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# Post-diaster family resilience: the use of humor as a coping strategy

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POST-DISASTER FAMILY RESILIENCE: THE USE OF HUMOR AS A COPING  
STRATEGY

A Thesis

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agriculture and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Master of Science

In

The School of Human Ecology

by  
Bridgette Boe O'Connor  
B.S., Louisiana State University, 2008  
May, 2010

## ACKNOWLEDGEMENTS

My thesis became a serendipitous experience the morning of my thesis defense. I defended my thesis on April 1, 2010, which is the widely celebrated April Fools Day. This day is a celebration of practical jokes and humor allowing for people to joke with each other. Many news stories that morning discussed the importance of using humor and laughter to lower stress levels and stay happy. These news stories also pointed out that when looking for a relationship, having a good sense of humor is often at the top of people's lists. It seemed like such a fitting day to defend my thesis discussing humor during a disaster.

My thesis committee was more than I could have dreamed of. I feel privileged to have had the opportunity to work with Dr. Betsy Garrison, my major professor, and so much more, as well as Dr. Diane Sasser and Dr. Loren Marks. I feel as though these faculty members have pushed me to become a better researcher teaching me to bring my findings into my personal life.

I would like to thank my classmates for sharing in this process with me. It was encouraging to share our thesis stories with each other and keep each other laughing during the difficult times. I would like to thank my friends Janelle Triche, Kelli Millet, Frank Roth, Monique Michel, Adele Growl, Brandi LeBoeuf and Meredith Triche, who listened to my research ideas and distracted me when I needed it. I would like to thank my parents, Mark and Rhonda Boe, for encouraging me to further my education. Lastly, I would like to thank my wonderful husband, Bryan O'Connor, who kept me motivated and continues to support me in all of my dreams.

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## ABSTRACT

The purpose of this study was to investigate the use of humor as a coping strategy among Hurricane Katrina survivors. The data for this study were collected in the first wave of a larger project on families and disasters. Using Geographic Information Systems (GIS) by combining Census data with storm damage estimates and purposive sampling, 50 participants affected by Hurricane Katrina from a single suburban community in Southern Louisiana in early spring 2006 were recruited and interviewed. When the interviews were qualitatively analyzed with a focus on humor, it became clear that families used humor even at such a devastating time. Based on a prior empirical conceptualization, five types of humor were found: language, expressive, impersonation, low humor and other orientation. The most frequent type of humor used was “language” with “expressive” humor as the second-most often used type of humor. The two new types of humor that emerged were post-disaster life and financial concerns. Because most of the families used humor in dealing with the devastation of the storm, disaster management professionals, including relief workers, should at the very least expect humor and might even encourage it depending on the situation.

## CHAPTER 1

### INTRODUCTION

Family resilience is a fairly new concept in the field of social sciences related to coping with traumatic events. Resilience is defined as a successful adaptation following exposure to stressful events (Werner, 1989). Stressful events vary a great deal throughout life and life experiences. Resilience is an interesting concept to study within the family construct because it allows one to learn what characteristics are present in those families that are able to recover from adversity. Not all families are able to bounce back from a crisis or disaster and it is important to learn what makes the families that are able to recover different.

Hurricane Katrina was the most destructive and most expensive natural disaster in U.S. history (Hurricane Advisory Group, 2006). The estimated cost of the storm was 81.2 billion dollars (Knabb, Rhome, & Brown, 2006). Over 500,000 people were evacuated, 1,833 deaths were attributed to the flood and miserable living conditions that occurred after the storm, and 5 million people lived in Katrina's path along the Gulf Coast (Knabb, Rhome, & Brown, 2006).

Hurricane Katrina was a stressful life event that directly affected the lives of people living in and around the New Orleans area. Since the landfall of Katrina in August of 2005, the residents of the New Orleans area have been studied to learn how they are able to cope with the devastation of a natural disaster. Resilience is a broad concept that encompasses different forms of coping. During the coping process people often want life to return to "normal" and the way it was before the disaster occurred. However, since the disaster has occurred, the residents are forever changed, and life may never return to normal as before (Abrams, Albright, & Panofsky, 2004; Bonanno, Galea, Bucciarellie, & Vlahov, 2006). It is important for people to be able to adapt and change to the new normal they are faced with after a disaster (Bonanno et al., 2007).

## Theoretical Background

Family stress theory is typically used for families dealing with significant life changing events and not with normal life stressors. Normal life stressors occur many times a day and usually have little effect on a family (Boss, 2002). Some examples of these types of events include waking kids for school, making sure lunches are packed and even misplacing one's keys. These and other similar events occur on a regular basis throughout normal family life and may even become part of one's routine and no longer seen as stressful events. However, larger stressful events that occur during one's life may require more attention to help resolve the situation. Some of those types of stressors may include the death of a loved one, dealing with infertility or a natural disaster. According to McCubbin (1979, pp. 241), the "more severe the stress the higher the probability that family unity and stability will be disturbed by the stressor event". When dealing with severe stress, the coping process and the coping strategies are different for a family than if it were a moderate stressor. Regardless of the type of stress, family stress theory helps explain how a family reacts to the stressor and copes with it.

Family stress theory is often typified through pictorial models that help illustrate family reaction to stressful events. One such model is the ABC-X model that was developed by Reuben Hill (1949, 1958). In this model, each letter is represented by a concept; A is the provoking event or stressor; B is the family's resources or strengths at the time of the event; C is the meaning attached to the event by the family (individually and collectively); and X is the level of stress or crisis. The provoking event or stressor (A) is not able to be anticipated or controlled by the family. The family's resources or strengths (B) are able to be controlled by the family to an extent. Resources that the family has vary a great deal depending on how the family lived before the stressor occurred. A resource that some families have available to them is extended family that is able to help them deal with the event. Other resources may include church members

available to offer assistance, co-workers, friends, neighbors and other community members.

Other types of resources that a family may have include financial assets, availability to take time off from work, and overall closeness of family. The meaning attached to an event (C) is also described as the perception of the event (Boss, 2002). Sometimes family members perceive the event in the same way and are able to collectively establish the proper actions to take to resolve the situation. Other times, a member of the family perceives events differently which can result in conflict when concluding how to effectively handle the situation. It is important when dealing with a stressful event to understand that family members may view things differently and to respect each person's viewpoint and listen to his or her ideas.

