Chapter 12

When Neighborhoods Are Destroyed by Disaster: Relocate or Return and Rebuild?

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Introduction

The 2005 Atlantic hurricane season brought two category 3 storms, Katrina and Rita, within 4 weeks of each other. These treacherous hurricanes left a trail of immeasurable losses across the US Gulf Coast. When homes, neighborhoods, and communities are destroyed by disaster, survivors must relocate to habitable geographic regions. Depending on the individual and his or her circumstances, temporary or permanent new living arrangements become a necessity. Following a disaster, uncertainties driven by environmental destruction may be overwhelming and possibly frightening, although survivors find traction to move ahead despite the hardships of displacement and catastrophic damage to homes and communities. Understanding how environmental factors affect personal as well as community-wide recovery in the years after a disaster is a timely and urgent challenge for social scientists. Greater awareness and insight into disaster survivors' experiences may

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be key to the development of successful interventions to lessen suffering in future storms and natural disasters.

In this chapter, we focus on the role that the post-disaster environment plays in long-term recovery for Hurricane Katrina and Rita survivors at least 5 years after these events. Our goal is to present an insiders' perspective on post-disaster adjustment based on the experiences of people who relocated permanently and those who returned to their storm-devastated homes to rebuild and re-establish lifestyles. We begin with an overview of Bronfenbrenner's (1979) ecological systems theory which has been adapted to study the psychological impact of natural disasters (Kilmer & Gil-Rivas, 2010; Weems & Overstreet, 2009); see also Chap. 10, this volume). An ecological systems approach, among other contextual theories, provides a useful conceptual framework for thinking about individuals nested within the broader social contexts of family, community, and cultural traditions and heritage. In the second section, we describe our qualitative methodology, which was modeled after our earlier work with indirectly affected older adults in Louisiana Healthy Aging Study (LHAS) 4–14 months after the storms (Cherry et al., 2011; Silva Brown et al., 2010. This chapter is based on interviews conducted with directly affected coastal residents between 5 and 7 years after the 2005 storms. All had experienced catastrophic hurricane damage and losses, which are reported elsewhere (Cherry et al., 2015). Here we present two emergent themes that provide insight into the frustrations and forced environmental changes after the 2005 storms. The remaining themes are presented in Chap. 13 (this volume). In the last section, we focus on adjustment and new life circumstances in the years after natural disaster.

Conceptual Framework and Literature

Nested Ecologies

Recent theorizing on post-disaster psychological reactions from a child developmental perspective traces its origins to Bronfenbrenner's (1977, 1979) ecological systems theory, which offers an integrative conceptual framework for studying factors that affect adaptation and well-being after a disaster (Kilmer & Gil-Rivas, 2010; Weems & Overstreet, 2009). In brief, the ecological systems theory holds that children function within multiple nested contexts or ecologies that vary in proximity to the individual. Proximal ecologies include family, school, and peers, among other influences close to a person. Distal ecologies include the farthest sources of influence, such as government, sociocultural values, and beliefs. Proximal and distal ecologies are assumed to exert bidirectional influence, where changes in one ecology may influence another as well as an individual's development (see Chap. 10, this volume).

Bronfenbrenner's original formulation of ecological systems theory, which emphasized multiple nested ecologies at increasing levels of abstraction, later gave

rise to his bioecological model with greater focus on characteristics of the individual over time as a critical determinant of development (Bronfenbrenner & Morris, 2006). An ecological framework for disaster research, which emphasizes proximal and distal factors that affect well-being in children and families, has motivated research on topics as diverse as childhood wellness and community resilience after disaster (Pfefferbaum, Pfefferbaum & Norris, 2010) to the emotional consequences of destruction and loss after Hurricane Katrina for disaster-exposed youth in New Orleans (Weems & Overstreet, 2009; for review, see Chap. 10, this volume) and coping behaviors and well-being among Katrina-displaced older adults (Kamo, Henderson, & Roberto, 2011). Here we adopt an ecological systems perspective to guide our work on psychosocial consequences of Hurricanes Katrina and Rita for a primarily older sample of adults directly affected by these storms.

Disrupted Ecologies and Psychosocial Consequences

On August 29, 2005, residents of Louisiana held their collective breath in anticipation of the massive, category 5 hurricane churning in the Gulf of Mexico. Hurricane Katrina (and Rita, 1 month later) was on an unstoppable path of destruction. Louisianans in the coastal parish (county) of St. Bernard, just 5 miles southeast of the great city of New Orleans, were sent into a flight of panic, shock, and fear as the local government issued a mandatory evacuation order just hours before the storm made landfall.

Without ample time to prepare for evacuation, many people faced the reality of staying behind to bear witness to Katrina's destruction of their homes, community, and way of life. Residents who evacuated in advance of the storm avoided having to experience Katrina's wrath firsthand, yet most witnessed the storm's devastating effects via television or radio transmission. In nearby Baton Rouge, LA, an estimated 200,000 evacuees arrived overnight from storm-ravaged coastal areas, resulting in immediate infrastructure challenges and disruptions in daily life (Cherry, Allen, & Galea, 2010). These storms brought many challenges at the time, although the adverse effects were longer lasting than initially foreseen. Those who experienced the hurricanes were fully aware that normal living would be temporarily suspended, but they did not know it would be completely lost. Hurricane Katrina spared no one in her comprehensive swath of destruction. Homes, neighborhoods, schools, shopping centers, businesses, places of worship, and entire geographic regions were destroyed (Cherry, 2009).

In the present research, we compared former residents who relocated permanently to non-coastal communities after the 2005 storms and current coastal residents who had returned to rebuild and re-establish lives in St. Bernard and Plaquemines parishes in south Louisiana. Based on an ecological systems perspective, we reasoned that proximal and distal ecologies would be impoverished in areas where community resources (e.g., social networks, schools, businesses, places of worship) were severely damaged or destroyed by the storm. Those who returned to devas-

tated areas to rebuild their homes would therefore be exposed to a longer duration of adversity than former residents who relocated to non-coastal communities after the storms. One might expect that the experiences and needs among former and current coastal residents would differ in the immediate post-disaster period and in the years since 2005 (see also Chap. 13, this volume). Such a pattern of outcomes would provide new evidence concerning proximal and distal ecological influences on post-Katrina recovery.

