12-1-2002

Transfer Trauma Following a Community Evacuation of the Institutionalized Elderly

Marlys J. Bratteli

TRANSFER TRAUMA

FOLLOWING A COMMUNITY EVACUATION

OF THE INSTITUTIONALIZED ELDERLY

by

Marlys J. Bratteli
Bachelor of Science, Social Work, University of North Dakota, 1979
Master of Science, Social Work, University of Wisconsin-Madison, 1985

A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota
December
2002

The dissertation, submitted by Marlys J. Bratteli in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

Myrna K. Olson
(Chairperson)

John DeLane Williams

Kathleen Gerdeman

Margaret B Shaffer

Richard L Jacobs

This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

Joseph D Benoit
Dean of the Graduate School

December 3, 2002
Date

PERMISSION

Title Transfer Trauma Following a Community Evacuation of the Institutionalized Elderly

Department Teaching and Learning

Degree Doctor of Philosophy

In presenting this dissertation in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the library of this University shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the professor who supervised my dissertation work or, in her absence, by the chairperson of the department or the dean of the Graduate School. It is understood that any copying or publication or other use of this dissertation or part thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of North Dakota in any scholarly use which may be made of any material in my dissertation.

Signature Marlys J. Brattelie

Date 11-29-02

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

Figure Page

ACKNOWLEDGMENTS

I would like to thank Dr. Myrna Olson, my advisor and chairperson of my doctoral committee for her ideas, guidance, and encouragement in this project. Her support and friendship throughout my graduate program was an inspiration. I look forward to continued work with her as a mentor and colleague. I would also like to thank the members of my doctoral committee, Dr. Kathleen Gershman, Dr. John Williams, Dr. Margaret Shaeffer, and Dr. Richard Ludtke, for their suggestions, interest and support.

Special friends, Dr. Greg Sanders and Dr. Mavis Kelley, provided limitless support and offered guidance that enhanced the project. A special thank you to Julie Arnold who served not only as a typist, but a friend when I needed it most.

Thanks especially to the people who made it all worthwhile, my family. First, my children, Derek, Shiloh, Mitchell, and Zachary, who believed in me even when I found it hard to believe in myself. Second, my parents whose encompassing love provided a firm foundation of respect for older adults. Darrell, who offered support, and dealt with some of the stressful days. And finally, to all of my friends who offered support and encouragement in so many ways. I could never have finished this project without each of you.

Finally, I would like to thank the participants in this study, and the organizations that helped me locate them. Each of them had an important story that was worth telling.

It is my hope that society will listen and make the changes that are necessary to enhance their lives.

This study is dedicated to all older adults who have lived through unimaginable experiences. You are the foundation for all of our tomorrows.

ABSTRACT

This study examined the impact of evacuation on the institutionalized elderly following the 1996-97 Greater Grand Forks flood. Older adults, living in two long-term care facilities, were evacuated to temporary shelters. Later moved to other long-term care facilities or to the homes of family members, they experienced multiple moves. In order to learn what impact the evacuation had on the institutionalized elderly, two major questions were studied. These were:

- What were the experiences of the institutionalized elderly during the evacuation?
- What were the coping strategies used by the institutionalized elderly?

Data were gathered using triangulation: interviews, observation and supplemental resources. The information was analyzed to identify codes that represented the data.

Codes produced categories of related information that were further defined as the themes of the findings. The identified themes were: advocating for an advocate, loss of community, diminishing locus of control, and negative correlation between multiple moves and health.

This study found that the institutionalized elderly needed an advocate. Declining health and losses led to their inability to seek the services that they needed to maintain a quality of life. Family members, or if unavailable, other support networks were needed to fill this role.

Community continued to be an important aspect of their lives. The elders' sense of security and connectedness had stemmed from the supports available through the community. When this connectedness was lost the older adult ultimately experienced a decline in the support networks.

Internal and external locus of control is essential to self-efficacy. When this locus of control was diminished or eliminated, the older adults in this study believed that they had little or no control over their lives.

Multiple moves exacerbated transfer trauma leading to an inability to access past successful coping mechanisms. When they could no longer cope, the older adults were unable to draw the strength to deal with declines in physical and mental health.

In general, this study found that transfer trauma related to evacuation and the efforts to find a permanent home had a negative effect that impacted the institutionalized elderly physically, emotionally and mentally.

CHAPTER I

INTRODUCTION

Disasters are divided into two forms, natural and technological or manmade. Classifications within each of these two forms include: earth, air, fire, water and people (Taylor, 1989).

Disasters are extreme events occurring within a distinct time period. According to Freedy, Shaw, Jarrell and Masters (1992) there are several reasons for research on disasters. "First, disasters are common events affecting large numbers of people . . . . Second, broad ranges of psychosocial problems have been associated with exposure to various disasters (p. 442)." Problems, including Post-traumatic Stress Disorder (PTSD), anxiety disorders, depression, psychosomatic complaints, substance abuse, brief reactive psychoses, domestic violence, and divorce, have been shown to significantly increase following a disaster (Gibbs, 1989; Rubonis & Bickman, 1991). Finally, although psychological distress can dissipate after the disaster event, significant adjustment difficulties can persist for years. Research provides the opportunity to understand the link between disasters and psychological distress.

This research study will focus on the impact of a natural disaster, the April 1997 Greater Grand Forks flood, on the institutionalized elderly. Demonstrated links between the disaster, subsequent evacuation and psychosocial distress will be discussed.

Natural Disasters

Earthquakes, hurricanes, tornadoes, and floods are just a few of the disasters in the news on a nearly daily basis. According to the United Nations, Department of Humanitarian Affairs (1997), natural disasters kill more than one million people around the world each decade and leave millions more homeless. Of all disasters, those that are water-related--flood and drought--affect more people and cause more damage than any other disaster. Of these, the frequency of floods is growing more rapidly than other disasters (Federal Emergency Management Agency (FEMA), 1997).

1996-97 Greater Grand Forks Flood

In mid April 1997, Grand Forks, North Dakota and East Grand Forks, Minnesota experienced a flood of disastrous proportions. Called the "500 year" flood, it impacted every person in the two communities and much of the surrounding area.

Residing in Grand Forks at the time of the flood, I, too, experienced the evacuation. Upon returning to the community my family lived in a FEMA trailer for five months. Throughout the evacuation and reintegration process, I listened with other community members to television and radio broadcasts and religiously read the local newspaper for details about the disaster. In the remainder of this section I will share information gathered from the media, videos that were produced and the experiences of community members to provide an overview of the flood's impact on the community as a whole.

The magnitude of the flood led to the largest evacuation, per capita, in the United States since the Civil War. Beginning early in the winter of 1996-97, the upper Midwest experienced heavy snowfall, strong winds, and unusually cold temperatures. The Red

River Valley, which includes the Greater Grand Forks area, was not spared. This region endured eight blizzards, including Blizzard Hannah, considered to be one of the most intense storms in decades. Even before the flood waters rushed into the communities, President Clinton had twice declared the entire state of North Dakota a disaster area.

Over the weeks and months of that winter many conversations centered on the possibility of flooding. The National Weather Service predicted that the Red River, which separates the communities of Grand Forks and East Grand Forks, would crest at 49 feet. Community leaders assured the residents that this depth of water would cause some minor flooding, but it could be contained to the low-lying areas. Most people were cautiously optimistic, since they had dealt with flood protection in the past and had found success with raising the dikes and sandbagging.

