washington, D.C., Baltimore, and Miami, or cities that have large populations without automobiles (Hess & Gotham, 2007).

Financial strife. The review of financial strife would be incomplete without data from the interview. About 20.5% of our sample indicated that their income decreased because of Hurricane Katrina, 67% reported that their incomes remained the same, and fewer than 7% reported an increase. Data were missing for another 6% of study respondents. The proportion of older persons with decreased incomes is lower than that reported in another study in which 52% of adults who were 18 years of age and older and living in Orleans, Jefferson, Plaquemine, and St. Bernard parishes. Their financial situation was worse following Katrina (Kaiser Family Foundation, 2007). Many of our respondents drew their incomes from Social Security and retirement funds rather than employment, which may explain our findings compared to that of Kaiser Foundation.

Based on qualitative data, Hurricane Katrina also created financial strife in the lives of older adults ($n = 38$). Financial stressors regarding evacuating, managing daily living, and rebuilding explained the financial stress of older adults displaced by the storm. The evacuation proved stressful because some did not have money. Other older adults shared having additional housing, food, clothes, and transportation expenses; eating out also was a financial stressor. Because their hometown was an uninhabitable city, the high cost of using a hotel as a temporary housing became a prolonged expense. Even if they had money, some faced inoperable banks and bankcards. There were delays in receipt of Social Security checks because of their relocation.

Daily living had its own hassles. Delayed or lost checks were a hassle ($n = 3$). Simply not having enough money to pay their daily living expenses explains one aspect of financial strife ($n = 17$). Older adults expressed

concern about higher living expenses (e.g., rent, food, and utilities) that now included propane tanks and padlocks to keep their fuel safe from thieves. Financial stress for others was living on a fixed income with higher living expenses ($n = 17$).

The costs associated with rebuilding also made clear the financial stress of displaced adults. Higher labor costs had to be factored into the household budgets of persons in our sample. Some displaced citizens were paying electric and phone bills in New Orleans while residing in Baton Rouge ($n = 5$). The lack of insurance or insufficient coverage enhanced their financial stress ($n = 7$). Just the cost of rebuilding and starting over was a financial battle for some older participants ($n = 7$). A 63-year-old married woman and her husband revealed that 18 months of support from FEMA was not sufficient to fix their home:

It [will] take more than 18 months to fix our house up [even] with the financial help because we did not have insurance. FEMA is helping us out, but down there, even as cheap as electricity is to wire your house, it [takes] US\$5000 just to wire it. That is the cheapest one . . . It might take about 6 months or more before they can get to your order.

The mortgage company gave one older adult 90-day notice before their home would be placed in foreclosure.

Obstacles returning home. Identified obstacles to returning home or rebuilding were another major hassle for 30 older adults after Hurricane Katrina (25%). A total of 24 of 30 displaced older adults mentioned challenging interactions with contractors, companies, or agencies. The levees were in disrepair. New Orleans appeared lifeless. Major parts of the city were without electricity. The city needed to be clear of debris and other symbols of destruction, chaos, and lifelessness. Those who owned homes in New Orleans were waiting for the electrical services to be restored and other repairs to be made. Although the government was expected to come to their aid, some were getting their houses ready by removing the debris or completing the gutting process. Commuting back and forth to work on or complete home repairs created another hassle as older adults sought to reassemble their lives.

The infrastructure of New Orleans remained problematic because grocery stores, hospitals, banks, courts, police departments, health care professionals, and other industries were closed. Participants were concerned that the court system, police departments, and health care systems were not operational.

Attorneys and bankers were not available; some displaced older adults were without adequate representation and resources. Many accepted having to do everything themselves, as in the case of Zoe, a White homeowner who was 74 years of age:

[It is] a lot of work, straightening out [things]. Cut the trees. Dig up stones. The land was not even. We bought dirt to even out the land. [We dug] a bigger shed around the pump; we had to rework the pump. The pump was dead. We had to have this man come out and pump it back out. We had to put a septic tank in, which, when we bought the land, they told us we didn't have to do anything. Well, come to find out, you had to do everything. So, we had to put a septic tank and we're still working on our land.