To summarize, participants responded to open-ended questions designed to examine different, but complementary aspects of post-Katrina recovery: (a) challenges, obstacles, and setbacks after the storms, (b) establishing a new daily routine, (c) the return of "normal living," and (d) what others should know about their hurricane experiences. These open-ended questions were given to provide greater breadth and depth of responses than would have been possible with a strictly quantitative assessment. Taken together, participants' responses to these questions yielded narrative data that were analyzed for recurring concepts and emergent themes. We expected that responses for both groups would be similar concerning lost property, disrupted social and professional networks, and difficulties with insurance claims (see also Chap. 13, this volume). In contrast, current residents' responses may qualitatively differ from those of former residents due to a longer duration of adversity driven by disruption and losses in proximal and distal ecologies, including limited community resources and social milieu.

Method

Participants and Procedure

A total of 125 adults were interviewed between March, 2010, and November, 2012. They were former and current residents of St. Bernard and Plaquemines parishes in south Louisiana, with catastrophic Hurricane Katrina damage. Former residents consisted of 62 persons who were displaced and relocated permanently to non-coastal communities after the storm (*M* age=58.4, SD=17.1 years; age range: 18–89 years; 21 males, 41 females). Current residents were 63 directly affected persons who were also displaced but returned to rebuild and restore their lives in their coastal parish communities (*M* age=60.7, SD=15.0 years, age range: 20–83 years; 26 males, 37 females). A more thorough description of the sample and procedure is given elsewhere (Cherry et al., 2015).

Participants were tested individually in their homes or in a community location across two (or more) sessions separated by at least a week. The procedures used in this study were reviewed and approved by the Institutional Review Board of Louisiana State University in Baton Rouge, LA. To preserve anonymity, all participants were assigned a three-digit number, with former residents in the 100s (101–162) and current residents in the 200s (201–263), as referenced throughout this chapter.

In the first session, informed consent was obtained and quantitative measures were administered (see Cherry et al., 2015). Participants were given a prepared page with seven open-ended questions in all, which were reviewed briefly and left with them to reference later, if desired. In the second session, these questions were presented to participants in turn on individually prepared cards. Their oral responses were digitally recorded and transcribed verbatim. Transcriptions were audited for accuracy and print copies were produced for the purpose of qualitative coding by an independent group of research assistants. In this chapter, we focus on participants' responses to the following four questions:

- "People who lived through Hurricanes Katrina and Rita experienced a variety of challenges, obstacles, and setbacks. Please tell us how you coped with the challenges you faced after the storms."
- 2. "What kinds of things did you do to establish a new daily routine?"
- 3. "When did 'normal living' come back for you?"
- 4. "What would you like others to know about your experiences with Hurricanes Katrina and Rita?"

Analysis and Coding

Participants' narrative data were open coded and content analyzed in a manner consistent with grounded theory methodology (Strauss & Corbin, 1998). In brief, two research teams, consisting of one graduate student and three undergraduate students per team (eight coders total), performed independent open coding (identifying recurring themes and concepts in the text) on an interview-by-interview basis. One team coded former residents' narratives (100s series), while the other team coded current residents' narratives (200s series).

To promote rigor, every interview was independently coded in its entirety by two coders, referred to as "coding partners" or "coding pairs." Each coding pair met weekly to review and discuss their independently assigned codes. Coding partners would compare and contrast their independent open coding from the previous week on a line-by-line, page-by-page basis with each other, alternatively "leading out" by discussing her/his personal open coding of a given page. Following presentation of one's independent coding of a given page, the other coding partner would discuss similarities and differences from their coding. Each team member provided a numeric content analysis (NCA) of his/her open coding for each interview, similar to Miles and Huberman's (1994) "data accounting sheet" (p. 80). Similarities and discrepancies between individual coders were noted.

Following the weekly "coding pair" meeting, full "team" (two coding pairs) meetings were held to compare and contrast emerging themes across interviews. The two teams met separately on a weekly basis for several months until the open coding and content analysis was completed for all interviews. At this point, we collected all NCAs for each interview, offering multiple "at-a-glance" perspectives of the concepts and themes expressed in each of the interviews (Marks, Cherry, &

Silva, 2009). Each team member identified her/his top central themes based on two factors: *prevalence* (within and across interviews) and *salience*. To strengthen interrater reliability and minimize idiosyncratic bias, all central themes were reviewed and discussed within each team until a consensus was reached. By doing so, the team-based analysis revealed both relevant data segments that may have been overlooked and peripheral excerpts that were deemed "a stretch."

A final combined team meeting (with all eight coders) was held to identify similarities and differences among the central themes that had emerged from former and current residents' narratives. To ensure that the final central themes were verifiable and clearly supported by the data, team members then revisited all of the interviews and copied and pasted all data that had been directly identified with a given theme into a specific file. Each team member was assigned one prospective "core" theme which they were asked to confirm. Ultimately, in order to be deemed "core" or central, a given theme required several pages of supporting data—consistent with Patton's (2002) suggestion of creating a data "audit trail" (p. 93). Although many themes were identified during the team-based, open-coding analyses, the "core" themes presented here were identified by *consensus* (see also Chaps. 4, 13, 14, 18, 20, and 21, this volume). In other words, the themes featured in our related work were not merely emergent or noticeable. Indeed, to be identified as a "core" theme, every member of the coding team must have identified the theme many times across interviews and must have produced the NCA trail to document the theme as core and central. The themes presented shortly met these rigorous criteria.

Findings

Five major themes emerged from our team-based analysis. Two themes are presented here, which include: (1) *There's No Going Back: The "Old Normal" is Gone Forever* and (2) *You Don't Understand Unless You Were There.* The remaining themes are discussed in Chap. 13 (this volume). Illustrative and supportive excerpts from the participants' interviews are provided in connection with each of these major themes.