During the first two weeks of April the National Weather Service would revise their crest prediction eleven times, thus raising the anxiety level of the residents of the two communities. By April 15, 1997, the city officials were warning of possible evacuations, although they felt that it would be limited to a few hundred people. Water was rising however, at a rate of an inch an hour, two feet a day. The National Weather Services prediction of a 49-foot crest was clearly inaccurate. The warnings of an evacuation became reality on April 17th when a dike in the city cracked. Water flowed into the neighborhood and several hundred residents were evacuated. The first of the long-term care facilities, an assisted living unit, was evacuated during the middle of the night. Residents were awakened to shouted instructions that they were being moved by boat to another facility. Many had to be carried through two feet of water while listening to the sounds of sirens and helicopter blades.

On April 18th floodwater flowed over the dikes in a way never anticipated by city officials. As thousands of people left with the few belongings they could carry, their homes were being destroyed. Many had water to the rooftops. When it appeared that the entire Greater Grand Forks area would be destroyed by floodwater, a fire started in the downtown area. City officials were now fighting two forces. It took over twenty-four hours for the fires to be brought under control, during which time eleven buildings had been destroyed and the floodwater continued to rise. All infrastructures were destroyed or interrupted including water, sanitation, electricity, telephone, and transportation.

One hundred percent of the population of East Grand Forks, Minnesota and ninety percent of the population of Grand Forks, North Dakota were evacuated. As the evacuation occurred, the frail elderly residing in institutional quarters had to be rapidly relocated with little advance notice and/or planning. The facilities were scattered throughout the community, but all required evacuation. Those closest to the river and in the lower areas experienced staged evacuation, first moving to a school gymnasium with cots and hard chairs, only to be later moved to better quarters for the longer stay. While the infirm elderly were abundant, the Hospital was also evacuated representing an even higher acuity of health care needs. The competition for space, vehicles and attention was great.

The problems surrounding evacuation were exacerbated by the fact that several other facilities within a hundred mile radius of Greater Grand Forks were also dealing with flooding and potential evacuation. Two of these outlying facilities needed to also access other long-term care beds due to evacuation.

In the aftermath of this disaster, the community began a vast rebuilding effort. Several of the facilities, however, were not able to return to the level of care offered pre-flood. Out of 554 beds in service at the time of the flood, only 332 had been returned to service one year later.

Problem Statement

It is well known that individuals in the Greater Grand Forks area who were living in long-term care facilities pre-flood were displaced for a period of time, many permanently. This fact, however, does not tell where these people went, how they prepared for the moves and what the impact upon them was. While the media focused on the impact of the flood on several population groups, the institutionalized elderly were not included. This study will tell the stories of the elderly individuals who lived the experience.

Purpose of the Study

Few plans ever go as exactly as intended, and the evacuation plans of these facilities that had been so carefully designed were no different. When creativity and flexibility were needed, the administrators met the challenge. They moved people in wheelchairs and beds out of the path of oncoming floodwaters. We can only imagine the anxiety, uncertainty and stress that must have been part of these decisions. I believe that it is important to acknowledge that choices had to be made in a short amount of time and often few options were available. This study was not meant to diminish the accomplishments of the staff and administrators who successfully moved over two hundred people without serious injury or loss of life. While some of the reflections from the participants of this study or the recommendations offered may appear critical, that is

not the intention of the study. Rather, it is an opportunity to consider ways of planning for the unthinkable or the unimagined.

The purpose of this study was to share the stories of ten people who lived the Greater Grand Forks flood experience. The major questions to be studied were:

- What were the experiences of the institutionalized elderly during the evacuation?
- What were the coping strategies used by the institutionalized elderly?

These questions provide a rare glimpse into the impact of a natural disaster on people who are often forgotten. It is anticipated that the information will be used as long-term care facilities design future evacuation plans, but it can also be helpful when considering an unplanned move under any circumstances.

Limitation of the Study

It has been estimated that five percent of persons sixty-five years of age and older live in long-term care facilities (Sanders & Bratteli, 1994). While this represents only a small portion of the elderly population, it is a group often forgotten. I decided to limit this study, however, to older adults living in two local long-term care facilities, thus eliminating a significant portion of the older adult population. Certainly the older adults living in the Greater Grand Forks area outside of long-term care facilities were also impacted in many different ways and deserve to have their experiences studied in future research.

Possible bias in a study is considered a limitation. According to Van Manen (1990) the problem is that our "common sense" pre-understandings, our suppositions, assumptions, and the existing bodies of scientific knowledge, predispose us to interpret

the nature of the phenomenon before we have even come to grips with the significance of the phenomenological question. This potential limitation must be addressed even before beginning the data collection. I had worked with many of the participants prior to the flood and so had information that may have influenced the results and the interpretation of those results. Recognizing possible bias and identifying situations when it would arise limited its impact. This limitation became a strength because these participants and administrators trusted me, thus allowing access to information that otherwise may not have been made available.

Older adults, particularly the institutionalized, are often lonely and hungry for attention. This vulnerability can lead to their becoming dependent upon the researcher. Oftentimes the researcher or interviewer may be one of the few people who take an interest in the person and what he/she is feeling. They may not want this relationship to end when the interviews have been completed. The researcher, in turn, may extend the study to be there for the participants. I found this was best dealt with by being honest about the length of time that would be needed to complete the interviews and by being cautious not to promise future visits after the interview process has been completed.

A concern that ran throughout the data gathering process was that the participants would be unable to complete the interview phase due to health problems or another move. Older adults, particularly those living in long-term care facilities, do have health issues that must be recognized. The frailty of their health did limit the length of the interviews and, at times, caused appointments to be canceled. In addition, some participants were transferred to another facility during the data gathering process. At that time the negotiations for entry into the new facility began, which postponed the interview

process; overall, this lengthened the time between interviews. When more than a month passed between interviews, time had to be spent reviewing what had already been discussed. This limitation, while extending the length of the data gathering stage, also became a strength. I was aware that these concerns existed, so I worked to stay focused and on task. In turn, the participants expressed their appreciation that the process continued even under difficult circumstances. They felt that the information that they had to share was important because I was willing to travel great distances to continue the interview process.

As previously mentioned, natural disasters occur frequently. This study looks only at one disaster and the experiences of only a few who lived through it. Can the information obtained in the study be generalized to other disaster experiences? Because this study is phenomenological, it is designed to look at the specific experiences of each individual interviewed (see Chapter III). While the experiences of participants in this study cannot be generalized to every natural disaster or even to every flood, they can provide an insight into ways that evacuations and subsequent moves might be handled in order to limit relocation trauma.

Summary

The 1996-97 Greater Grand Forks flood impacted the lives of everyone living in the area and this impact continues in 2002. Most people have had the opportunity of dealing with their losses and have begun the healing process. For many people this was possible because they could talk with others who had similar experiences, whether that be trained counselors, the clergy, friends and family. Multiple studies have been completed in an effort to determine the impact of the flood on various age groups. Little

information has been gathered on the older adult population, particularly those living in long-term care facilities. The impact on this group, it can be argued, may be greater than on any other group.

This research study focused on the elderly residents of two long-term care facilities in the Greater Grand Forks area. Ten residents from these facilities were invited to share their experiences following the 1996-97 flood. It is anticipated that by analyzing the stories about the evacuation and subsequent moves these individuals made at the time of the disaster, we can learn what is needed to assist elderly individuals during and after future disasters.

In subsequent chapters I have provided the reader descriptions of: the relevant literature (Chapter II), the methodology used in this study (Chapter III), the findings (Chapter IV), as well as implications of the research and recommendations for future research (Chapter V).

CHAPTER II

REVIEW OF THE LITERATURE

This chapter is a review of the literature related to natural disasters and the impact on various population groups. The review is divided into five major sections. The first section is a review of literature on disasters in general, including a detailed explanation of the impact of disasters. Next, I provide literature that narrows the impact of disasters to those caused by floods. In the final three sections I provide a description of a disaster's impact on the general population, the elderly, and the institutionalized elderly respectively.