In addition to preparing one's property for a trailer, negotiations with contractors, insurance companies, and agencies or organizations were among the daily hassles that emerged from the data. Not having important papers, such as Social Security cards, wills, trusts, copies of deeds and mortgages, and homeowners or health insurance policies slowed the recovery process. Waiting on FEMA to assist with their trailers (e.g., putting in electricity), waiting for FEMA to authorize other matters, or not receiving assistance from FEMA were among the challenging interactions conveyed by five older adults.

Their interactions with contractors ($n = 8$) proved stressful, especially for those who needed their home gutted or who needed contractors or laborers to complete previously started home repairs. Long waiting lists and extended estimated repair time was a reality of life after Katrina. As one couple told the interviewer,

Our contractor told us it would take 6 to 9 months to have the house repaired, and there's no way we could do that. But, that is the lifestyle now. But, it's just a hard guess because with the money and the contractors are so busy, you know. They have a lot of other [customers]. They have everything in lists. They have a list of people.

Older adults also had problems negotiating with insurance companies and understanding the terms and conditions of their policies ($n = 12$), leaving them to perceive these companies as being unhelpful. One participant also found dealing with the Social Security Administration to be problematic. The days and months following Katrina were woven together by daily aggravations and stressors.

Coping With the Aftermath of Katrina

We turn our attention to how older adults coped with challenges imposed on them by Hurricane Katrina. They were among the hardest hit by two hurricanes—Katrina and Rita (Dart, 2005); therefore, learning how they functioned in and after this disaster has important implications for future research and disaster planning. How did they cope with this life-threatening, life-changing event? What coping strategies did older adults adopt? Qualitative responses shed light on these critical questions.

Displaced older persons prepared for the hurricane by having water and nonperishable foods (58%), batteries (50%), transistor radio (43%), and cellular phone (41%). Fewer put gas in their cars, identified the safest place in the house, boarded up windows, had a generator or travel trailer, or determined the safest route for evacuation. More than 60% of our sample left before the storm, which served as a precautionary method in preparation for Katrina.

In Their Voices—Coping With the Aftermath of Katrina

We examined older adults' responses to questions regarding their experiences beginning with the evacuation all the way through the time that they settled in their present dwelling. Four categories explained their coping in the aftermath of Katrina: positive attitudes, modified thinking, spirituality, and staying busy. Table 2 summarizes the themes and subthemes that describe coping strategies and our participants' experiences of coping with daily hassles as a result of Katrina.

Positive attitudes. This strategy refers to an overall sense of thankfulness, gratitude, and hopefulness, representing active coping by 34 respondents (29%). Changing their perception of the stressful life event (Lazarus & Folkman, 1984), displaced older persons were thankful to be safe and alive and to have received money and other forms of support from churches and volunteers. They were grateful to have temporary housing, food, water, clothes, a warm shower, and good health. Five participants were thankful to have had limited damage to their homes, and two were grateful that their families were alive. One Black married older adult's reflections embraced the notion of gratitude this way:

They are beginning to adjust. You know, like I told them, we just, we just have to pray and accept what happened. We are lucky. We are still alive, you know, and that's the important part. We have a second chance.

Table 2
Coping With the Aftermath of Katrina (*n* = 119)