Theme 1: There's No Going Back: The "Old Normal" Is Gone Forever

Coastal residents faced countless challenges in an uncertain and chaotic post-disaster environment. One pressing dilemma is where to live when one's home and way of life has been washed away in the floodwaters of Katrina. Over a million displaced US Gulf Coast residents faced an exceedingly difficult decision of whether to relocate permanently and start over somewhere else, or return home and rebuild despite the catastrophic devastation, hardships, and crippled infrastructure. For many people, interpersonal, economic, and historical factors likely influenced the decision to relocate or go back to their coastal homes (see Henry, 2013, for a re-

lated discussion). At least 5 years later, former and current residents alike repeatedly made the point that their life today does not resemble what it was like prior to August of 2005. The next quotes, from a former (151) and two current residents (253, 227), illustrate differences in the length of displacement for those who relocated permanently versus those who returned to rebuild, although the sense of loss and painful steps of moving on in a world that has changed appear remarkably similar:

151 (65-year old male): Life was never, ever going to be the same. Oftentimes people will say to us, "But look at the beautiful home you have. You all have everything you could possibly want." And that's true. But what we don't have is life as we knew it before Katrina. So although you can go out and buy furniture, the loss—it never, ever goes away. When I say loss, what I mean is your life is never the same.

253 (21-year old male): Normal living...I could tell you probably when it came back the most, but I'm not sure that I can really say that we ever got back to full, normal living because so much of what we had known before the storm had changed. We were able to get back into our old house, you know, two years after the storm had hit. It was, but even then it was renovated, so it was new. And, I was able to go back to the same school that I had gone to before the storm, but the people who were there were different. You know, some people had left. Some new people had come in. So it was always this process of getting re-familiarized with everything, because nothing was normal. So I mean, I guess the, the most normal was when we were finally able to get back into our house and go back to my old school. But even then I, I think there was never a point when things were fully normal because things had changed too much for that.

There is a sense of comfort in the familiar, yet transformed and now different home and school environments 2 years after the storm for this adolescent (253) who was a high school student at the time of the 2005 hurricanes. One may sense a similar sentiment in the next quote of a middle-aged man (227) when he returned to his former home and reopened his business 3 years after the storm:

227 (54-year old male): I guess normal could be different, could be different for everybody. As far as completely normal, I don't think my life ever did get completely back the way it was, doesn't mean that I don't have a normal routine and I don't have a life that's—it's different, but yet it's consistent. And what was normal then and what was normal now, I feel is different. But as far as being normal to some consistency, I would say it took about three years to get the businesses reopened and be back in a home and at least feel like things would get back to some type of normalcy where I could live within my own home and have my businesses running again and that kind of felt probably more normal than anything else at that point.

As this man notes, "normal could be different for everybody." Most would agree that what constitutes "normal" is subjective and may also evolve over time, so it may not be possible to quantify this term for strictly research purposes. Nonetheless, our participants shed some light on what "normal living" means to them, what it was considered before the storms, and why it never fully returned after the 2005 hurricanes. Based on the participants' direct storm experiences, "normal living" would appear to mean living one's life as he or she so chooses, being close to and seeing immediate and extended family members regularly, having access to necessary establishments (schools, shopping centers, hospitals, etc.), participating in local activities, and feeling a sense of home and belonging. After Katrina and Rita swept through the US Gulf Coast region, this idea of what was "normal" has reportedly disappeared.

Both former and current residents of St. Bernard and Plaquemines parishes spoke of *the loss of a way of life*. Their comments provide a unique insiders' perspective on why their lives will never again be "normal" in the pre-Katrina sense:

160 (65-year old female): Well, the loss wasn't a material loss so much as losing our sense of home, family, community, and plans for the future. And we feel that will never be the same. All of our families lived in close together, and we felt even if we went back to St. Bernard it could never...everybody wasn't going back for one reason or another, so that way of life, we'll never have again.

215 (77-year old female): I lost my neighbors. I lost my neighborhood. I lost my church. I lost my parish priest. I lost everything. I lost my way of life. My life today is not the same as it was before Katrina. It will never be the same and I know one of your questions I have to look at, it says, "When did your life get back to normal?" My life has never been normal. It's not going to be because I can't get my normal life back. It's not there anymore. I have made a new life, a new normalcy.

Despite the effort and time spent restoring their homes, "normal living," which today is referenced as the "pre-Katrina normal," was taken abruptly away by the 2005 storms. The "old normal" way of life may not ever fully return. Both former and current residents recognize this ecological transition and acknowledge that their lives will never be the same because of the many changes after the hurricanes. They are coping with the loss of the pre-Katrina "old normal" and adapting to the "new normal" that came about many years later, as illustrated in the following quotes:

222 (66-year old male): I don't think it will ever be normal. I think that's just something you have to live with and deal with, you know. And try to understand what happened. And what could be done about it and just hope it don't happen again. If it did happen again I would probably have a negative attitude about coming back, and trying to have to re-do it again. Doing it once was hard. I don't regret it, but I wouldn't want to do it again.

For older participants, one can also sense a strong and possibly regretful feeling that they will never get to experience the old normal in their lifetimes:

260 (64-year old female): It will never be normal again. What was normal before is not normal now. And normal for me was, you know, now I had all these people living with me, where before it was just my husband and I. Now we have people living with us because they have no place else to go. They need to fix up their homes, family and friends are gone. Community destroyed. So it's a new normal. Not one that I like because it's really hard to, it's hard every day to know what was. And you've got to kind of hope it will be. But will you be around to see it? Family had moved away. Friends have moved away, neighbors, I was in my home for forty years. Neighbors moved away. Now we don't know who our neighbors are. The closeness, that was a real close knot, was, a real close-knit community. And that part is gone.

On the other hand, three current residents reported that finding a new normal in a sea of chaos was easier once they returned to St. Bernard because they were able to come back to their home town and rebuild their lives even though it was emotionally and financially challenging. These current residents' remarks reflect a more positive outlook on transitioning from the old normal to the new normal:

256 (54-year old female): As far as our normal living, that new normal for us, I think came from me mentally, emotionally when we got back here. It didn't feel right any place else that we were and when we came back here, it finally...it did. And we quickly established

routines, things that we still follow now that now we call it, everyone does your new normal, you know? You know, here's the new normal. It's not the old normal, but it is the new normal and that's what we follow now. It's as normal as it's going to be and I think we've reached a level of acceptance.