Disasters

Since ancient times man has struggled with disaster and its impact. Disasters have been credited with the destruction of entire communities, the migration of large population groups and the revamping of social, economic and political conditions of a region. Divided into two forms, natural and man-made, society today is affected by disasters around the world. Mass communication makes us aware of the destruction, and we become witness to it.

What constitutes a disaster? According to Quarantelli (1985), it is a combination of seven elements. These are (a) physical agents such as fire, flood and tornado; (b) physical impact--the destruction; (c) assessment of physical impacts--the damage has to exceed certain thresholds; (d) social disruption--due to physical damage; (e) social

constructions of reality--perceptions of the seriousness of the impact; (f) political definitions--official disaster declarations; and (g) demands for action--which exceed normal response capabilities. Kinston and Rosser (1974) referred to disaster as a situation of massive collective stress. Merriam-Webster's Dictionary (1996) portrays the impact on people when it defines disaster as a sudden and great misfortune.

More important than the definition of disaster is an understanding of its impact. This chapter will review the literature to determine ways that diverse groups are affected by disaster, particularly floods. The populations examined are the general population, the elderly, and finally, the institutionalized elderly.

Why study disasters? Studying disasters can provide individuals and communities with the information needed for preparedness that will decrease the stress associated with disaster. Fritz (1961) states that disasters differ in predictability, probability, controllability, precipitating agent, origin, speed of onset, scope and destructive effects. Even with this extensive variability, we can learn from each event and be better prepared for future disasters.

A disaster brings with it several problems that must be addressed. According to Beinin (1985) these include:

- The nature of the disaster, whether it poses continuous or intermittent danger.
- The effects of extreme weather conditions (strong wind, rain or snow, dramatic changes in temperature).
- The extent to which communication and transportation are crippled, and consequently the isolation of the stricken area.

- The scope of evacuation, and the ensuing problem of refugees and provision of medical care to them.
- The degree to which facilities and staff of health institutions, water supplies, and sewage systems are capable of functioning. (p. 104)

Beyond the information that can be learned about the physical nature of disasters is the human element. Analyzing behaviors in past disasters can lead to an understanding of how people will react in the future and, more importantly, how their reactions can be improved. Areas of disaster study must include: problems of preparation for the disaster, problems of disaster warning, problems in the period of disaster threat, problems in the period of impact, problems in the immediate post-impact period, and long-term problems (Fritz, 1961).

Pre-Impact Phase

During each of these times or phases certain types of behaviors are expected. The first or initial phase is the pre-impact, encompassing the preparation, warning and threat. Within this phase people often seek independent confirmation of a disaster warning. They seldom respond to the initial warning, but try to gain additional information beyond the first announcement. The warning is more likely to be believed if there is some visible evidence of the danger--hearing sirens, seeing the clouds or the river rising. Even beyond this additional information, they will seek supporting information. This may include talking to others to determine what they have heard or checking multiple sources, such as going through several television channels and listening to the radio. This is one of the reasons that repeated warnings can be useful. Those who need the most confirmation are

families who are separated, have been in disasters before, and are in close proximity to where the threat is expected to hit (Fritz, 1961).

Another issue is whether people will believe the warning. Those who give credence to the warning are those who in the past experienced a disaster that was predicted. They now have a basis for trusting the information provided. Solomon and Canino (1990) found that many natural disaster victims, particularly when given adequate warning, are not directly exposed to life threatening or other horrific experiences. Likewise, if a person was warned in the past and nothing happened, they are less likely to trust the warning. The believability of the warning is greater if it is an official warning offered by an official person or organization. A policeman or a member of the National Guard coming to the door is more believable than a television announcement. If others around them are heeding the warning, people are more likely to do likewise. They are, however, less likely to heed a warning if they are with peers rather than if they are with their family, even if the likelihood is that the disaster will strike (Frazier, 1979).

Subsequent warnings should be clear and offer additional information. Each source should have similar, updated information. Discrepancies in information only lead to confusion. It is important to note that people respond to emergencies and disasters much better if they are given credit. When disaster strikes most people respond in appropriate ways to help themselves and their families. Few wait for authorities to tell them what to do.

Impact Phase

The next two phases, impact and post-disaster, deal primarily with the ways in which people cope with the disaster. According to Taylor (1983), the means used by people to cognitively adapt to a threatening event such as a disaster is centered around three themes: "a search for meaning in the experience, an attempt to regain mastery over the event in particular and over one's life more generally, and an effort to restore self-esteem through self-enhancing evaluations" (p. 1161). First, the theme focuses on an understanding of why an event occurred and what its impact has been. The second theme, an attempt to gain mastery, centers on ways in which a person can gain a feeling of control over the event, especially dealing with ways to ensure that it never happens again. Finally, the traumatic event can chip away at self-esteem. It is important for the individual to identify his/her strengths. Having another person recognize and point out these strengths is often the first step in the healing process. The foundation of healing is the support networks of family, friends and even strangers who come to the person's aid in a time of crisis. According to Frazier (1979) when help is needed, victims seek it first from family, friends and neighbors.

This support network may also be experiencing the effects, either directly or indirectly, of the disaster. A study by Morgan Martin (Frazier, 1979) found altruism, affection, cooperation, and group solidarity to be the prevalent characteristics in disaster situations. People who have been caught up in disasters have shared a common experience. Their suffering has usually not been in isolation, and, as a result, they are there to help one another. In addition, strangers become a part of the recovery process. Through mass media people from across the country and the world share in the

experience. The behaviors of those not directly affected toward those who are tend to be very generous and altruistic.

Post-Impact Phase

"The stress confronted by disaster victims is multifaceted, involving not only immediate loss and trauma but also a continuing requirement to adapt to a changing environment (Hutchins & Norris, 1989, p. 34)." Most natural disaster victims do face a range of adversities involved in the post disaster period, such as: scarcity of food, damage to property, feelings of hopelessness, and disruption of normal routines (Solomon & Canino, 1990).

The larger community becomes a very important factor in the recovery process. Viewing a disaster from many different perspectives brings meaning and validation to the experience. When others understand the importance of an event, it not only provides a framework of meaning to the initial experience, but also to the way in which recovery occurs and life is reestablished. Given adequate support, the human psyche can withstand tremendous tragedy and even gain strength from the experience.

When the support is not available it can lead to a protracted recovery period. According to Jones and Barlow (1992), negative life events are frequent precursors to the onset of anxiety disorders. These authors suggested that individuals who are vulnerable to the stress of negative life events might occasionally react to such events in much the same way one reacts to physical threats. Some of the actions and reactions exhibited by the victims seem predictable, while others seem totally unexpected. Whatever the reactions, it is important to remember that no one set of behaviors is the singular norm.

Regardless of the level of prevention and protection, a disaster will affect those involved. It is a fact that it takes a disaster for us to prepare for a disaster. What we learn can help us to better handle future disasters. Communities that have experienced a disaster should be better equipped to deal with the next disaster. However, the literature has shown that it is important to use the information quickly, because what is learned wears off within a short amount of time (Frazier, 1979).

Flood Disasters

According to the Federal Emergency Management Agency, FEMA, water related disasters, floods and droughts, are the nations number one natural disaster. Frazier (1979) states that floods are the most widespread natural hazard, and every state has been affected. He goes on to say that the increased toll from flash floods is due to nature, performing as it usually does, colliding with an increased and more urbanized population settling in and occupying sites that are ready targets for floods. This country was founded on the necessity to build along water, rivers and lakes for food, trade and transportation. Today's growing population has moved even further into the world's floodplains, making more people vulnerable to a water related disaster. A majority of floods are not flash floods taking everyone by surprise, but rather those that are anticipated. Most floods involve the slow, steady rise of a river, breaching its banks and spreading over land.