Humor fits in two places of the ABC-X model of family stress. The "B" part of the model describes the resources that are available for use by the family (Boss, 2002). These resources have a great deal of variety and range from money to optimism. The different resources that a family possesses can help the family to choose successful coping strategies. The "C" part of the model describes the family's perception of the stressful event that has taken place (Boss, 2002). This perception also affects the type of coping strategy that the family decides to use.

This paper will focus on humor usage as a coping strategy among Hurricane Katrina survivors. The first research purpose (study one) was to qualitatively investigate if the participants used humor. This was investigated in three ways. The first manner was by analyzing the data according to a previous conceptualization (Wanzer et al., 2005). The second manner was to discover if new humor categories emerged, ones unique to Hurricane Katrina survivors. The third manner was to investigate the most salient aspects of the humor. The second research purpose (study two) was to quantitatively investigate and test the hypothesis that there is a relationship between humor and family resiliency.

## Format of the Thesis

This thesis follows the journal style format in which one or more chapters in it are manuscripts that have been submitted for publication in a scholarly journal. Chapter four of this thesis has been submitted to the *Journal of Family Issues* special issue about experiences, stress, and resilience in the face of a natural disaster for publication.

## Delimitations

The population for the sample in the current study was purposively sampled, is limited to those living in Southern Louisiana, and may not be generalized to other samples, including the population of Southern Louisiana as it overrepresented women (US Census Bureau, 2000). The conclusions also may not reflect trends found among survivors of human-made or other types of natural disasters or people affected in other regions.

The sample for this study was a convenience sample of those residents who had returned home by the spring of 2006. These participants may have had more resources available to them resulting in their early return home compared to those residents who were unable to return home so quickly.

## Assumptions

There are two assumptions that guided the current study.

1. It was assumed that the participants' responses were truthful and represented their actual family situations.
2. It was assumed that the Family Resiliency Inventory reliably and validly measured the construct that it was intended to measure.

## Definitions

The following definitions were used throughout the research.

Coping strategy: "typical, habitual preferences for ways of approaching problems" (Menaghan,

1983, pp. 114).

Disaster: a non-normative, stressful event that disrupts social systems, interferes with daily life, puts a wide-spread strain on resources, and requires families to use their coping skills (Bolin, 1985; Edwards, 1998; Tierney, 1989).

Humor: the way of feeling distance between one's self and the problem; the ability to look at the problem with perspective (Martin & Lefcourt, 1983).

Resilience: the "process of recovery or bouncing back" (Boss, 2002, pp. 75).

Resource: something considered valuable (Norris & Murrell, 1988).

Traumatic Event: phenomena that typically occur outside a person's normal experience (Horowitz, 1976).

Family stress is an inevitable part of life, but does not always develop into a crisis. However, when it does, effective coping strategies are needed to deal with the problem and return family life to as close to normal as possible. Family stress theory explains the process of a disaster and offers the advice to use the resources one has to best cope with the problem. At first glance, humor is not often thought of as an obvious coping strategy, but can be helpful for families to cope with the problems they are dealing with.

## CHAPTER 2

### REVIEW OF LITERATURE

Families use a variety of ways to cope with the stressful situations that arise both in daily life and in unexpected situations. Humor is a coping strategy that may be used by families dealing with stressful events. Successful coping strategies present the opportunity for the family to begin the process of recovery and work toward becoming resilient.

Coping strategies are defined as “typical, habitual preferences for ways of approaching problems” (Menaghan, 1983, pp. 114). These strategies take on a variety of forms and may differ for an individual in different situations. Some coping strategies include: withdrawing from people, embracing people, denial, blaming other people for the situation, seeking emotional support, turning to religion or positive reinterpretation (Carver, Scheier, & Weintraub, 1989).

Stressful situations arise within families often; leaving the family to somehow cope with the event. The coping strategies of each individual family member may range from being exactly the same or drastically different. Family level coping must take place in order for the family to cope with the problem. Each family member needs to be aware of and respectful of the variety of coping strategies the individual family members use.

A coping study by Pearlin and Schooler (1978) discussed the specific coping efforts in the role areas of occupation, economic life, marriage, and parenting. Nineteen coping efforts were classified into three independent factors: (a) action to alter the situation, (b) reinterpretation of the problem, and (c) efforts to manage negative emotions. Humor usage fits into the third category (efforts to manage negative emotions) of this study. People use humor to cope with problems as a way to keep them from feeling those negative emotions often associated with stressful events.

Although not abundantly, humor usage as a coping strategy has been examined since Freud (1905, 1928) discussed the function of humor as a means of expressing sexual and aggressive drives as well as a defense mechanism. However, even before Freud, Spencer (1860) and Darwin (1872) described humor as releasing tension and causing relaxation. Darwin (1872) noted that with laughter the eyes would brighten and described humor as a tickling of the mind. Table 1 depicts several empirical studies about humor as a coping strategy. There are studies that link humor to other psychological traits such as optimism and mood, but are beyond the scope of the current study (Martin & Lefcourt, 1983; Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2002; & Fry, 1995). To avoid unnecessary duplication, some previous studies are more thoroughly discussed in chapter 4 (the article chapter).

A study conducted by Bizi, Keinan, & Beit-Hallahmi (1988) measured humor usage as a stress releaser in trainees in a course for combat Non-Commissioned Officer (NCOs) in the Israel Defense Forces. The results showed that “there is a positive relationship between the degree of humor as a personality characteristic and quality of functioning under stress” (Bizi, Keinan, & Beit-Hallahmi, 1988, pp. 955).

Wanzer et al. (2005) conducted open-ended interviews of 142 nurses to establish if they used humor as a coping strategy to deal with the negative aspects of their jobs. Nine humor categories were developed based on the open coding of the data, five of which were applicable to the current study. The first category was low humor, which involves communication that is silly, spontaneous or stupid (Wanzer et al., 2005). The second category was impersonation, which involves communication that attempts to impersonate another person (Wanzer et al., 2005). The next category was language, which involves communication that is witty or clever and includes teasing (Wanzer et al., 2005). The next category was other orientation, which involves

Table 1. Humor studies

Author(s) and Year	Sample	Instrument	Statistical Method	Relevant Findings
Bizi, S., Keinan, G., & Beit-Hallahmi B. (1988).	159 soldiers	Two peer-rating questionnaires A self-rating instrument	Correlations	A positive relationship between humor as a personality characteristic and functioning under stressful conditions.
Henman, L. D. (2001)	50 Vietnam POWs	Unstructured open-ended interviews	Qualitative study	Resilience (and subsequently, humor) was shared by the prisoners of war, which contributed, to their survival.
Martin, R. A. & Lefcourt, H. M. (1983).	Study 1: 40 male and 32 female students; Study 2: 29 male and 33 female undergraduate students; Study 3: 25 psychology students	Life Events of College Students (Sandler & Lakey, 1982); Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1971); Situational Humor Response Questionnaire (SHRQ; Martin & Lefcourt); Sense of Humor Questionnaire (SHQ; Svebak,	Hierarchical multiple regression	Humor reduced the impact of stress (for five out of the six measures).