242 (46-year old male): You know the old, the saying here, you know, in St. Bernard, I got it on the back. [Referring to the idea of "Which normal are you talking about, the old normal or the new normal?"] And the old normal is not all bad or all good. And neither is the new normal all bad or all good, you know.... One day you're a part of this community, you know, thriving close-knit neighborhood and then, you know, it's all gone in a day, you know. So there's no getting back to that normal ever...and we're still developing a new normal. And like I said, you know, it was bad on the old normal and good on the normal. This is similar as far as good and bad. But still developing the new normal. You know, those relationships, you know, there's a void there so you're developing new...trying to develop new relationships with people in the same type of fashion. But they're different people so, you know, you're trying to make those connections. That's just a development in process, and there are some successes there and then which are good. New house, new neighborhood...those parts of it are good, you know.

Despite losing the old normal that characterized pre-Katrina coastal life, being there for old and new neighbors alike appeared to contribute to the well-being of current residents. Emergence of a "new normal" for former and current residents included negative experiences that should not be overlooked, such as the difficulty of being a stranger in a new town and a pervasive feeling that other people don't understand the Katrina experience, as discussed more fully in the next section.

Theme 2: "You Don't Understand Unless You Were There"

From an ecological perspective, the experience of disaster translates to a simultaneous collapse of proximal and distal ecologies as friends and family evacuate to distant cities and the familiar routines of school, work, and everyday life are destroyed. The upheaval and multiple layers of chaos after a disaster would be difficult, if not impossible to fathom, unless one has lived through such an experience (see Chap. 13, this volume). The two subthemes appearing later on offer some insight. The first subtheme, "Witness to Tragedy" conveys the horror of what happened in St. Bernard parish from the eyes of three public servants who sheltered in place and carried out their professional obligations through the storm, flooding, and desperate days that followed. The second subtheme "on rebuilding ecologies" offers a glimpse into the long and arduous process of recovery. Participants' stories of hardship, perceived neglect by governmental entities, and assistance through the helping hands of volunteers are highlighted.

"No one gets it" and variations on this sentiment appeared frequently throughout the interviews. Participants often said that people who did not experience Hurricanes Katrina and Rita firsthand in 2005 would not understand the hardships that they and others displaced by the storm faced and continued to struggle with every day. One current resident summed this sentiment up succinctly:

214 (56-year old female): It's just like people just don't...they don't understand. They will never understand. You don't understand unless you're in that situation.

Both former and current coastal residents spoke of frustration related to strangers who were unsympathetic or simply unaware of the plight of the *newly homeless*, a stark and burdensome reality for those directly impacted by the storm. The next quotes provide insight into former residents' negative experiences while looking for a new place to call their home:

110 (58-year old female): Since coming to Baton Rouge, I cannot begin to tell you how many times I have been referred to as "a Katrina person." I am so much more than that. I am a person who loves her family dearly and that we are struggling to put our lives back together again, one day at a time.... A lot of my neighbors are victims of Katrina. Someone once referred to my neighborhood as "Katrina Village." I wish the community would be more enlightened to the struggles of displaced victims and how they really feel, and the struggles and obstacles that they have had to overcome.... Some of the comments made right after Katrina and Rita made me sick. Like this one: 'If I have to listen to one more Katrina story, I'm going to scream.' That person is truly clueless or just plain insensitive to the plight of people who are just trying to put their lives back together one day at a time. I can't tell you how many times when I would start to say something about the struggles we...struggles we were going through, only to have someone cut me off in the middle of a sentence...these were health...health care professionals just like myself. How sad.

Participants spoke of feeling unwelcomed by strangers in non-coastal communities, an unsettling and rather disturbing violation of "the golden rule" (i.e., do unto others as you would have them do unto you):

147 (43-year old male): You know, one of the things we talked about earlier that bothered us...what bothered us was people that, you know, you wasn't as welcome as you thought you would welcome other people, you know, you want to be treated the way you treat people...[You should treat them]...the way you want to be treated.

He went on to describe changes he observed among his friends and family after the storm:

147 (43-year old male): I guess one of the things that hurt sometimes more than others is that people that you knew and love and grew up around has changed since then. You know, plenty of it's your own family. They moral, some of their morals and family went to the way side. And that's not the people that would agree to interview with you. I tell you that because they know it.

Another painful reality was the impatience among strangers who were not directly affected, chiding survivors to "get over it," as revealed in this former residents' response:

141 (55-year old female): That's really hard. And I guess also you never know what it feels like unless you've been there yourself. You know, you've been through something like this yourself and when people say, "Oh, it's been five years, four years, six years, whatever... Just move on. Get over it." That that really bothers me that people say that.

Current residents also conveyed a feeling of being out of place after the storm, with some having been displaced for up to 2 years before resettling in their original coastal community. One participant, a high school student at the time, described her ordeal. She said her host high school offered "refugee classes" for displaced students. Local students at the host high school noticed regional differences in speech patterns and she was teased about her accent. She said:

261 (20-year old female): We had refugee classes in school...and a lot of kids, because we had a lot of kids, would say that to us, because they heard that from their parents. [I had a friend there] and he always used to go, "Say water, say cucumber, I like when you say things with "er's" at the end. Keep saying them, keep saying them!" So I'd always, you know, sit there and talk to him, and he'd make me say water. I remember the principal come up to me, going, "Don't make her say water, that's a touchy subject for those people." We're those people! I'm like, now I feel like a minority, I feel like I understand what they mean when people get offended with the words, "those people." Like, what is that supposed to mean?

Interestingly, her reflection "now I feel like a minority" is consistent with findings from a quantitative study carried out during the immediate aftermath of Katrina, where being from New Orleans was associated with feelings of discrimination, regardless of one's race (Weems et al., 2007). And she closed with the following summation, sadly insightful of humanity's shortcomings:

261: People don't understand things until they go through it. A lot of people aren't compassionate, and you, you know it's sad that you got to say it like that, but a lot of people don't understand something until it happens to them, and they don't think before they speak, you know?