As with other types of disasters, the way humans respond to floods can often determine the extent of the tragedy. A majority of disaster preparedness planning relies on the cooperation and common sense of the people who are involved. Yet detailed plans

are needed because not everyone can be counted on to cooperate or use common sense. At times the traumatic effects of the disaster interfere with normal behaviors.

Even when carefully formulated plans are enacted, the results of a disaster can be devastating. According to Beinin (1985), traumatic, somatic, and infectious morbidity increases are typical public health consequences of floods.

Trauma in the General Population

The definition of what constitutes a traumatic event as well as symptoms of trauma may change among individuals, families, groups, communities, and cultures (Zinner & Williams, 1999). According to Herman (1992) traumatic events call into question our basic human relationships and breach the attachments of family, friendship, love, and community. They shatter the perception of self that is formed and sustained in relation to others and undermine the belief systems that give meaning to human experience. The victim's faith in a natural order is violated and it casts the victim into a state of crisis. The process of recovery from crisis is difficult and can take many years.

Pre-Impact Phase

The successful negotiation of the process, from preparation through recovery, determines a person's ability to adapt to a disaster. Preparation takes two forms, passive and active (Zinner & Williams, 1999). Passive preparation is the plan that is developed in case a disaster should occur. It includes the resources that a community can draw upon if needed. Active preparations are the specific preparations that are the groundwork of defense (i.e., constructing dikes, sandbagging). The level of preparedness often determines the impact of a disaster.

Impact Phase

Extensive plans do not guarantee an escape from disaster, but planning can minimize the impact. When disaster strikes in spite of the preparations, communities and individuals assess what could have been handled differently. "The process of appraisal, whereby an individual judges an event to be a harm/loss situation, a threat, or a challenge, has an important impact on future actions (Lazarus & Folkman, 1984, p. 229)." According to Williams (1997), the psychological implications are comprised of seven stages. These are: (a) shock--disbelief, denial, hurt, pain, and a feeling of being overwhelmed; (b) anxiety--fear, tension, nervousness, anger & resentment; (c) confusion--irritability, increased stress & inability to make decisions; (d) clarification--coping & preliminary planning; (e) acceptance--believing & understanding; (f) resolution--planning & finding closure; and (g) recovery--healing, reconstruction & rebuilding.

The initial short-term reactions usually include a numbing feeling to the event, sluggishness in thinking and decision-making, anxiety, grief, despair, sleep disturbances, and denial (Gerrity & Steinglass, 1994). After the initial reaction, victims may experience more intrusive symptoms, including recurrent recollections, dreams, intense distress associated with reminders of the initial event, and feeling as if the event were occurring again (American Psychiatric Association, 1987). While these reactions can continue over a long period of time, there are additional long-term responses that continue for more than two years post-disaster. These include "physical complaints, survivor guilt, listlessness, apathy, decreased social interaction, and chronic depression" (Gerrity & Steinglass, 1994, p. 225). Avoiding reminders of the trauma may also be a symptom, even to the point of avoiding people such as family or friends. These

symptoms can bring on additional stress that, in turn, exacerbates the distress. Stress due to trauma is a normal response, but it can lead to abnormal reactions.

Post-Impact Phase

The first task of healing after a crisis is to acknowledge to the fullest extent possible what has happened. The second task is to try to restore community equilibrium (Zinner & Williams, 1999). Communities are never the same after catastrophic events. The reconstruction process of building dikes and removing the homes that were lost often leads to people moving away. This destruction and out-migration leads to community grief.

Community grief turns into a time of mourning through ceremonies or rituals commemorating the event. Only when community grief is resolved does the acceptance of the loss become a cognitive and emotional reality within the community's identity. The loss is then recognized as permanent, and accommodations are made. Certainly, community memory of the loss may continue to involve pain, but, conversely, the event may become part of the communal history shared by all group members, an event that may become an important source of pride and positive group identity, if only in the surviving of catastrophe (Zinner & Williams, 1999; Wolfelt, 1987). By joining together, developing rituals and ceremonies, and by talking about the event over and over and thereby finding a forum for pain, survivors and their communities begin to heal (Zinner & Williams, 1999; Lord, 1996; Wortman, 1983).

The traumatic event can change meaning as time progresses for individual community members. Early on, victims are most concerned with survival and minimizing the impact of the disaster. As this threat dissipates, the victims' attitude

usually turns to anger at the situation or the officials involved. They may also be angry with God for allowing the disaster to occur.

Typically, people will experience a clustering of life events. When this occurs it appears as though negative events happen one right after another. This clustering is associated with the onset of mental illness and an increased level of anger (Eaton, 1978).

In addition to the increase in mental illness is the increase in other health related crisis. The link between stress associated with trauma and illness has been clearly identified. According to O'Brien's (1998) study, results have varied, but the majority of research does support the link between stress and illness. There is empirical evidence for the occurrence of somatic illness, or even death, following trauma without physical injury (O'Brien, 1998; Falger, Op den Velde, Hovens, Schouten, DeGroen, & Van Duijn, 1992; Carmel, Koren & Ilia, 1993; Blair, Blair & Rueckert, 1994; Lucas, Leaker, Murphy, & Neild, 1995; Patti, Pignalberi, Chimenti, Cianflone, & Maseri, 1995; Bowman & Markand, 1996).

Traditionally, trauma (or stresses) was generally considered to have a modifying rather than causative effect on illness, affecting the timing rather than the nature of illness, both physical and psychological (O'Brien, 1998). More recent study has suggested a more clear-cut association between trauma and mental illness. O'Brien (1998) reviewed several studies linking illness with trauma and found the following:

- All studies show increased mental illness after trauma.
- Those who develop Posttraumatic Stress Disorder (PTSD) are more likely to have a co-morbid illness; the nature of the co-morbid iliness varies between studies.

- Some subjects develop other illnesses in the absence of PTSD.
- Some studies show what appears to be a different effect upon PTSD from the effect upon other illnesses. (p. 123)

Trauma does not have to accompany bereavement, nor does bereavement produce trauma, but when the two accompany each other, it becomes a major life event. Zinner and Williams (1999) found that trauma destroys life's long-held meanings. Daily living is no longer predictable or safe and those directly affected no longer see themselves as immune to harm. Dweck and Wortman (1980) found that exposure to uncontrollable aversive outcomes results in learned helplessness.

Psychological trauma may or may not reveal itself immediately. "When it does occur, trauma--physical, mental, or spiritual--impedes grieving (Zinner & Williams, 1999, p.6)." The grieving process for the community and individual community members is an important part of moving beyond the trauma. Each of us grieves in our own way and for different losses. The significance and meaning of a loss depend upon the survivor's valuing of the object (Zinner & Williams, 1999). When the grief and trauma interfere with everyday routines it may be posttraumatic stress disorder.

PTSD occurs when the more intense reactions related to loss or the repercussions from loss, perceived or actual, take over one's life. Zinner and Williams (1999) believe that the greatest impact on (PTSD) may be from loss of community because the ability of people within a community to share their experiences with others who had similar experiences is important to mental health. The core of PTSD often is unresolved grief stemming from repressed emotions (Zinner & Williams, 1999; Widdison & Salisbury, 1990). Many people will exhibit some symptoms of a stress disorder, which is a normal

response, but these symptoms are short lived. Post-traumatic stress disorder, major depression, generalized anxiety disorder, and substance abuse are all common following trauma. People often will experience more than one of these disorders and may experience all of them.

Earliest studies of posttraumatic stress disorders were centered around war. According to Ursano, McCaughey, and Fullerton (1994), early systematic studies across different types of traumas note two types of responses: intrusive and denial-avoidant symptoms. Horowitz (1976) elaborated on these two types of responses. He identified several themes reported by patients: fear of a repetition of the stressful event, shame over helplessness or emptiness, rage at the source of the stress, guilt or shame over aggressive impulses, fear of identification or merger with the victims, and sadness over loss.