Themes	<i>n</i> (%)
Positive attitudes	34 (28.5%)
Maintained a thankful and grateful attitude (<i>n</i> = 32)	
Maintained a hopeful disposition (<i>n</i> = 4)	
Modified thinking	35 (29.4%)
Focused on moving on (<i>n</i> = 8)	
Rested in acceptance (<i>n</i> = 13)	
Focused on trying to make it, surviving, managing it (<i>n</i> = 10)	
Recognized being alive (<i>n</i> = 2)	
Adjusting to life after Katrina (<i>n</i> = 5)	
Held a positive view toward the Katrina tragedy (<i>n</i> = 1)	
Staying busy	61 (51%)
<i>Activities</i> (<i>n</i> = 37)	
Writing music (<i>n</i> = 1)	
Doing chores (<i>n</i> = 13)	
Shopping (<i>n</i> = 9)	
Doing crafts—knitting and crocheting (<i>n</i> = 3)	
Exercising and teaching dance (<i>n</i> = 6)	
Reading, doing crossword puzzles (<i>n</i> = 4)	
Fishing and gardening (<i>n</i> = 2)	
Working (<i>n</i> = 3)	
Volunteering and helping others (<i>n</i> = 7)	
<i>Socializing</i> (<i>n</i> = 38)	
Talked with relatives and friends (<i>n</i> = 17)	
Continued to interact and visit others (<i>n</i> = 21)	
Spirituality	44 (37%)
Prayed and meditated (<i>n</i> = 25)	
Sung songs (<i>n</i> = 2)	
Read bible (<i>n</i> = 3)	
Exercised faith in God (<i>n</i> = 18)	
Participated in spiritual activities (<i>n</i> = 17)	

Other examples of thankfulness include the voices of several study participants:

“I guess I have got to thank the man upstairs,” stated a White 62-year-old disabled man.

“I was by myself, and so they didn’t know where I was. But, thank God I was living,” shared a 65-year-old Black woman and homeowner with a high school degree.

“We are just grateful you know,” commented an 86-year-old, Black retired educator.

"I am blessed, I feel blessed," stated a Black administrative assistant and homeowner.

A 97-year-old widow shared, "I just was thanking God. All I said thank you Lord that you brought me out of it safely and did not harm me at all . . . I never worry about it, not once."

Making new choices also symbolized the positive attitudes held by persons displaced by Hurricane Katrina. Many participants had a positive perspective of Hurricane Katrina. For example, one study participant opted to live in the moment, refusing to evacuate because she had enjoyed 69 years on earth. Yet, Hurricane Katrina provided the opportunity for a 64-year-old woman to move out of a stressful family and living situation. By controlling the meaning of their experiences (Pearlin & Schooler, 1978) and being positive, older adults were able to cope with the daily hassles of their current lives.

Modified thinking. Older adults adjusted and changed their views toward the circumstances that resulted from Hurricane Katrina ($n = 35$). They changed their thought processes and focused on moving on, demonstrating active coping strategies (Pearlin & Schooler, 1978). Moving on, accepting the situation, and having a determined spirit were three subthemes that further explained this theme. Make it through, try to make it, and keep going symbolize the reasoning manifested by older adults. "We were down there [in Baton Rouge] almost 3 months. I try not to think about what it did, but I know that you have to try to move on," said a 68-year-old divorcee. The goal of moving on likewise was expressed by a 75-year-old African American divorcee: "Well, I try to keep going, so I do not think about it, you know. I have met some friends and I have been going to church with them. That's what I miss mostly, because I am a churchgoer. I looked . . . that was my pleasure, really going to church." Making the best of the situation, taking it as it comes, and thinking of others exemplifies assertive coping. They also coped by recognizing that they were still alive and adjusting to life after Katrina. Having the capacity to handle things or manage their life plainly explained how displaced older adults modified their thinking to cope with life after the disaster.

Similar to Greene's (2006) case study on three older adults, the desire to survive was demonstrated by an 86-year-old man who expressed his capacity to rebound from a tragedy: "I am a survivor. I'm going to make it." An African American man with a master's degree pointed, "So, we are going to make it. Yes, and we'll make it through. I mean, I don't think there's any question about it." The upbringing of a 67-year-old Black woman equipped her to address problems and to manifest her determined spirit:

I do not dwell on negative things because I was brought up in a positive household . . . I had wonderful parents and they were positive . . . It's not like you're trying to block out things. You look at the situation. You name it for what it is. It was a disaster . . . So, I mean it's not going to help me standing in here and crying, pulling my hair. So, I'm going to go to the next step, to take care of the problem. That's the way I was brought up. If there's a problem, what do you do? You try to take care of it. If you can't, get some help. That is the way I was brought up; so, that is all I know.