A gentleman who was in St. Bernard during the agonizing days after the storm reflected on the catastrophic devastation and desperate circumstances in Katrina's immediate aftermath:

230 (49-year old male): People, if they have never lived down here, have no idea. And even now if they come down now they could never imagine what it looked like before. This is clean. The pictures are two dimensional, or even the videos you're looking at, unless you've got high definition TV, it's a two dimensional thing. But what you're missing is the full picture, you're missing the silence. Still it's never come back the way it was before the hurricane. I never want anything like that to ever happen to anybody, but, you know, I think it's something people should see. To get the full measure of something you have to have the full body experience. Somebody come up with a virtual reality where you step in that situation, and you'd never be one of those people in the media or one of our governmental officials saying, "Maybe we shouldn't rebuild." Let them experience that in their own home town setting. See what they feel, you know?

Both former and current residents conveyed the idea that people just don't understand how catastrophic and comprehensive the destruction actually was, *unless they were there*. In the words of a former St. Bernard resident:

117 (61-year old female): They did not know unless they were one of the aid groups that went down there. They did not know that every house was devastated, that the whole community was devastated. That every job, every business, everything was devastated. And I don't think, you know, even though everybody saw the pictures, I think they thought it was like, you know, when you see the flood water in Iowa, where they go down, you know, but we had such a different experience because houses were just totally destroyed.

Although many participants who experienced Hurricanes Katrina and Rita felt that no "outsiders" could possibly understand what went on in south Louisiana following the storms, first responders and others who witnessed the destruction firsthand on August 29, 2005 can shed light on this experience. Their remarks provide a collective image of the devastation, as discussed next.

Subtheme 1: Witnesses to Tragedy: Voices of Professionals Who Were There Serving the Public

Katrina's catastrophic impact and the unprecedented flooding after the levee breaches created a chaotic and desperate set of circumstances. Public servants who stayed behind experienced a greater level of involvement in the chaos as they carried out their professional obligations under desperate circumstances. "It was bad," said one nurse who sheltered in place at a local hospital on August 29, 2005, working tirelessly through the storm and the sweltering heat in the long days that followed. The reality of her situation is captured in the next quote:

Nurse (214) (56-year old female): Once we got out, I mean our basic needs were tended to and all, but being in here (the local hospital) directly after the storm...Then, it wasn't only that you had to worry about yourself; you still had people to take care of. That's what I don't understand about the news media and other concerns or whatever people saying about medical folks that were in here taking care of people. You don't know the circumstances. I don't think anybody intentionally gave anybody medicine that would do them in. You know, they don't understand that when a person is incapacitated and really ill and you're not getting the proper nourishment or, you know, it's hot and all...you know they're in...usually you'd be in an air conditioned room or something. You can't metabolize things that you have to take, normally. Things that would normally be a normal course of event might kill you in a certain other circumstance. If you got to take your diabetic medicine, for instance, if you don't eat properly, If you're not getting the proper nourishment, your sugar could bottom out or it's things like that. I don't think the public on basic...you know with news media, they don't understand that.

Similarly, a first responder described his frustrations with the situation, especially the media coverage as briefly mentioned by the nurse:

Fire and Rescue (252) (56-year old male): One thing that stopped me from watching and reading the news was...early on in the disaster—I don't remember if it was the first time I was out or the second time I was out—I was watching the news...in our trailer in north of the lake in Hammond (Louisiana). And this gentleman come on TV and was complaining that it took us sixteen days to find his sister's body. And I just went off on the TV. My wife and my two sons are sitting in the trailer and they looking at me like I'm a madman because I'm yelling at the TV. Because I only have so many people to search twenty-six thousand houses, and at the first search that we did was a sound search. We went from Arabi all the way down to Yscloskey and Delacroix Island (the full length of St. Bernard parish). And on a sound search trying to find as many live people as we could...it wasn't until the second search that we went into buildings and started looking for bodies. My concern in the beginning was people that were still alive. And it took sixteen days for us to find his sister's body. And I yelled at the TV, "How many people do you think I have to be able to search all of these houses, and how long do you think it takes?' And he couldn't hear me....

Finally, a local elected official shared her experience, which included people having unrealistic expectations, despite the comparable situation everyone was in:

Local Elected Official (260) (64-year old female): It was very dark after the storm. The responsibility of being both American Red Cross, which is known for disaster services. Running that job we called, and a responsibility to my voters, and my community, was really, really hard. Because people are expecting so much out of you, not realizing that you lost everything too.

You know, people expected more from you. And at the same time I think they realized, they didn't realize, or didn't stop to think, "Hey, you know, we're all in the same boat." We literally lost everything [too]. And people sometimes were hostile with the elected officials. And so you know you just tried to...and it was because they were hurting and there wasn't a whole lot you could do to help.

And people as usual expected much of their government. And the government wasn't here. And of course we were here, but we're a local government. And so, and I think that's one of the biggest disappointments. That's, I said it all the time is, that the, our government, being federal, didn't give us the support that we all thought we would get. Because everybody kept saying, you know as soon as the infrastructure starts to get better, meaning traffic and vehicles could start coming in at, you know, the national guard would be here. But I mean it was ten days before we saw anybody. It was very, very lonely and almost abandoned feeling.

And so in my mind I kept saying, "Well, the Red Cross is coming, Red Cross is coming." But it was so overwhelming because all the Red Crosses in southeast Louisiana were wiped out. You know, New Orleans Red Cross, St. Bernard Red Cross, it wasn't just, so, there was no coming. There was no sitting and waiting for something to come. And I tell this all the time, we SOS, we save ourselves. We started doing things and said, "Look, we don't know if and when any helps coming, this is what we have to do." As much as I love this community, it was not a nice place to be. And we had only been in office eighteen months. So it wasn't like we had been there, you know, for years and years and could've done anything about the levee breaking....