Table 1. continued

		1974); & Coping Humor Scale (this seven-item scale was created particularly for this study)		
Rim, Y. (1988).	55 women and 51 men, undergraduate and graduate students	Svebak's Revised Questionnaire on Sense of Humor (1974); Lefcourt and Martin's Situational Humor Response Questionnaire (1986); Lefcourt and Martin's Coping Humor Scale (1986); & Plutchnik (1981)	Correlations	Both a positive and negative relationship between humor and coping for men and women.
Thorson, J. A., Powell, F. C., Sarmany- Schuller, I., & Hampes, W. P. (1997).	199 young adults aged 17 to 21 years	Multidimensional Sense of Humor Scale (MSHS)	Correlations	Humor is a multidimensional construct that seems to be both positively and negatively related to psychological health.

communication in which the speaker adapts to the situation based on the others that are around (Wanzer et al., 2005). The last category was expressiveness, which involves communication that is positive, lighthearted and happy (Wanzer et al., 2005). These categories were developed by using data from nurses; however, the categories were used with disaster survivors in the current study.

People can use humor at many stages in life, some of which seem very unlikely including being a prisoner of war. It seems unlikely that anyone who is being held captive would be able to make a joke or see humor in any situation; however, it does happen. Henman (2001) interviewed 50 Vietnam prisoners of war and discovered that these men were able to become and remain resilient based on the social support and encouragement they received from each other. Part of that support included humor usage to lift up spirits in such a dark time. Humor became contagious among the group and helped foster the resilient atmosphere. A similar situation occurred during Viktor Frankl's time in a Nazi concentration camp (1959). He states that "it is well known that humor, more than anything else in the human make-up, can afford an aloofness and an ability to rise above any situation, even if only for a few seconds" (Frankl, 1959, pp. 43). He continues by telling the story of training a friend in the camp to use humor by promising each other that they would come up with an amusing story to tell each other every day. He described one of these stories by saying that "during a future dinner engagement [once free from the camp] they might forget themselves when the soup was served and beg the hostess to ladle it 'from the bottom'" (Frankl, 1959, pp. 44). This use of humor during such a devastating time was able to distract people from the life they were living and to think about something funny instead.

Humor is not always thought of as a coping strategy when dealing with a disaster, but it can be a very successful strategy when used effectively (Thorson, Powell, Samrany-Schuller, &

Hampes, 1997). Humor can also be used inappropriately which is an ineffective coping strategy and can be harmful to other people dealing with the disaster. Smyth (1986) described when disaster jokes are used inappropriately. Smyth noted that these types of jokes tend to arise quickly after a disaster and are passed around at astonishing rates. An example of this type of joke dealing with the Challenger disaster is “Why didn’t they put showers on the Challenger? Because they knew that everyone would wash up on shore” (Smyth, 1986, p 245). These jokes do not seem to help anyone cope with the disaster, but when talking directly to different people who pass these jokes on he or she seemed to genuinely benefit by using humor to help cope with the tragedy (Smyth, 1986). Kuipers (2002) conducted a qualitative study looking at the use of Internet jokes created about disasters covered by the media. Findings indicated that these types of internet disaster jokes were a result of the ambivalent feelings among today’s culture (Kupers, 2002). These stories demonstrated how humor can be used inappropriately at certain times.

The previous studies cited focused on individual level humor; however, there is a lack of family level studies that focused on humor as a coping strategy. No study has combined humor as a coping strategy and families dealing with a disaster. This paper will combine those two areas to establish if humor does help a family to cope with a disaster.

## CHAPTER 3

### METHOD

The data for this study were collected in the first wave of a larger project on families and disasters. Prior to the beginning of the study, approval was granted from the Institutional Review Board at Louisiana State University. Using Geographic Information Systems (GIS) by combining Census data with storm damage estimates and purposive sampling, 50 participants affected by Hurricane Katrina from a single suburban community in Southern Louisiana in early spring 2006 were recruited and interviewed.

Prior to data collection, disaster mental health professionals were consulted and extensive interviewer training was conducted. The interview schedule was reviewed by two trauma experts as well as by two accomplished qualitative researchers. A packet for each participant was prepared that included a list of local mental health professionals and agencies as well as some informational bulletins about coping published by the Louisiana Cooperative Extension Service. The packet also included a copy of the description of the larger longitudinal study and a consent form.

The interviews ranged from 30 minutes to two hours with an average length of 60 minutes; all interviews were voice recorded. During each interview, one of the interviewers logged notes and wrote down comments about the veracity of the information obtained. The narratives were transcribed verbatim and the quantitative data were scored and entered.

Qualitative analysis of the interviews was conducted to establish if Wanzer's et al. (2005) conceptualization about humor could be extended to disaster survivors. Line by line analysis of the interviews revealed humor usage by the respondents which were able to be linked to Wanzer et al. (2005) humor categories. Quantitative analysis of the resiliency scores were used to

establish a family's resiliency score. This score was used to establish if there was a link between humor usage by the family and the level of resilience.

*Overview of scoring and analyses.* Data in the transcripts were closely scrutinized to identify themes or concepts established in the relevant literature suggested by Gilgun (1992). Open coding was also conducted to generate themes from questions in the interview protocol. Codes or concepts in each transcript were noted in a code book, and the number of times the themes appeared within the data were noted. Following the procedure for qualitative data analysis recommended in the grounded theory literature, a second deliberate pass through the data, or axial coding, was then conducted to organize themes or concepts into categories and sub-categories thus deepening the theoretical framework supporting the study (Neuman, 2006; Strauss & Corbin, 1990). The axial coding served to organize themes or concepts into categories and sub-categories thus deepening the theoretical framework underpinning the analysis (Neuman, 2006).