According to Ursano et al. (1994), one of the best predictors of mental health problems after a traumatic event is the severity of the trauma. Even those with no prior history of psychiatric illness are at risk due to normal reactions to stress and difficulty in adjusting to the effects of the event. One of the most successful interventions for a traumatic event is social support. Herman (1992) outlined key factors of social support that are needed to ensure successful resolution of the trauma.

- In the immediate aftermath of the trauma, rebuilding of some minimal form of trust is the primary task. Assurances of safety and protection are of the greatest importance.
- Once the sense of basic safety has been reestablished, the survivor needs the help of others in rebuilding a positive view of the self. This includes tolerance of fluctuating need for closeness and distance.

- Finally, the survivor needs help from others to mourn the losses.

According to research conducted by Harvey, Stein, Olsen, Roberts, Lutgendorf, and Ho (1995), those who felt that they had little control over the events or were helpless in the face of a crisis judged their losses as serious. The most successful coping mechanisms employed by the respondents of the Harvey et al. (1995) study included praying, confiding, and social bonding with family and friends. In addition, the ability to share stories or talk about the experience and the losses with others was an important coping mechanism. Ursano et al. (1994) concluded from their study that social supports directly and indirectly contribute to the behavioral and mental health outcomes of individuals exposed to disasters.

The core experiences of psychological trauma are disempowerment and disconnection from others. Reconnection cannot take place in isolation. Herman (1992) states that recovery unfolds in three stages.

- The central task of the first stage is the establishment of safety.
- The central task of the second stage is remembrance and mourning.
- The central task of the third stage is reconnection with ordinary life.

The grief a community experiences after a traumatic event may become either a developmental crisis or opportunity for that community. It may stagnate a community's future development or propel a community into new areas of growth. New growth within the community will aid in the development of new support networks to replace those lost or destroyed during the disaster (Zinner & Williams, 1999).

Having a plan of action can empower a community. Offering enough information to community members so they can understand what happened and can evaluate possible

alternatives for action lessens the impact of traumatic events (Zinner & Williams, 1999). They need to: (a) provide for or ensure safety and security; (b) provide a mechanism to allow survivors to ventilate feelings; (c) enable validation of feelings individually or with others, if possible; (d) predict general patterns of crisis reactions over time; (e) prepare survivors for future possible reactions; and (f) provide referral sources (Zinner & Williams, 1999, p. 108; NOVA, 1994).

One of the first questions asked by survivors is, how long will the healing process take? When will life be back to normal? Research varies, but a majority of studies have found that disaster victims are often impacted for two to five years. This time frame, however, can be further broken down into stages. Krause (1987) found that the major effects of the storm diminish in about 16 months for the general population. Post-disaster recovery, rebuilding of homes and community, lasts for approximately two to five years. Grief, and the risk factors associated with a disaster continue for 4-7 years following the traumatic event (Zinner & Williams, 1999; Lehman, Wortman, & Williams, 1987). The elderly often need a greater amount of time, five years or more, to deal with the impact phase before even reaching the grieving stage.

Trauma Among the Elderly

The problems and losses resulting from a disaster fall hardest on the aged who are least prepared to overcome them. While the elderly are equally the victims of the ravages of any disaster, when disasters strike, older persons do have special needs (Administration on Aging, 1977).

Pre-Impact Phase

The needs of the elderly must be met through adequate community preparation before, and after the disaster. Even though they have lived through multiple traumatic experiences, the elderly often have difficulty. They may experience slowed response to warnings, delayed reaction time, or sensory deprivation (e.g., hearing or vision loss) that causes difficulty in comprehending radio or television alerts. On the face of it, the elderly seem to suffer disproportionately in stress producing events such as natural disasters. "It is almost axiomatic in disaster research that those fractions of the population least able to respond to the demands of disaster will correspondingly be the most victimized in the event of a natural catastrophe (Bolin & Klenow, 1982-83, p. 284)." Research also supports the contention that the elderly suffer disproportionate material losses in natural disasters (Bolin & Klenow, 1982-83; Cohen & Poulshock, 1975).

According to the Administration on Aging (1997), disaster planning must rely on anecdotal information regarding this population and the first hand experience of trained observers who care for the elderly. Each new disaster seems to uncover unanticipated problems that need to be addressed and so this type of research continues to be an ongoing need.

Impact Phase

Bolin and Klenow (1982-83) found that twice as many elderly as younger victims report their situation as worse than those around them. Thus, while elderly victims may lose no more than others in disasters, they perceive their losses as greater. This study further found that the elderly were (a) more likely to be injured in the storm than others

and were more likely to have experienced a storm related death in their household; (b) tended to underutilize aid from most aid sources, both formal and informal; (c) exhibited a lower incidence of emotional and family problems than did the younger victims; and (d) found to be slower in their economic recovery.

Why study older people in disasters? How are the elderly different from the general population? Many older persons present problems that, at least in magnitude, are not to be found in other age groups. Theoretically, it is important to consider an analysis of age statuses and age-related roles (Baker & Chapman, 1962). In addition, research has shown that elderly victims have a greater need for rehabilitation and recovery services than younger victims but do not have these needs met (Bolin & Klenow, 1982-83, Friedsam, 1961, & Moore, 1958). Not only are they not receiving these services, but also Bolin and Klenow (1982-83) found that in all instances, the elderly were less likely to accept help from support networks of friends, neighbors, and relatives than were the younger victims. Bolin and Klenow (1988) found that social support from a spouse was most important, but support from family and friends was also important.

Formal supports offered were considered to be important, but the elderly were unwilling to accept help. They did not want to access services that could be construed as "welfare". In research conducted by the Administration on Aging (1977), the elderly have been found to have a reluctance that may have been the result of a stigma against asking for help, independence or some people's belief that others were worse off. Even when linked with medical services, they were reluctant to use the needed services.

In addition, Area Agencies on Aging have reported to the Administration on Aging that the initial impact shock may last longer for the aged and the actual beginning

of recovery (both physical and psychological) may not take focus for some period of time. This may mean that older individuals will require months and even years working through the bereavement process.

Freedy, et al., (1992) found that resource loss, such as the loss of community, was positively related to psychological distress and was relatively more important in predicting psychological distress than personal characteristics and coping behavior. In fact, resource loss constitutes a risk factor for the development of clinically significant psychological distress.

Post-Impact Phase

"The experience of resource loss is the primary factor in determining post disaster psychological adjustment (Freedy et al., 1992, p. 444)." Certain groups, which include the elderly, may begin with fewer resources and remain more vulnerable to resource loss, coping impairment, and psychological distress following disasters or other stressful events (Freedy et al., 1992, p. 444; Hobfall, 1989).

Other recovery services, such as federal programs, were also found to be utilized less by older adults. Six variables have been found as determinants to psychosocial recovery (Freedy et al., 1992). These were social class, marital status, availability of primary group members, social support, federal aid adequacy, and the number of moves while in temporary housing. Elderly are fearful that the loss of home or requesting services places them at risk of being placed in a nursing home.

It is important when offering assistance to let older adults make decisions on the services they will access. If given adequate time and information, they will utilize the services that they feel they need. It is crucial that the persons working with older adults

provide up-to-date information, including the pros and cons of each, as well as assistance in accessing these services (Administration on Aging, 1997).

The elderly may respond more slowly to calls for disaster relief due to age-related slowing of both cognitive and motor activity. In addition, older adults suffer greater sensory impairment and illness requiring medication (Administration on Aging, 1997). They also have difficulty remembering and responding to disaster instructions.