These quotes offer a glimpse of what happened though the eyes of those who directly witnessed Katrina and her aftermath. Through their observations, perhaps others can sense the desperation and despair among people whose lives have been forever changed by this epic storm. In addition to first responders, among other public officials who were expected to work through the storm, an estimated 6,000 residents of St. Bernard did not evacuate before Hurricane Katrina made landfall. All who sheltered in place found themselves trapped in a surreal nightmare for several days without adequate food, water, and outside assistance (Buuck, 2007; Schaefer, 2007). Sadly, the slow response of federal authorities meant death for some who had survived Katrina's landfall and the horrific flooding. Enduring days on rooftops, flooded shelters of last resort, and other dire circumstances, thousands of stranded citizens and public servants alike were in fear for their lives, as the next quote from another current resident who witnessed the storm directly illustrates:

231 (50-year old female): The government was not prepared. People need to know that, to respond to a disaster of this magnitude at all. At all. And people weren't here. It was the truest of most chaos. It was the definition of chaos and instability and unfathomable circumstances. You never thought that...this was the United States of America at all. We kept waiting for the boat to come down the river and the Army to come in and save the day, and every day would go by, and nope. Not here yet. So by Thursday, when we left, I really didn't know if we were going to live or if we were going to die. I really didn't. That was the first day that I thought, we could die. We might die here. If we don't get out of here, we might die.

A crucial point to take away from these firsthand accounts is that more preparation at the state and national level is needed to avoid similar, tragic situations in the future (see Pffeferbaum et al., 2010, for a related discussion). Fortunately, where the government fell short, faith-based communities and volunteers from

across the nation and from distant cities all over the world provided aid for devastated residents and public servants (Cain & Barthelemy, 2008; Cherry et al., 2010), a saving grace that many survivors remembered in the years after the storms (see Chap. 14, this volume).

Subtheme 2: The Special Case of Rebuilding Ecologies: On Hardships, Perceived Neglect, and Volunteer Efforts

The coastal parishes (counties) of south Louisiana, among other Gulf Coast communities, are not new to the devastating effects of hurricanes and tropical storms. Older persons spoke of the unnamed storm of 1947 and Hurricane Flossy in September of 1956 (see Chap. 18, this volume). Later came Hurricanes Audrey in 1957, Betsy in 1965, Camille in 1969, Andrew in 1992, and Georges in 1998, among others too numerous to list here. Consistent with an ecological perspective, lifelong residents of geographic regions that are prone to hurricanes have likely developed certain adaptive capacities that build on personal and social resources that facilitate recovery when destructive hurricanes strike. To illustrate, consider these remarks by two lifelong coastal residents on recovery and rebuilding in the wake of Hurricane Katrina:

238 (67-year old male): That's what I tell everybody. Do what you have to do, you know. The thing is, you can't depend on everybody else to do it for you. You have to pick up and learn that you have to do for yourself. And you know, at the time of Hurricane Katrina and Rita, everybody was trying to get established, so you couldn't depend on everybody else. You had to do what you had to do for yourself. It's like I tell them all, we've been through it before, so it's not, so it wasn't really a new experience to us.

Arguably, his comment reflects self-sufficiency and prior experience with environmental destruction delivered by forces of nature—"you have to do it for yourself.... we've been through it before..." Perceived social support is another personal resource when faced with disaster-related adversities and the challenges of rebuilding. This lifelong coastal resident's remark is illustrative:

235 (43-year old female): It's very important to be around the people and the community right after the storm than be away and not know what's going on. I wanted to see the people and I wanted to be there and hug the people and say, 'I know what you're going through.' And I didn't want to go back to that normal life. I wanted to be where...I wanted to be in the destruction area. I didn't want to leave it but I had nowhere to stay.

Coming back to live in a storm-devastated community in the months after Katrina's catastrophic impact brought layers of difficulty, from the emotional shock of seeing one's home destroyed to finding out whether prior jobs and the means of making a living would be available and viable. Current residents spoke of these and other hardships in these next quotes:

204 (62-year old female): Kind of being in a state of limbo at first, until you could feel, "Okay this is where I am going to be for a short time," and then work from there...it was well over a month before they allowed us to come back into St. Bernard Parish, so you even knew what was going on, if your home was still there and then just seeing the devastation when you came in was just overwhelming.

208 (66-year old female): When we came back the first day, I thought my house would be fine, and when I walked in and saw what it looked like, it was hard because, I mean, that was the house I raised my kids in and I had lived in for twenty-something years. And when I saw what it looked like with the front door chopped, and everything all over everywhere and everything ruined, water marks up to the ceiling and holes in the ceiling where the sheet rock fell through, It was horrible. It was just totally, totally horrible.

212 (69-year old female): When I saw my house for the first time I wanted to just leave it. I didn't want to come back. But my husband, we didn't know what was going to happen with his work so we just waited it out, and I said, "Well if we don't know what to do now, something's going to tell us what to do." And something did because they did open his plant again, and we found that out in April of 2006.

Moving forward in the aftermath of 2005 hurricanes proved to be a monumental undertaking for many survivors who tackled obstacles and challenges head on with scant guidance from parish, state, or federal government entities. Consequently, it is not surprising that some current residents who returned after the hurricanes felt a sense of betrayal, mental anguish, and fear of future disasters leading to similar experiences, as this quote illustrates:

260 (64-year old female): I have lost all my trust in the government. That is the one thing that has come out if this for me. I no longer trust my government. And I don't want to be like that, but I've seen it firsthand. Anything happens in this country, we are S.O.L. [sic].