The line by line analysis recommended by Straus and Corbin (1990) allowed comparisons of statements within each transcript. Considerations included the following: (a) Patterns and common themes that emerged in responses dealing with specific items and how those patterns (or lack thereof) helped to illuminate the broader study question or questions; (b) any possible deviations from these patterns which, if found, were examined for any factors that might explain these atypical responses; (c) interesting stories that emerged from the responses and how the stories could help to illuminate the broader study question or questions; and (d) whether the patterns that emerged corroborated the findings of any corresponding qualitative analyses that have been conducted. If not, the data were re-read to establish what might explain these discrepancies. Finally, selective coding was conducted so that the themes could be read for

a third time to confirm interpretations and look selectively for quotes or cases that illustrated the identified themes (Neuman, 2006). After coding them independently, the researchers discussed the core concepts and assigned the final themes after consensus was reached.

Open coding was conducted on the data, with a focus on humor, by two graduate students and one undergraduate student. The data were carefully scanned noting any place that humor was used or discussed by the participants. The team of students met and discussed their individual findings to ensure each person coded the data the same way. A table was formatted with the direct quotations of the participant when humor was used in order for the next step, axial coding, to take place. The research team used the tables to make connections and identify the emergent themes.

Humor categories identified by Wanzer et al. (2005) were used in the coding and sorting process of the data. Five of the nine categories identified were able to be applied to the data. Language and word play is witty or clever verbal communication often including sarcasm. Expressiveness or general humor is “communication that emphasizes intensity, dynamism and emotionality and includes general references to being friendly, enthusiastic, positive, optimistic, and happy” (Wanzer et al., 2005, 116). Impersonation is mimicking or acting like a specific person in a specific situation. Low humor is defined as attempts at humorous situations that “typically involve acting stupid, silly or absurd” (Wanzer et al., 2005, 116). Other orientation is defined as communication in which the speaker is aware of and adapts to the audience according to their reactions.

*Quantitative measures.* As a part of the larger project, several quantitative assessments were included in the interviews. Of interest to the current project was the Family Resiliency Inventory. In addition two humor variables were created from the narrative data.

*Family resiliency.* Because there is no assessment found in the review of literature that measured family resiliency, the Family Resiliency Inventory was developed by modifying questions from other measures that assess similar constructs (Knowles, 2007). The assessments that were examined to construct a measure of family resiliency included the Family Environmental Scale (FES) (Moos & Moos, 2002), the Massachusetts Self-Sufficiency Scales and Ladders Management System (Bureau of Neighborhoods, 1999), the Family Hardiness Index (FHI), (McCubbin & Patterson, 1983), the McMaster Family Assessment Device (FAD) (Epstein et al., 1983), and the base-line interview that was used by Harvard Medical School's Hurricane Advisory Group (2006).

For each item on the resiliency instrument, the respondent was given a choice of responses that include "It is better," "It is worse," and "It is the same" since the storm. "It is better" was scored as a 2. "It is the same" was scored with a one. "It is worse" was scored with a zero. The resiliency instrument asked families to rate the following items about their family: financial situation, safety, decision making, physical health, mental health, ability to solve practical or daily problems, ability to perform household responsibilities, ability to plan family activities, ability to set priorities, ability to respect each other, ability to be supportive, ability to resolve conflicts, ability to communicate, relationship between spouses, relationship(s) between parent and child/children, relationship among/between children, relationship between your family and your extended family, relationship between your family and your neighbors, and overall family life since the hurricane. The first nine items measured the families instrumental resiliency, items ten through eighteen measured the families expressive resiliency and item nineteen measured overall resiliency.

A family resiliency index was computed by summing the scores for each item on the instrument. For this study, it was decided that for a family to be considered resilient they needed to get better and therefore answer “it is better” to the resiliency questions. Therefore, only the questions in which the families responded “it is better” were included. The instrumental resiliency variable was created by counting the number of times a family answered “it is better” to the first nine resiliency questions. The expressive resiliency variable was created by counting the number of times a family answered “it is better” to the second nine resiliency questions. The total resiliency variable was created by summing the number of times a family answered “it is better” to all of the resiliency questions.

*Use of humor.* Frequencies of humor were examined by counting the number of humor examples for each variable. The variables were named and entered into a statistical software program for analysis.

The total humor variable was calculated by tallying the seven different types of humor that were used by the families. The total humor was tallied by both manually counting and summing the different types of humor in the statistical software to ensure all numbers were entered properly. Each family now had a total humor score representing the number of times they used humor.

The types of humor variable used was calculated by recoding the seven different humor variables to display if a family used humor or did not use humor (not the number of times). If the family used a humor variable, then the value was coded as one; if not it was coded as zero. Each humor variable with a value of one was counted, giving a value for the humor variable type of humor used. Each family now had a type of humor score representing the number of different types of humor they used.

*Testing the hypothesis.* Chi-square analyses were conducted to test the hypothesis. Six sub-hypothesis were created to further test the relationship between humor and family resiliency.

The first sub-hypothesis tested if there was a relationship between the total humor variable and the expressive resiliency variable. The second sub-hypothesis tested if there was a relationship between the types of humor variable and the expressive resiliency variable. The third sub-hypothesis tested if there was a relationship between the total humor variable and the instrumental resiliency variable. The fourth sub-hypothesis tested if there was a relationship between the types of humor variable and the instrumental resiliency variable. The fifth sub-hypothesis tested if there was a relationship between the total humor variable and the total resiliency variable. The sixth sub-hypothesis tested if there was a relationship between the types of humor variable and the total resiliency variable. These results will be described in Chapter 5.

## CHAPTER 4

### STUDY ONE

As previously mentioned, this chapter is actually an article that has been submitted for possible publication in the *Journal of Family Issues*. As such, there is some duplication from both previous and subsequent chapters. The exact title of the article is “Post-disaster family recovery: How is humor used?”

Hurricane Katrina was the most destructive and most expensive natural disaster in U.S. history (Hurricane Advisory Group, 2006). The estimated cost of the storm was 81.2 billion dollars (Knabb, Rhome, & Brown, 2006). Over 500,000 people were evacuated, 1,833 deaths were attributed to the flood and miserable living conditions that occurred after the storm and 5 million people lived in Katrina’s path along the Gulf Coast (Knabb et al., 2006).

Disasters strike at places all over the world and often affect, even prepared people off guard. Scientists from many disciplines study these places and populations to increase knowledge about particular disasters as well as the resilience of both the physical and social environment. Family scientists try to learn about how families deal with disasters and particularly those families who are able to successfully cope with a traumatic event, such as a hurricane, and return to normal family life. Families use a variety of ways to resume their post-disaster lives. The purpose of the current study was to investigate humor usage as a coping strategy.