Stress is only one component of disasters; another is deprivation. When attempting to determine the effect of disasters on older adults, research must look at economic and social resources. Many previous studies have identified a negative health consequence of disaster (Phifer, Kaniasty, & Norris, 1988; Krause, 1987; Logue, Hansen, & Struening, 1981; Miller, Turner, & Kimball, 1981; Ollendick & Hoffman, 1982; Price, 1978). Other research disagrees and finds that there is no significant health consequence linked to a disaster (Phifer, Kaniasty, & Norris, 1988; Cohen & Poulshock, 1977; Kilijanek & Drabek, 1979; Melick & Logue, 1985-86).

Although the elderly are hesitant to access needed services, it should not be construed as disinterest in their possessions. Studies have found that elderly attach more meaning to losses of possessions and more emotional importance to the loss of mementos than do middle-aged victims (Bolin & Klenow, 1982-83; Kilijanek & Drabek, 1979).

Older adults experience more secondary effects of the problems resulting not directly from the disaster but from intervening conditions produced by the disaster (Baker & Chapman, 1962). Clayer, Bookless-Pratz, and Harris (1985) found the highest rates of post-disaster psychosocial problems among remarried widows and divorcees.

They hypothesized that these individuals, having experienced the dissolution of one family, may have been more vulnerable to the threat of losing another.

Research has found mixed results from studies to determine the link for the elderly between trauma and increased mental health problems. Some studies have found that, despite the acute emotional stress so characteristic of victim populations in all disaster situations, there could be no widespread agreement that the experience would produce any significant increase in chronic mental disorders (Baker & Chapman, 1962; Drayer, 1957; Janis, 1951). Other studies have found any increase in mental health disorders related more to the questions asked and the likelihood of stating a higher stress level for older adults. Contradicting these studies was research of Bolin and Klenow (1982-83) that found "21 to 80 percent of the elderly reported some persistent emotional effects of the storm even one year after impact" (p. 292).

Trauma Among the Institutionalized Elderly

Older persons would prefer to remain in their own homes, however, physical and/or mental disabilities may make this preference no longer feasible. Older adults and their families are faced with the need to find appropriate long-term care. According to Sanders and Bratteli (1994), approximately five percent of those 65 years and older reside in a long-term care facility. Left unchanged, this rate of institutionalization will produce a large increase in long-term care residents as the larger "baby-boom" generation ages. This, however, only tells a small part of the story. It is equally important to consider the impact of relocation, including the loss of resources.

In the initial move to an institution or long-term care facility, elderly have to deal with multiple losses and the stigma of needing supportive care. Tobin and Lieberman

(1976) state that the newcomer cannot escape the dreaded identifications that include being sick, being in need of care, being closer to death, and possessing a limited and uncontrollable future. However, when given adequate time and support, the older adult can adapt and adjust.

Pre-Impact Phase

Transfer trauma among the institutionalized elderly can occur when placed at a long-term care facility. Any move for the older adult can lead to short-term confusion and an inability to cope. This is due, in part, to the lack of familiar cues at a time when the older person is dealing with other losses such as health.

According to Silin (2001), it can take upwards of six months to adjust to moving to a long-term care facility. He divided this time for adjustment into four phases. The first phase is a time of crisis when the person is most susceptible to problems associated with relocation. The crisis phase lasts approximately one week. The second phase, learning about the new environment and establishing new relationships, takes about 2 to 4 weeks. The third phase, learning subtle differences and important aspects of the home, lasts for 2 to 6 months. By six months, the older person has moved into the fourth phase, developing a routine. Each person adjusts at his or her own pace; extenuating circumstances can hinder or aid in the progression through the phases.

Adequate preparation prior to a move has been found to be a determinate of adjustment. Those who were not adequately prepared often experienced a decline in functioning, changes in behavior, depressed mood, or withdrawal. These symptoms were more intense, slowing the adjustment process. These same adjustment issues occur when the elderly are forced to relocate during an evacuation.

Impact Phase

Evacuation, with its own unique set of requirements, limits the ability to adequately prepare the elder for relocation. According to the Administration on Aging (1997), experience from evacuations of institutionalized elderly has indicated several areas that to date have been dramatically underestimated. First, the amount of time required to evacuate often does not allow staff or family to prepare the older adult for a transfer. Second, the type of shelter and the skill levels of personnel needed for this specialized type of mass care is seldom considered when developing evacuation plans. Finally, the psychosocial impact has been given little consideration.

Ekstrom (1994) located five groups of emotions that were highly variable among elderly subjects who experienced forced relocation. These were (a) "trust, mistrust, security, and insecurity; (b) powerlessness, self-estrangement and belonging; (c) guilt, shame, pride and dignity; (d) the feeling of having been violated; and (e) stress" (p. 369). Each of these groups of emotions related to environmental stability, personal ability and control over one's emotions. Through these emotions, people undertake roles and use these experiences and reactions of significant others to build self-esteem. Once again, each of those placed in the context of flood driven, forced, and fragmented relocation suggested an adjustment task of considerable magnitude.

Among the major issues suggested in the literature are memory disorders, depression, transfer trauma (leading to disorientation and depression), and multiple loss effect (AoA Disaster Manual, 1997). Transfer trauma refers to the disorientation that often accompanies initial institutionalization and any corresponding declines in health or increases in mortality. While the literature is not consistent with respect to affirming any

increase in mortality as a result of moving from one institution to another, Danermark and Ekstrom (1990) conclude that studies concur that relocation to other institutions increases mortality. Using four indicators (disability, ADL-functions, days spent in bed and days spent in medical institutions) Ferraro (1982) found all four correlated with relocation. A longitudinal study of the effects of a natural disaster on the health of older adults argued that stress in disasters would affect peoples' natural susceptibility to disease and found that a cyclical pattern was present that was similar to other stress related disorders such as post traumatic stress (Phifer, Kaniasty, & Norris, 1988).

Stressors from a tragic event come from several avenues including lack of preparedness for the occurrence of the event, lack of controllability of the event, lack of warning, greater chaos accompanying evacuation efforts, accumulation of trauma losses, duration of the trauma, and the greater number of unresolved past traumas. These aspects are similar to those that researchers report as leading to a more prolonged grief reaction and complicated bereavement (Zinner & Williams, 1999; Green, 1996).

When people lose the ability to influence their circumstances or outcomes, they lose control over their personal destinies and the adverse consequences tend to be exacerbated. This is the difference between involuntary and voluntary relocation. Indeed, health of the elderly who have been moved is related to the extent of involuntariness of the relocation (Bourestom & Pastalan, 1981). When relocation is voluntary, little or no effect is observed on mortality, while involuntary relocation is related to increased mortality. One cannot, however, determine the impact of selection in deciding who must move, thereby creating an increase in risk among the involuntary movers.

Bowlby's (1973) model of grief looks at attachment. "Throughout life, individuals attach to others for survival. Disasters and other types of traumatic events cause severe disequilibria for individuals and communities by severing those attachments (Zinner & Williams, 1999, p. 9)." The attachments can lead to learned resourcefulness or learned helplessness (Zinner & Williams, 1999). When forced to detach from support networks and an environment that is known, the elder will experience helplessness and bereavement. Bereavement and helplessness include:

- Feelings of intense fear, shock, numbness, and disbelief.
- Sadness and generalized anxiety.
- Uncertainty.
- Anger.
- Helplessness and frustration.
- Emptiness and meaninglessness.

In an attempt to limit the impact of these emotions, every effort should be made to recreate a familiar environment. The importance of constructing a familiar environment in the new facility, to aid in the adjustment of the older adult, was discussed by Reed and Payton (1996). They found that being familiar with an institution or knowing others in the institution were mechanisms used to construct familiarity. These should be built into programs and active efforts to integrate new residents. As the residents develop a sense of familiarity, they make friends, develop relationships of trust, and begin to commit to a new permanent residence. For displaced persons, the anticipation of return and the sense that one is a guest may impede these mechanisms of adjustment and again exacerbate the adverse consequences experienced by those who

perceive themselves as temporarily displaced. Correspondingly, multiple moves may contribute to a resistance to adjustment with people isolating themselves as a defensive posture to protect themselves.