Many participants spoke of negative experiences with the government which adversely impacted their recovery. The next quotes provide additional insight into current residents' angst stemming from their encounters with Federal Emergency Management Agency (FEMA) and programs such as Road Home during the rebuilding and recovery phase of the disaster:

- **252** (56-year old male): The obstacles and setbacks were basically the Federal Government—trying to get through their forms and the hoops that they made us jump through to get what little money that they did give us.
- **247** (70-year old male): I think the more you depend on the government, the more you invite delays and technicalities and all this other stuff which just adds to your woes, you know. Had we depended on the Road Home, we'd have been two years or three years getting back in our house instead of back in in a year.
- 211 (55-year old female): I can't believe the government [can] let so many...they have so much at their disposal that it [could have] been handled in a different kind of way. You know, I mean maybe there's too much red tape. Maybe there are too many chains of command. Whose toes are going to get stepped on? You know, politics has to be set aside. You know, when experiences like this happens in this country, it just seems to me that there was no reason for the...it just didn't seem like things happened fast enough. And like I said, this thing, Katrina, was something that was never expected. It never happened before, and I hope they take everything that happened, and learn from it, and make sure that it doesn't happen to somebody else again when they need help. There's no reason that people couldn't get help immediately.

On the contrary, some current residents had a different opinion on governmental assistance and state recovery programs, such as the Louisiana Recovery Authority (LRA). One current resident reported:

251 (70-year old female): A lot of positive came out of Katrina, a lot of positive. Let me tell you, there was no way that I could come back home and have my house paid for. I had

a 30-year mortgage, and my house was only 14-years old. So I came back, my house is paid for. I came back, I mean I know we lost everything, but FEMA and them stepped up. They helped us a heck of a lot....And people complain about it, but they did. But there is no reason for that, no reason for them to complain because FEMA stepped up, LRA stepped up and I mean we got all kind of funds. Just recently I got a hundred and fifty dollar deductible and when I didn't get all of my money, they sent me a check to make up the difference for that. And now they working on this seventy five hundred dollars so that we can get shutters for our house free for Katrina. So it's a lot of positive. I don't understand why people [are] complaining, because we wouldn't be where we [are] at if we wouldn't get all these helps. Just think if we came back and had to do this on our own, you know?

Despite the hardships and challenges after the massive 2005 storms, some current residents spoke of positive experiences. The move back to St. Bernard and Plaquemines parishes after the storms gave current residents an opportunity to call a familiar place home and see some old faces that helped restore something that had been completely destroyed. Volunteer efforts of neighbors assisting each other with clean up, coupled with volunteers from all over the country who came to lend a helping hand, also made a difference for many current residents. We conclude with several heartfelt and positive responses:

210 (57-year old male): The biggest thing would be pretty much everyone that was down here that came down, whether they were coming down to see their own homes or whatever, were always there to try and help their neighbors or whoever else, too. And I think that happened a lot, and you had people coming down at different stages of the recovery. What happened was the people kind of pitched in and would help other people I think a little bit more in their situation even though they had their own problems....

254 (59-year old male): And, those people helped us. Those people helped us. You can count, you know, I can sit here and count everybody that laid a hand on us for the first year after Katrina, you know, helped us in one way or another. And, of course, we try and give back the same as what we got.

254 (59-year old male): And there is any number of positive actions that I saw people do, you know that you don't normally see every day. But, I saw any number of positive activities, things that would make you proud of the human race, go on.

To summarize, the narrative text highlighted here has revealed an undeniable and pervasive theme—namely, the feeling that no one understands the Katrina experience, unless they experienced it for themselves. The voice of one current resident perfectly captures this collective lamentation:

215 (77-year old female): I would like the whole country to really know or comprehend what happened down here. [I want them to know] that we're not a bunch of people hanging out on a roof waiting for the government to come rescue us. Like someone said recently. And he used to be a sports broadcaster down here and he works now I think it's CNN he works with. He made a comment about the people in Nashville being flooded. That they didn't go up on a roof and wait for the government to come. Nashville was a whole different story. Yes, they had water, okay, but they knew it was coming. We didn't know this water was coming here. And there were some people that couldn't leave because they couldn't afford to leave. I don't believe the country really understood what happened down here, and they still don't. [Now], with this oil spill. They all think we a bunch of third world country people waiting for the government to come help us.

¹ Participant 215 is referencing the catastrophic 2010 Deepwater Horizon oil spill in the Gulf Coast (see Chap. 4, this volume).

The voices of the first responders, as documented in the first subtheme, among others who sheltered in place on August 29, 2005, provide direct evidence of the complete destruction of a community by the forces of wind and water and the noble efforts of those who struggled for survival. In the years that followed, further insight into the lengthy and at times, painful process of restoring damaged ecologies was revealed in the second subtheme, from the proximal factors of home and family to the increasingly distal factors of neighborhoods, businesses, local government, and cultural heritage. Others may not know how it feels to experience catastrophic disruptions in familial and social support systems (with evacuations, family, and friends are scattered widely) and the devastating loss of homes and communities (schools, shopping centers, places of worship). However, diverse viewpoints from former and current residents, service personnel, and local government officials provide a step in the direction of helping others understand.

Conclusions and Implications

The findings from our qualitative analysis suggest that differences between former residents who were permanently displaced and current residents who returned to rebuild may be minimal, at least in the two respects we focus on in this chapter. Both groups experienced life changing effects of Hurricanes Katrina and Rita and both mourn the passing of the *old normal*. A pervasive sense of loss among former and current residents was often coupled with the feeling that no one understands. These reports were frequent and salient across the 125 interviews considered here including participants who relocated and those who returned and rebuilt. One noteworthy difference was the longer duration of adversity (defined as a period of time without a stable residence and convenient access to goods and services) for current residents who returned to rebuild, compared to former residents who relocated elsewhere. Whether one's challenge was to find a new town in which to live or to rebuild a hurricane-damaged hometown, the fundamental importance of recovering the sense of belonging in a community and having a perceived social support network should be kept in mind. One current coastal resident seemed to capture the feeling of many of our participants when she exclaimed:

235 (43-year old female): I want everyone to know that your home community and way of life could be washed away, but it was harder to lose the community than it was my home. You can rebuild the house, but you cannot rebuild the community. It's very hard. You can lose a home, but if you had nowhere to go when you get home then it's not a home. If you don't have a school, you don't have groceries, you don't have neighbors, you don't have family. I wouldn't want to live there so it was much harder to lose my whole way of life more than what it was to see my house gone.