Somewhat surprisingly, there is a lack of family level studies that focus on humor as a coping strategy. No studies were found that investigated humor as a coping strategy for families recovering from disaster. Thus, this study makes a unique contribution to the extant literature. Three research questions were addressed. The first research question was to investigate if the

types of humor conceptualized by others could be confirmed in our data. The second research question was to identify humor categories unique to our data. The third research question was to identify the most salient aspects of humor reported by the participants of the study.

### Review of Literature

Families are important to study when dealing with disasters because they are a unit that may experience events in different ways and therefore cope differently. It is important that families work together after the disaster has occurred to ensure coping for the family and not only for a few members (Calhoun & Tedeschi, 1998; Greeff & Van der Merwe, 2004; Hawley, 2000; Linely & Joseph, 2004; Mancini & Bonanno, 2006; McGrath, 2001; Walsh, 2002; 2007).

Resilience is a fairly new concept in the field of social sciences related to coping with traumatic events. Resilience is defined as a successful adaptation following exposure to stressful events (Werner, 1989). Stressful events vary a great deal throughout life and life experiences. Resilience is a broad construct that encompasses many different forms of coping. During the coping process people often want life to return to “normal” and the way it was before the disaster occurred. Since the disaster has occurred, however, the residents are forever changed, and life may never return to the normal as before (Abrams, Albright, & Panofsky, 2004; Bonanno, Galea, Bucciarelli, & Vlahov, 2006). It is important for people to be able to adapt and change to the new normal they are faced with after a disaster (Bonanno et al., 2007).

Based on the bioecological model of Bronfenbrenner (1979, 1986; see also 2005), Walsh (2003) developed key processes of family resilience that included three general categories: belief systems, organizational patterns and communication/problem solving. The first category, belief systems, encourages the family to make meaning from the crisis that has occurred, to have a positive outlook on things, and encourages the family to foster transcendence and spirituality.

The second category, organizational patterns, encourages the family to be flexible while remaining connected to each other and to use the social and economic resources that are available to them. The third category, communication and problem solving, encourages the family to communicate with clarity, to have open emotional expressions with each other and to have collaboration when problem solving. Humor fits under communication. Open communication within a family encourages emotional expression from all members of the family. Each family member may be at a different point in the coping process but should feel comfortable to share his or her feelings about the situation in the way that is most appropriate. Humor may be the most appropriate way to cope for one or more members at a particular time and should therefore be allowed to take place.

Humor usage as an individual coping strategy has been studied since Freud (1905, 1928) discussed the function of humor as a means of expressing sexual and aggressive drives as well as a defense mechanism. Even before Freud, however, Spencer (1860) and Darwin (1872) described humor as releasing tension and causing relaxation. People can use humor at many stages in life, some of which seem highly improbable such as being a prisoner of war. It seems unlikely that anyone who is being held captive would be able to make a joke or see humor in any situation. It has happened, however; Henman (2001) interviewed 50 Vietnam prisoners of war and discovered that these men were able to become resilient because of the social support and encouragement they received from each other. Part of that support included humor usage to lift up spirits in such a dark time. Humor became contagious among the group and helped foster a resilient environment. A similar situation occurred during Viktor Frankl's time in a Nazi concentration camp (1959). He states that "it is well known that humor, more than anything else in the human make-up, can afford an aloofness and an ability to rise above any situation, even if

only for a few seconds” (Frankl, 1959, pp. 43). He continues by telling the story of training a friend in the camp to use humor by promising each other that they would come up with an amusing story to tell each other every day. This use of humor during such a devastating time was able to distract people from the life they were living and to think about something funny instead.

Bizi, Keinan, and Beit-Hallahmi (1988) assessed humor usage as a stress releaser in military trainees. The results indicated “a positive relationship between the degree of humor as a personality characteristic and quality of functioning under stress” (Bizi, et al., 1988, p. 955). Wanzer et al. (2005) conducted open-ended interviews of 142 nurses to ascertain if they used humor as a coping strategy to deal with the negative aspects of their jobs and nine humor categories emerged. Five of the nine categories relevant to the present study were: low humor, impersonation, language/word play, other orientation, and expressiveness. Low humor involves communication that is silly, spontaneous or stupid. Impersonation involves communication that attempts to impersonate another person. Language/word play involves communication that is witty or clever and includes teasing. Other orientation involves communication in which the speaker adapts to the situation based on the others that are around. Expressiveness involves communication that is positive, light hearted and happy. The remaining four categories were not germane to the present study because the interviews were not video recorded nor were non-family members involved.

#### Method

One of the areas hit hard by Katrina was the St. Tammany Parish area in Louisiana. The city of Slidell and its residents suffered major damage because of the proximity to Lake Pontchartrain. An estimated 4,000 out of 10,300 homes in Slidell sustained serious damage from

Katrina. It was estimated that 400 to 700 of the damaged houses were complete losses. More than one out of every seven businesses in the St. Tammany region were destroyed, and the estimated cost in damage to businesses was \$118,366,000. Every school in the parish was either damaged or destroyed, as were both universities in the parish (City of Slidell, 2007a; City of Slidell, 2007b; Louisiana Speaks, 2006; St. Tammany Parish Disaster Impact and Needs Assessment, 2006).

The data for this study were collected in the first wave of a larger project on families and disasters. Prior to the beginning of the study, approval was granted from the Institutional Review Board at Louisiana State University. Using Geographic Information Systems (GIS) by combining Census data with storm damage estimates and purposive sampling, 50 participants affected by Hurricane Katrina from a single suburban community in Southern Louisiana in early spring 2006 were recruited and interviewed. Most of the interviews took place in the participant's home or FEMA trailer. No monetary compensation was provided for the participants in the study and their identity is protected through pseudonyms.

Prior to data collection, disaster mental health professionals were consulted and extensive interviewer training was conducted. The interview schedule was reviewed by two trauma experts as well as by two accomplished qualitative researchers. A packet for each participant was prepared that included a list of local mental health professionals and agencies as well as some informational bulletins about coping published by the Louisiana Cooperative Extension Service. The packet also included a copy of the description of the larger longitudinal study and a consent form.

The interviews ranged from 30 minutes to two hours with an average length of 60 minutes; all interviews were voice recorded. During each interview, one of the interviewers

logged notes and wrote down comments about the veracity of the information obtained. The narratives were transcribed verbatim and the analyses conducted ala Strauss and Corbin (1990).