Depression in later life is a common response to multiple losses such as the loss of home, spouse or job. As a result, depression is very common. Among those with mental health problems, families and friends serve as buffers to mental disorders, and yet the presence of these normally strong buffering agents during the evacuation was largely absent. Adult children and relatives in the community were tending to their own immediate needs and rarely had the time, energy or ability to help with the elders living in institutions. Again, the scenario suggests a dearth of supports that led to adjustment difficulties (Griffin & Waller, 1985).

Post-Impact Phase

Attempting to account for the adverse consequences of transfer, Danermark and Ekstrom (1990) explored the concept of the meaning of home for older people. They found that home symbolizes continuity, permanence and familiarity to people, with the elderly having the greatest development of this sense of continuity and increased familiarity needs. They are in familiar surroundings and have familiar possessions with them. The greater the time spent in a home, the greater the familiarity and the greater the sense of place becomes. One would expect this to hold in institutional living environments as well. Those of longest residence would be most vulnerable to upsets due to transfer.

Phifer (1990) found that "certain sociodemographic groups (i.e., women, unmarried persons, those with low levels of education, income, or occupational status,

and the elderly) have been found to be more susceptible than others to adverse health effects after stressful events" (p. 412). Similar results were found in research by Cronkite and Moos (1984), Kessler (1979), Pearlin and Johnson (1977), and Thoits (1982).

Greater Grand Forks Flood

This study considers the impact of relocation from a facility where adjustment had taken place or, at a minimum, was taking place. The informants of this study dealt with relocation several more times. Due to the limited literature addressing this issue, the remainder of this literature review will center on the 1996-97 Greater Grand Forks flood.

As the flood of 1996-97 produced a complete evacuation of all institutional residents to other locations spread throughout North Dakota and Minnesota, it also presented a unique set of circumstances that related to the literature in only an indirect manner. The totality of this displacement was unique in that all residents had to leave not only their institution, but the community as well.

Additionally, as a result of different levels of damage to the facilities, some 40 % of the residents were not able to return to their pre-flood facility/home one year later. This situation contributed to differences in the length of time people were away from their "permanent" residences. Additionally, some of the residents experienced multiple moves, moving in with and away from family homes as the experiences dictated. Many of the residents were moved to temporary places for "holding", while arrangements were made for new institutional placements. School gymnasiums served as such sites until people were relocated and the schools also succumbed to the rising water. None of the

literature encountered represented quite such dramatic moves, yet the issues and questions were similar.

Summary

The literature review was divided into three phases: pre-impact, impact and post-impact--relating to the phases of the reactions of the general public, the community elderly and the institutionalized elderly to natural disasters. During the pre-impact phase most individuals seldom responded to the initial warning, however, the ability of community members to prepare was essential to the outcome or successful management of the disaster. The elderly were even less likely to respond, and when they did, it was a slowed response time that could have been the difference between safety and destruction. Many of the institutionalized elderly had all of the preparations and decisions made for them, resulting in limited ability to have control over the situation.

The impact phase was represented by people searching to find meaning in the event, attempting to regain a sense of control, and an effort to restore self-esteem. The general public, according to the literature, experienced the ramifications of disaster, but began to move toward recovery. Elderly perceived their losses as greater, but many were unwilling to seek help to recover from the losses. The institutionalized elderly often were not able to receive help, even when they sought it.

The post-impact phase, defined as the months and years following a disaster, are times of stress and trauma associated with adapting to a changing environment. Community response and rebuilding are essential to the healing process. While all age groups represented in the literature exhibited an increased level of susceptibility to physical and mental health issues related to stress, the elderly had a longer recovery

period with extended health issues. The institutionalized elderly experienced conditions such as transfer trauma that exacerbated the health concerns leading to a greater susceptibility to illness.

CHAPTER III

METHODOLOGY

The purpose of this study was to investigate the impact of forced relocation of the institutionalized elderly following a natural disaster, a flood. The research focused on ten older adults who were relocated multiple times in an attempt to re-establish support networks and find permanent housing.

This chapter contains a description and rationale of the research methodology. A description of the methods used to select sites and informants are included, as well as an explanation of interview methods.

Qualitative Research

Qualitative research, as defined by Strauss and Corbin (1990), is "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification (p. 17)." The definition, however, simplifies a process that is multifaceted. In fact, qualitative research explores people's lives through their stories and behaviors. It also is used to learn how certain events impact on lives, organizations or society.

"Some areas of study naturally lend themselves more to qualitative types of research, for instance, research that attempts to uncover the nature of persons' experiences (Strauss & Corbin, 1990, p. 19)." The 1997 Flood of Greater Grand Forks was one of those experiences. Each person, no matter the age, had a personal response to

the devastation and a story to tell. Many people had the opportunity to share these experiences with neighbors, family or even strangers. This was not the case for older adults living in long-term care facilities. Seldom were they asked to share their experiences and were, in fact, often told to forget and adjust to the changes in their lives. While these responses were meant to bring comfort, they had the opposite effect. "Lived experiences gather hermeneutic significance as we gather them by giving memory to them (Van Manen, p. 37)." Qualitative research provides the opportunity for older adults to tell their stories and bring some closure to a monumental event. In turn, the research brings an understanding of the event as experienced by a population that is often forgotten. Their stories will be enhanced by the scholarship that has gone before.

A Phenomenological Approach

Qualitative research can be conducted using one of several different forms. I selected one form, phenomenological study, for this research project. According to Marshall and Rossman (1995), "Phenomenology is the study of experiences and the ways in which we put them together to develop a worldview (p. 82)." It provides the greatest opportunity to look at the unique nature of a person's experience and preserve that uniqueness without looking only for the commonalities between experiences.

Three aspects of a phenomenological study were crucial to the outcome of my research. First is the controversy surrounding the researcher's ability to set aside any preconceived ideas or notions regarding the impact of the event on an individual. Creswell (1998) instructs the phenomenological researcher to set aside all prejudgments to insure the integrity of the study. Van Manen (1990), however, acknowledges this is the ideal and unobtainable. While it is important to recognize personal bias and limit its

impact, it is also important to be realistic about your ability to separate your biases from the findings. I, too, believe that a researcher cannot completely separate him/herself from his/her bias. These prejudices can be minimized, however, through careful attention to reporting the findings.

Prior to conducting this study, I had worked in the field of gerontology for eighteen years; five of these years were in a long-term care facility. As a social worker, my role was that of an advocate for the older adults who often could not speak for themselves. When I began this study, I found that my knowledge was both a help and a hindrance to the process. I had learned over the years about the issues confronting older adults and was aware that transfer trauma is a very real concern when relocating the elderly. I was also aware that I was entering into the research with a bias against indiscriminate moves that are often made for the benefit of the facility. In an effort to combat that bias, I first had to be aware of my prejudices and acknowledge them. Second, I used only the information that I gathered from various documents, medical records and interviews to determine the impact on the informants.

The phenomenological approach incorporates a concept known as "epoche" to aid the researcher in dealing with this issue. According to Creswell (1998), epoche is the process in which the researcher brackets his or her preconceived ideas, thus identifying them and providing an understanding of how they may impact the final product. Patton (1990) expands this process to include three basic steps to phenomenological inquiry: epoche, phenomenological reduction, and structural ynthesis. He envisions epoche as the process through which the researcher examines him or herself in order to identify personal biases and removes all traces of personal involvement in the phenomena being

studied. He goes on to identify that the purpose of this self-examination is for the researcher either to eliminate or to gain clarity from his/her own preconceptions, and it is part of the 'ongoing analytic process rather than a single fixed event' (p. 408).