Staying busy. Displaced adults used distractive or passive coping behaviors to function in their new lives. They engaged in activities or socialized with family, friends, and others ($n = 61$). Older adults also stayed busy by writing and playing music, fishing, gardening, exercising, teaching dance, and walking. Crafts, such as knitting or crocheting, also were used to fill their days. They played cards or bingo. A proud 64-year-old gardener with a strong desire to live had this to share with a research team member:

Well, if you look at the side of my trailer over there, I have a little garden, and I have a whole bunch of stuff in that garden and I work in it everyday. I keep busy. I do not want to just sit down and roll over. I want to keep active. And then sometimes I just grab my little taxi cab right here and go down there to the bus stop and go to Wal-Mart. I just walk around up there.

Older adults focused on working, doing their daily chores, or volunteering and helping others to keep themselves occupied. They coped by talking to and socializing with family, friends, and others. In addition to their spiritual activities, being around people, having friends over, meeting new people, making new friends, getting out in the community, and participating in senior center activities helped them to cope with life in the months after Hurricane Katrina. Their words reflect how they manage to keep busy, a form of passive coping:

"I go to work, come home, and enjoy my family," replied a 61-year-old homeowner who worked as an administrative assistant.

"I just work most of the time and talk to my children. They are helping me with my house and my insurance," indicated a 68-year-old homeowner and divorcee.

"I exercise everyday," shared an 89-year-old retired health care practitioner.

Given that 57% of our respondents were retired, staying busy might have been a conscious effort to preoccupy their time, which was further compounded by

the disaster. It may not be a product of poor coping but of healthy retirement, which makes it an important research quandary.

Spirituality. Spirituality reflected active and passive strategies used to cope with life post-Katrina ($n = 44$). Actively taking on a spiritual vantage point helped older adults to function in the months and days to follow. An African American widow who was 73 years of age had this vantage point: “Oh it made us closer to God, that’s the first thing. We appreciate life more and material things don’t mean anything anymore.”

Spirituality reflected active coping. Participants stood firm in their faith and held on to their religious convictions. They were convinced that God would take care of them. Others put things in God’s hands and believed that God did not bring them this far to leave them. Older adults trusted God. One 69-year-old, African American divorcee said, “Well, I don’t fall apart, you know. When things are going on like that, I just trust God. I thought it was going to be alright because I thought I would be able to go home.” Yet, a single older adult had this to share:

I was kind of scared, but God don’t want you to be scared. He wants you to trust him. So, after I got out of all that water, I was satisfied. I was not satisfied all that way. But, I really got satisfied when I got here, and got my trailer.

People coped by participating in spiritual activities, in some ways a passive form of coping. They diverted their attention to spiritual activities that rendered them hope, such as attending church or mass, Bible studies, and prayer services. Spirituality included praying, meditating, singing songs, and reading the Bible. Singing in the choir helped some members of our sample cope with life after Katrina. Hurricane Katrina was a wake-up call for an African American divorcee. She knew “it was a disaster, but sometimes God has to shake us up too.” Given that nearly three fourths of the sample was African Americans, we were not surprised by the role that spirituality played in their functioning. Spirituality or religiosity characterizes coping approaches used by Blacks and their families (Agate, Zabriskie, & Eggett, 2007; Billingsley, 1992; Boulin Johnson & Staples, 2005; McAdoo, 2007).

Conclusions and Recommendations

Hurricane Katrina and the conditions and circumstances that followed its wake proved a major life stressor and source of chronic stress. Two

categories, coping with daily hassles after Hurricane Katrina and coping with the aftermath of Hurricane Katrina, explained what and how older adults managed life following the storm and flooding. Older adults in our sample coped with daily hassles that impeded their capacity to acquire basic resources (e.g., food, water, clothing, and housing) and challenged them to cope with overcrowded homes and shelters, crowded bathrooms, and poor sleeping conditions. In addition to financial strife, they managed situations in which communications, businesses, and transportation options were inadequate or nonexistent. Many desired to return home but faced additional daily hassles and stressors, including levees in disrepair and a powerless and lifeless city full of debris. Transacting business was stressful if one failed to have official documents and identification. Their stress included negotiations with FEMA, insurance companies, contractors, and agencies and organizations.