Two graduate students and one undergraduate student conducted open coding on the data, with a focus on humor. The data were carefully scanned noting any place that humor was used or discussed by the participants. The team of students met and discussed their individual findings together to ensure each person similarly coded the data. A matrix was developed with the direct quotations of the participant when humor was used in order for the next step, axial coding. The research team used the matrices to make connections and identify emergent themes.

### Findings

The sample from Hurricane Katrina comprised 50 respondents living in St. Tammany Parish. Forty-seven (94%) of the respondents did not return to their homes immediately following the storm. Seventeen respondents (34%) were male and 33 (66%) respondents were female. The sample consisted of 37 (74%) Caucasian respondents, 12 (24%) African American respondents, and one (2%) Latino respondent. The mean age of the respondents was 48.44 years old. Twenty-nine (58%) of the respondents were married, six (12%) of the respondents were single or never married, four (8%) of the respondents were cohabitating, six (12%) of the respondents were divorced, four (8%) of the respondents were widowed, and one (2%) of the respondents was separated. Thirty-one (62%) of the respondents reported that they were currently employed. One (2%) of the respondents reported that they earn less than \$5,000. Six (12%) of the respondents reported that they earn between \$5,000 and \$9,999. One (2%) of the respondents reported that they earn between \$10,000 and \$19,999. Thirteen (26%) of the respondents reported that they earn between \$20,000 and \$39,999. Twelve (24%) of the respondents reported that they earn between \$40,000 and \$59,999. Twelve (24%) of the

respondents reported that they earn between \$60,999 and \$79,999. Four (8%) of the respondents reported that they earn \$80,000 and above. Thirty-seven (74%) of the respondents lived in their current home before the storm and 12 (24%) had changed residences since Hurricane Katrina. Twenty-seven (54%) of the respondents owned their homes with a mortgage, 13 (26%) of the respondents owned their homes without a mortgage, 7 (14%) of the respondents rented, and two (4%) of the respondents occupied their home without payment of rent. Thus, the typical respondent in the study was a married, employed Caucasian female around 48 years old.

When the interviews were analyzed with a focus on humor, it became clear that families used humor even at such a devastating time. The first research question was to categorize humor using the conceptualization of Wanzer et al. (2005). Our findings were consistent with theirs. The second research question allowed for new categories to surface, if appropriate, to better define the type of humor being used by these disaster-affected families. This creation of new situation specific categories enhanced the humorous voice of the respondents by focusing on the way of life their families were experiencing at that time. As a result, two new humor categories emerged, financial concerns and post-disaster life. The third research question captured the most salient themes.

With respect to the first research question, language (or word play) was used by the respondents a total of 54 times throughout all of the interviews. This type of humor permitted the participants to use sarcasm in their answers to the questions that perhaps showed a little more of each family's character. Annette reacted to a comment by a community leader's prediction on the recovery of the community by saying, "I think it will take that long for everything to get back to normal, I really do. By that time I'll be so old, I won't care (laughs)." This type of humor also allowed the participants to use clever language to get their points of view across to the

interviewer. To the question posed by the interviewer, “Has there been a specific problem that stands out since the storm that you’ve had to deal with?” Lisa admitted “Anger. Anger.” When asked how she dealt with it, she retorted, “I’ll let you know when I’m finished with it.”

Expressiveness was used a total of 39 times throughout the interviews. This type of humor involved the participants showing their emotions of delight and lightheartedness. This type of humor provided a way for the participants to show positive emotions during the recovery of such a devastating disaster. This type of humor is closely related to silver linings, which allows a person to see a bright side of a tragic event. Mark commented on his housing situation by quipping, “You know...before the hurricane my wife wanted new cabinets and new this and new that. Now she gets it. So, it doesn’t cost me anything (laughs).” This was followed by feedback from the interview that responded in like manner with “Blessings in disguise. Okay. Cabinet blessings.” And they both chuckled.

Impersonation was used by the respondents a total of 16 times throughout the interviews. This type of humor typically took place if there was only one person being interviewed. The person being interviewed would impersonate his or her significant other or another family member while answering the questions which sometimes included inflection and tone to sound like someone else. These types of impersonation examples almost allowed the participants to give a voice to their other family members not able to participate in the interview. Parnell and Ivy were discussing the chats at family dinners and commented on another grandchild’s reaction to the beard Parnell had grown since the storm. “The baby doesn’t like his grandpa’s beard, you know, and he says sometimes he won’t kiss him,” Ivy tells the interviewer. “He says ‘I don’t kiss boys.’”

Low humor was used with the respondents a total of 15 times throughout the interviews. This type of humor provided the participants a way to lighten the mood since the discussions were about such a devastating topic. The low humor examples seemed to be tied to the participants simply trying to get through the interview without being so serious the entire time. Parnell and Ivy described their three-year-old grandson's reaction to the bruise on Ivy's face that occurred during the storm. "Can I touch it?" he asked about the large bruise on her face. He touched it and asked "How did you get that paint all around your eye?"

Other orientation was used a total of five times throughout the interviews. This type of humor typically takes place when there is another family member present during the time of the interview, either participating or just listening to the interview. This type of humor allowed the participant to answer the questions in such a way that accounted for another person being in the room. Sometimes, this type of humor occurred when participants had inside jokes that the interviewer was not privileged to. This allowed the participants to engage in conversation with each other, which resulted in humorous dialogue between the two.

The second research question was to find out if new humor categories could be created for these families. After analysis, it was clear that two new humor categories emerged from the participants' experiences. The first new category was post-disaster life. This type of humor involved communication about the struggles of daily life in the aftermath of Hurricane Katrina. The second new humor category was financial concerns. This type of humor involved communication dealing with financial issues that have arisen due to Hurricane Katrina.

Post-disaster life was very different than the way of life they had experienced prior to Hurricane Katrina. They needed to adjust to increased amounts of traffic with decreased amounts of hours of service at most business establishments. Every aspect of life after Katrina

was different and required an adjustment by the residents returning home. Tasks that were easy and routine such as going out to eat became a well-planned and patient excursion. Monique reflects on a trip to eat out after Katrina, "You have to have patience when you go to Chili's. 'Frank' 'How many?' '2' 'Smoking or non?' 'non' ' Ok, that'll be 5 hours and 35 minutes'".