The emergent themes presented here are rich with local and historical color and also have noteworthy implications that warrant further consideration. From a theoretical point of view, our results are consistent with an ecological systems perspective on post-disaster psychological reactions, highlighting the need for further study of in-

dividuals nested within multiple ecologies (see Kilmer & Gil-Rivas, 2010; Weems & Overstreet, 2009; Chap. 10, this volume). From an applied perspective, feelings of loss and frustration that persist over time underscore the need for conducting assessments in the years after a catastrophic disaster. We found that those who experienced the devastation directly, including people who now reside outside of the severely damaged areas, are still processing the lifestyle changes imposed by the 2005 storms. The persistence of storm-related feelings among former and current coastal residents alike highlights a need for support services in disaster-affected areas, and indirectly affected communities that have become a new home for those permanently displaced by the storm.

In conclusion, these data provide a unique contribution to the literature on long-term hurricane recovery guided by an ecological systems theory perspective. Addressing the needs of individuals and families who have been directly impacted by disasters in the years after these events remains a pressing challenge for social scientists and those in the helping professions. Disaster survivors' lived experiences also raise awareness of the need to prepare effectively for future disasters on local, state, and national levels.

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References

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32, 513–531.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge: Harvard University Press.

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner & W. R. Dumon (Eds.), *Handbook of child psychology Vol. 1. Theoretical models of human development* (6th ed., pp. 793–828). Hoboken: Wiley.

Brown, J. S., Cherry, K. E., Marks, L. D., Jackson, E. M., Volaufova, J., Lefante, C., & Jazwinski, S. M. (2010). After Hurricanes Katrina and Rita: Gender differences in health and religiosity in middle-aged and older adults. *Health Care for Women International*, 31(11), 997–1012. doi:http://dx.doi.org/10.1080/07399332.2010.514085.

Buuck, M. M. (2007). Firestorm: Hurricane Katrina and the St. Bernard Fire Department. Xlibris Corporation.

- Cain, D. S., & Barthelemy, J. (2008). Tangible and spiritual relief after the storm: The religious community responds to Katrina. *Journal of Social Service Research*, 34, 9–42.
- Cherry, K. E. (Ed.). (2009). Lifespan perspectives on natural disasters: Coping with Katrina, Rita and other storms. New York: Springer.
- Cherry, K. E., Allen, P. D., & Galea, S. (2010). Older adults and natural disasters: Lessons learned from Hurricanes Katrina and Rita. In P. Dass-Brailsford (Ed.), *Crisis and disaster counseling:* Lessons learned from Hurricane Katrina and other disasters (pp. 115–130). Thousand Oaks: Sage.
- Cherry, K. E., Silva Brown, J., Marks, L. D., Galea, S., Volaufova, J., Lefante, C., et al. (2011). Longitudinal assessment of cognitive and psychosocial functioning after Hurricanes Katrina and Rita: Exploring disaster impact on middle-aged, older, and oldest-old adults. *Journal of Applied Biobehavioral Research*, 16, 187–211.
- Cherry, K. E., Sampson, L., Nezat, P. F., Cacamo, A., Marks, L. D., & Galea, S. (2015). Long-term psychological outcomes in older adults after disaster: relationships to religiosity and social support. Aging & Mental Health, 19(5), 430–443.
- Henry, J. (2013). Return or relocate? An inductive analysis of decision-making in a disaster. Disaster, 37, 293–316.
- Kamo, Y., Henderson, T. L., & Roberto, K. A. (2011). Displaced older adults' reactions to and coping with the aftermath of Hurricane Katrina. *Journal of Family Issues*, 30, 1346–1370.
- Kilmer, R. P., & Gil-Rivas, V. (2010). Introduction: Attending to ecology. In R. P. Kilmer, V. Gil-Rivas, R. G. Tedeschi & L. G. Calhoun (Eds.), Meeting the needs of children, families, and communities post-disaster: Lessons learned from Hurricane Katrina and its aftermath (pp. 3–24). Washington, D.C.: American Psychological Association.
- Marks, L. D., Cherry, K. E., & Silva, J. L. (2009). Faith, crisis, coping and meaning making after Katrina. In K. E. Cherry (Ed.), *Lifespan perspectives on natural disasters: Coping with Katrina, Rita and other storms* (pp. 195–215). New York: Springer.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks: Sage.
- Patton, M. Q. (2002). Qualitative research & evaluation methods (3rd ed.). Thousand Oaks: Sage. Pfefferbaum, B., Pfefferbaum, R. L., & Norris, F. (2010). Community resilience and wellness for children exposed to Hurricane Katrina. In R. P. Kilmer, V. Gil-Rivas, R. G. Tedeschi & L. G. Calhoun (Eds.), Meeting the needs of children, families, and communities post-disaster: Lessons learned from Hurricane Katrina and its aftermath (pp. 265–288). Washington, D.C.: American Psychological Association.
- Schaefer, M. (2007). Lost in Katrina. Gretna: Pelican.
- Silva Brown, J., Cherry, K. E., Marks, L. D., Jackson, E. M., Volaufova, J., Lefante, C., & Jazwinski, S. M. (2010). After Hurricanes Katrina and Rita: Gender differences in health and religiosity in middle-aged and older adults. *Health Care for Women International*, 31(11), 997–1012. doi:http://dx.doi.org/10.1080/07399332.2010.514085.
- S. M. (2010). Lost in Katrina. Gretna: Pelican.
- Strauss, A., & Corbin, J. (1998). Basics of qualitative research: Techniques and procedures for developing grounded theory. Thousand Oaks: Sage.
- Weems, C. F, & Overstreet, S. (2009). An ecological-needs-based perspective of adolescent and youth emotional development in the context of disaster: Lessons from Hurricane Katrina. In K. E. Cherry (Ed.), *Lifespan perspectives on natural disasters: Coping with Katrina, Rita and other storms* (pp. 27–44). New York: Springer.
- Weems, C. F., Watts, S. E., Marsee, M. A., Taylor, L. K., Costa, N. M., Cannon, M. F., Carrión, V. G., & Piña, A. A. (2007). The psychosocial impact of Hurricane Katrina: Contextual differences in psychological symptoms, social support, and discrimination. *Behaviour Research and Therapy*, 45, 2295–2306.