To manage the daily hassles and stressors, older adults engaged in active and passive strategies. They held positive attitudes and modified their thinking, actively or purposefully changing the meaning or appraisals of Katrina (Lazarus & Folkman, 1984; Pearlin & Schooler, 1978). To occupy their days, many older adults stayed busy, involving themselves in activities, working, or socializing. Many study participants evoked their spiritual beliefs as a means of coping, holding firm to their religious convictions and believing that God would provide and take care of them. They engaged in religious, church-related activities to distract them from the daily stressors of their extended disaster recovery process, a passive coping approach.

Our findings suggest a general pattern of stress and coping among older adults that can inform disaster planning for older populations both before and after such disasters. Disaster plans should include support to address basic resource allocations, communication networks, differential transportation options, and other support services. There is an ongoing need to locate potential emergency shelters and evacuation routes prior to a disaster. Although 60% of displaced older adults evacuated before Katrina made landfall, more than 44% faced daily hassles, such as securing foods, water, shelter, and other recovery needs. Plans may also need to include temporary housing for extended periods when disaster response and recovery are elongated.

Other aspects of disaster planning relate to an awareness of displaced persons' needs and coping mechanisms. First, emergency kits should include more than food, first-aid kit, and supplies; these kits must include copies of Social Security cards, driver's license or state identification cards, wills and trust, and various insurance papers. Older adults need to be included in evacuation planning (Gibson, 2006; Greene, 2006), and community

programs and policy makers need to be informed of the types of coping strategies frequently used by older adults, including those from diverse racial and ethnic backgrounds. Older adults used perception-focused coping strategies (Pearlin & Schooler, 1978), meaning they adjusted their thinking, manifested positive attitudes, and relied on their spirituality. Including them in disaster plans would ensure culturally competent disaster-planning processes and delivery of mental health services.

Effective communication and collaboration networks serve several facets in disaster preparedness. Networks need to be developed to enhance response effectiveness, such as advance registration of older adults (O'Brien, 2003) at senior centers, social service agencies, faith-based institutions, and health care providers. The use of these collaborations and resources is critical when communication networks fail. Effective networks will assist with identifying missing persons, locating their latest address, and supplying contact information for family members or caretakers when disasters or crises ensue. Due to disruptions in landline and cellular telephone services, databases are needed to track victims of disasters for safety, health, and social reasons. For example, medical records need to follow displaced persons from destination to destination. These files should also include information about disabled older adults.

It is well established that many older adults need assistance with evacuation, including transportation and other community services (Gibson, 2006; Hyer et al., 2007; Rosenkoetter et al., 2007). Hurricane Katrina demonstrated that transportation needs are not one dimensional. Cities like New Orleans and New York City have extensive public transportation systems, but most others do not (Hess & Gotham, 2007). When selecting emergency shelters, emergency planners must take into account resources, disruptions in formal services, and the profile of citizens with or without personal vehicles.

Financial challenges and other social services programs for short- and long-term disaster assistance must be incorporated into preparedness plans, especially for older adults on fixed incomes. In addition, obstacles to recovery can be placed in preparedness plans. For example, omitting the daily hassle of transportation has implications for the recovery efforts, especially when displaced persons have to commute back and forth for work and/or to meet with FEMA representatives, insurance agents, and contractors. Based on our data, older adults would have benefited from assistance with negotiating with insurance agencies and other organizations. Disaster plans may need to come up with coping strategies for situations in which disasters destroyed banks, businesses, and other infrastructural elements of a city.

Note

1. The findings are not based on frequencies but according to the storyline that emerged in the data.

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