Hurricane Katrina caused damage to all parts of infrastructure in the New Orleans area including knocking down streetlights and washing out bridges. This destruction to the roadways caused the amount of traffic to increase due to some routes being closed and others that were open significantly overcrowded. Julie reflects on the difficult traffic problems and her strategy to use shortcuts, "Yeah, especially since they learn the back streets too. (laughs)...(laughing) everybody started finding out where the shortcuts are so there is no shortcuts now." The increased amounts of traffic made navigating through the area difficult and trips to the store could no longer occur on the way home from work. Sandy recalls the difficulties of making a trip to the store in the evening, "The only thing that bothers me is Wal-Mart closes at 8:00." Post-disaster life was a difficult world to navigate through and sometimes humor was a way to express frustrations.

Financial concerns were a typical topic of conversation throughout the majority of the interviews. The respondents were discussing how Hurricane Katrina had impacted their lives and the recovery they had completed since that time. Most of the respondents had to deal with damage to their home and the financial hardship of replacing and repairing parts of their homes. Many people at this time were dealing with changes at work because some jobs had to change due to Katrina. The unexpected change in job structure combined with the need to make repairs to one's home resulted in a stressful financial life for many people. Denise reflects about the

challenges of trying to save money during the difficult time, "So that emergency money, ha-ha, that I'm trying to hang on to it".

The participants discussed the current economic situation of each participating family. Most families reported that their economic situation was harder at the time of the interview than prior to Hurricane Katrina. Some of the participants were able to use humor when discussing these financial difficulties. Jason discusses the current job situation from his point of view, "...Well I wouldn't be unemployed...because I'd have to run the Pot-O-Gold truck. Do you know what that is? It empties the porter potty. Yeah. As far as I'm concerned, work is work...you know I gotta work to support my family so... I would have a job because there's tons of jobs right now..."

The third research question was to identify the most salient aspects of these families' post-Katrina experiences and two emerged: adversity and endurance. Each participant made it clear that living through the devastation and destruction of Hurricane Katrina was not done easily. Almost everything about life as they knew it had changed. Homes were damaged or destroyed along with precious pictures and the memories they evoked. Elizabeth recalls, "every now and then you think about things that you should have grabbed at the last minute." Emma reflects on the difficulty of life after Katrina, "Well I think I have probably cried more in the past eight months than I have in probably the past thirty years."

The participants were able to better use resources they possessed that they may have already been aware of and some that were revealed in the wake of tragedy. Hurricane Katrina definitely knocked these people down, but it did not keep them from getting back up. Michelle remembered that they had to "stop feeling sorry for ourselves and um make our FEMA trailer a home." After talking about new strengths of the family that Adele had realized, the interviewer

said, “It’s pretty amazing, isn’t it?” to which she responded, “It’s very amazing.” The participants had an overall strength to rise above the tragedy and devastation of Hurricane Katrina instead of being beaten by it. Alex teased, “Oh mama, it’ll take more than a hurricane to get rid of you.”

During the analysis of the narratives, 13 participants provided no examples of humor throughout the course of the interview. These participants’ answers tended to be shorter in length with the respondents not elaborating on their answers. Throughout the course of conversation, these participants tended to have examples of nervous laughter rather than using humor.

### Conclusions

The majority of the families used humor in dealing with the devastation of Hurricane Katrina. The two most often used circumstances for humor were to describe their living arrangements and housing situations and to communicate their family relationships at the time of the storm and immediately after the storms. The most frequent type of humor used was language with “expressive” humor as the second-most often used type of humor. The use of language or play on words indicates a higher or more sophisticated level of humor than low humor as reported in Wanzer et al. (2005). Because the instances of humor captured in this first wave of data were so situation-specific there were indications that the uses of humor were spontaneous rather than planned.

The findings of our study corroborate those of previous ones. The study conducted by Bizi et al. (1988) found that humor usage was related to increased functioning under stress. Frankl’s use of humor in his book demonstrated that humor is used by people under severe

stressful conditions to mentally get through the day (1959). Henman's study found that humor was used to promote a spirit of resilience among Vietnam prisoners of war (2001).

The present findings must be considered within the context of several limitations. Study participants were not randomly selected; a convenience sample of residents from a single community was used. In addition, the majority of participants were able to return to their homes. Since the participants were home, they likely had more options and resources than those who were not able to return as well as different levels of trauma and distress. Although respondents were asked to provide a collective response that reflected the perceptions of their entire family, it must be acknowledged that the individual's experiences may have taken precedence over the family's collective experiences; we would expect some differences in responses between and among members of the same family, particularly under such trying times. We hope that other researchers extend and improve upon the work we have started here, including directly asking about the effectiveness of humor as a coping strategy as well as the use of laughter.

*Recommendations for supporting preparedness and recovery.* Relief workers and others who interact with survivors of disaster, as well as the survivors themselves, can be alerted to the advantages of humor in crisis, which may be helpful to their own resilience. It would also be useful to establish which types of humor are most beneficial. Practitioners, researchers, relief workers, and others should be mindful, however, of the types of humor they use and the instances within which they use humor. Only those who possess the cultural competence to work with the residents of the affected areas should interact with them after crisis and to infuse their conversations with humor. One point of these requirements is the necessity to avoid offending people at the very least or sending survivors into downward spirals at the worst, particularly if the interviewer or relief worker uses humor insensitively. Inappropriate use of humor due to lack

of knowledge of the situation and the culture could destroy the rapport achieved with survivors and prolong their recovery.

As we wrap up this article, we find ourselves as residents of the Gulf Coast (and survivors of Hurricane Gustav) returning previously drawn conclusions (Knowles, Sasser & Garrison, 2009; Garrison & Sasser, 2009). They were (a) “one size doesn’t fit all” which also included cultural competence, (b) “life doesn’t stop just because you’ve survived a disaster;” (c) “do no harm,” (d) “don’t underestimate the sapping ability of heat and humidity,” and (e) “ripple effects are greater than storm surge.” Thus, we strongly recommend that policy makers and practitioners (and the media) take into account the full context of the disaster, including the effects of global warming and climate change.

## CHAPTER 5

### STUDY TWO

The second research purpose was to quantitatively analyze the hypothesis that there is a relationship between humor and family resiliency. The sample for this study is the same sample described in Chapter 4. The typical participant was a Caucasian middle-aged female that was in a relationship and employed earning between \$40,000 and \$80,000.

Descriptive statistics were conducted to display the mean, median, standard deviation and range indicating that the data were clean and normally distributed (table 2).

Table 2. Descriptive statistics of humor usage

Variable	Mean	Median	Standard Deviation	Range
Total humor	3.16	2.00	3.59	0-13
Types of humor	1.88	2.00	1.67	0-6
Instrumental Resiliency	1.26	1.00	1.54	0-6
Expressive Resiliency	3.52	4.00	2.55	0-8
Total Resiliency	4.78	5.00	3.45	0-12

Chi-square analyses were conducted to test the hypothesis. The results of these tests can be found in table 3.

None of the chi-squared analyses yielded significant results. There are probably several reasons why significant results were not uncovered. The most obvious reason is that no humor assessment was included in the study. Perhaps if a humor assessment was used, such as the one

Table 3. Chi-square analyses summary table

Resiliency	Humor	X <sup>2</sup> value
Expressive resiliency score	Total amount	0.044
	Types of humor	0.044
Instrumental resiliency score	Total amount	0.000
	Types of humor	0.000
Total resiliency score	Total amount	0.135
	Types of humor	0.135

$p \leq .05$

by Martin and Lefcourt (1983), and those scores were used in the analysis comparison to resiliency scores significant findings may have been found. Another reason might be that those participants who were resilient and thus had a higher resiliency score were past the point of using humor as a coping strategy. Perhaps they had already accepted the devastation of the storm, realizing that they survived and were ready to move forward. Humor may be like denial in that it is successful when used as a short term coping strategy, but when used for a longer period of time can have less of an impact on one's life. Denial is an effective coping strategy when used for a short period of time (Boss, 2002). Denial buffers the harsh reality allowing a family to survive daily life. However, when used for a long period of time, denial becomes an ineffective coping strategy because it does not allow the family to accept the current situation and appropriately respond to it. Humor may have a similar effect on families. Using humor as a short-term coping strategy may allow the family to cope with the stress that exists. However, when used for a longer period of time, humor may hinder the family's ability to become resilient.

Future studies need to include humor assessments to learn more about using humor as a coping strategy.

## CHAPTER 6

### DISCUSSION AND CONCLUSIONS

The purpose of this study was to explore the use of humor by survivors of Hurricane Katrina. Humor usage was then compared to the level of resiliency reached by the participants. Humor usage as a coping strategy by families who survived a disaster had not been previously explored.

Most of the families did use humor during their interviews even though no humor assessment was used. Through qualitative analysis, three research questions were addressed. The first was comparing the current data to the conceptualizations of Wanzer et al. (2005). This analysis revealed that the most frequent type of humor used was language with expressiveness humor as the second-most often used type of humor. The second research question allowed humor usage to become more situation specific to the data. Two new humor categories were created which included post-disaster life and financial concerns. These two new humor categories were able to describe the post-disaster world that the participants experienced on a daily basis. The third qualitative research question allowed for the most salient aspects of the research to be discussed. This included the themes of adversity that each participant faced as well as the endurance that allowed him or her to overcome the tragedy of Hurricane Katrina. The quantitative analysis did not show any significant findings linking humor usage and the participant's resiliency score.

As previously mentioned, in Chapter 4, the findings of this study corroborate those of previous humor studies (Bizi et al, 1988; Frankl, 1959; & Henman, 2001). Humor usage as a coping strategy fits into the category of efforts to manage negative emotions (Pearlin & Schooler, 1978). The families that used humor throughout their interviews helped to curb those

negative emotions, even if it only lasted for the duration of the interview. The healing process takes a long time and begins with only one step. Walsh's framework includes humor usage in the category of communications. This allowed the participants to communicate in a more positive way by being able to laugh and joke about their current situation instead of only thinking about the loss they encountered due to the devastation of Hurricane Katrina.

The findings from this study must be considered within the context of several limitations. In addition to those mentioned in Chapter 4, including that a convenience sample was used of those residents that had already returned home, this study lacked a humor assessment. Without the use of a humor assessment, the examples of humor that were found were that of natural dialogue that emerged during the qualitative portion of questions. The findings from this study represent those living in Southern Louisiana and may not be generalized to other samples.

#### Future Research

Future research should investigate the relationship between the use of humor as a coping strategy and resiliency in a more direct way. The investigator should include the use of a humor assessment such as the Martin and Lefcourt (1983). By looking at these variables in a more direct way, an examination into the possibility of a link between humor and resiliency will be able to be explored. Within the future research investigators should include a coding system to also include inflection and voice changes in regard to humor to gather all of the information possible from the interview. Research should include in the coding system a way to code all instances of humor including laughter (nervous or humorous). Perhaps the interviewer could also make notes during the interview about the participant's expression and voice inflection to coincide with the transcribed interview giving a more complete picture of humor.

Future research should also focus on those populations affected by a disaster. Little research exists on humor usage by families affected by a disaster. This type of knowledge would be beneficial to those families living in disaster prone areas such as Southern Louisiana.

Future research should also focus on the current economical crisis the nation is experiencing. The research can explore the relationship between the use of humor and family resiliency. The current economy is a stressful environment for many families. Inevitably, some families are able to experience resiliency while other families are not. The relationship between the use of humor and family resiliency under other traumatic conditions would be an interesting topic to explore.

### Implications

This research demonstrates that the people of Southern Louisiana who were affected by Hurricane Katrina were able to use humor even through such a devastating time. The participants were able to joke and laugh about their current situation showing the strength and perseverance of these people. Those who are trained to work with these types of populations should be taught about sensitivity to cultural humor and the use of disaster humor. Relief workers should also be taught that if those people they are helping use humor as a way to cope that it is not necessarily an invitation to the relief worker to laugh and joke about the current situation. Those suffering may think the relief workers are laughing at them and their situation, which is an inappropriate use of humor.

Educators need to include humor as a more widely used coping strategy. If more research is done on the positive effects of using humor as a coping strategy, then it can be a more accepted coping strategy. In addition to this, an item that should be included in residents' grab

and go” hurricane preparedness kits is something that will help them to laugh and use humor during the time of uncertainty. Sometimes people just need to be told its okay to laugh.

### Conclusion

Humor allows people to laugh and joke even during tragic times. Sometimes, this is the way people want to or need to cope with disasters. Family stress theory discusses different stressor events that can happen throughout one’s life as well as appropriate reactions to those events. Humor fits into these theories under different areas in different models. Sometimes humor can be seen as a resource, other time as a perception of an event, or even as a communicative tool. Regardless of where humor fits in, it is a coping strategy that should be more widely taught and used.

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