The second step, or phase, in bracketing is phenomenological reduction. In this step the researcher brackets any presuppositions with which he/she approaches the subject of study. Its goal is to enable the researcher to identify the phenomenon in its 'pure form, uncontaminated by extraneous intrusions' (Patton, 1990, p. 408). A review of the bracketed areas allows the researcher to remove the information from the data, leaving only the areas to be used for producing the themes of the research.

The process of phenomenological reduction leads to the final stage, structural synthesis. At this stage the researcher articulates the meaning of the experience and describes its impact on the individual (Patton, 1990).

I used this "epoche" approach to assist me in limiting my own biases. As I read and re-read the transcripts from the interviews, I bracketed the questions and comments that potentially could have reflected my bias. I then reviewed the informant's responses to determine if their comments may have been prejudiced by my questions. Any responses that appeared to have been prejudiced were not used in the final analysis.

Phenomenological research differs from other types of qualitative research in four ways: (a) bracketing, (b) hypothesis, (c) openness to experiences, and (d) the reality of the experience. Bracketing was previously discussed. The researcher does not develop a hypothesis, which would direct the research questions. Rather, the research is formulated based on the information provided by the participants (Creswell, 1998).

I found it helpful, and even necessary, to have a basic idea of where I wanted go when I started the research. Learning about the experiences during the evacuation, and the resulting impact, on the informants was my goal. While I did not begin the process with a hypothesis, it was important to have several questions in mind as I began the interview process. The informants and I needed a similar starting point.

The third characteristic of phenomenological research, openness to experiences, "includes entering the field of perception of participants; seeing how they experience, live, and display the phenomenon; and looking for the meaning of the participants' experiences (Creswell, p. 31)." People experience events in different ways. This was certainly the case in the Greater Grand Forks flood.

I found that the most difficult aspect of hearing the informant's experiences was stopping myself from comparing them to my own or telling them all of my experiences. I realized early on that I needed to have an outlet for my own emotions centered on the flood. By finding a support network for myself, I began hearing their experiences and accepted the differences.

Finally, Creswell (1998) reminds us that it is important to realize that people will experience an event each in his or her own unique way. Even vast differences should be considered true and real for that person. Van Manen (1990) states,

> From a phenomenological point of view, we are less interested in the factual status of particular instances: whether something actually happened, how often it tends to happen, or how the occurrence of an experience is related to the prevalence of other conditions or events (p. 10).

The important reality is what the person perceives it to be and the meaning they attach to the event. Taylor and Bogdan (1998) stated that, "Central to the phenomenological perspective and hence qualitative research is understanding people from their own frames of reference and experiencing reality as they experience it (p. 7)."

Believing that the experiences of the informants were real for them was one of the easiest aspects of the study for me. Whatever the experiences or emotions that the informants were sharing, these were real to them. While they may or may not have experienced everything exactly the way that they said, it was their belief that it was accurate. It was not essential or even helpful to have only the facts. The emotions were equally important. All of the information--factual and emotional--provided the data for interpretation in the study.

Within phenomenological studies there are several methods of data interpretation. The method that I deemed most appropriate for this study was the psychological approach. Creswell (1998) says of this method that it "focuses on the meaning of experiences but has found individual experiences, not group experiences, central (p. 53)." I followed the guidance of Moustakas (1994) in this study when he stated that the responsibility of the researcher is,

> To determine what an experience means for the persons who have had the experience and are able to provide a comprehensive description of it. From the individual descriptions, general or universal meanings are derived, in other words, the essences of structures of the experience (p. 13).

This research study examined the individual experiences of ten informants during and after the 1996-97 Greater Grand Forks flood. Each person's unique experience provided an understanding of what the impact of the event meant to the older adult.

The Phenomenological Question

Unlike other approaches to qualitative research, the phenomenological researcher does not develop a hypothesis that is to be tested. Instead, the question focuses on the participant's experience during a given event. In this case, what was it like for the participant during and following the flood of 1997? This question was the essence of my research. Van Manen (1990) says that it is the opening up, and keeping open, the possibilities of what can be learned. By being open to all possibilities during the data-gathering phase and then going back to the information and reviewing it, I was able to determine how the information answered the question.

Interview Guide

The interview guide is designed to open the interview conversation and keep it going in order to obtain the information needed to provide an understanding of the event as experienced by the participant. The guide in qualitative research is generally based on the developed hypothesis, however, "Pure phenomenological research seeks essentially to describe rather than explain, and to start from a perspective free from hypotheses or preconceptions" (Lester, 1997). This is even taken a step further to include the questions asked in the data gathering interviews.

Phenomenological research does not use a set of specific, directed questions. Patton (1990) states, "No predetermined set of questions is possible under such circumstances, because the evaluator does not know beforehand what is going to happen

and what it will be important to ask questions about (p. 199)." Questions also can provide an opportunity to gather in-depth information on relevant topics. Van Manen (1990) asks, "Is this not the meaning of research: to question something by going back again and again to the things themselves until that which is put to question begins to reveal something of its essential nature (p. 43)?" The essential element of phenomenological research is the ability to not rely solely on predetermined questions, but instead to respond to the information given.

When I entered the interviews, the types of questions I used for gathering data provided direction for the interviews. These were primarily open-ended questions that allowed the informants to expound upon their experiences. The interview guide in this project was helpful when the subjects strayed too far from the intent of the interview or had difficulty recalling their experiences. In general, it provided an avenue to bring them back to the purpose of the interview.

I used eight types of questions to elicit a description of the event and its impact on the participant. These included questions that focused on an introduction, the experience of the evacuation, their opinions or beliefs, perceptions of what occurred, knowledge, background/demographics, and time frame. I decided that each of these types of questions was required to gather a complete understanding of the participant's experience. Patton (1987) assured the researcher that most of the questions flow from the immediate context. He stated, "The strength of the phenomenological approach to interviewing is that it allows the interviewer/evaluator to be highly responsive to individual differences and situational changes" (p. 199). This proved to be the case in

my study. I could consider the differences of each person and the ways in which they responded to a traumatic event.

Purpose of the Study

Natural disasters have played an important role in history, yet there is a limited understanding of their influence on lives. Why do they occur? Can they be controlled? What can be done to protect people and property? What is the impact on those who have experienced a natural disaster? Limited information about the general public's response to a natural disaster turns into a dearth of information relative to the institutionalized elderly. This study investigated the impact of the 1997 Flood of Greater Grand Forks on the elderly living in long-term care facilities (also known as nursing homes). An emphasis was placed on transfer trauma and ways that older adults adapted to changes that were a result of this disaster.

Planning the Study

In determining the viability of the study, I conducted exploratory interviews with administrators from each of the six long-term care facilities in the Greater Grand Forks area. While the facilities varied in size and levels of care, the flood had impacted every facility. It was important to determine the willingness of the administrators to share information and provide access to the selected residents, files and staff. During the exploratory interviews, I learned that one administrator who had control over three facilities was not interested in participating in the study and, in fact, would conduct her own research. Another facility had residents who, due to mental impairment, were not capable of agreeing to participate in the study. Excluding those four facilities I had two

other possible sites. The administrators of those two facilities were interested and expressed a willingness to participate.

These initial interviews aided me in narrowing site selection and served as a conduit to the facilities visited at a later date. While the exploratory interviews were only with the administrators in the communities of Grand Forks and East Grand Forks, I later needed to negotiate entry and work with administrators and staff of several facilities. This became an on-going process since the evacuated residents were moved to facilities across the region, experiencing multiple moves.

Following the initial exploratory investigation, but prior to implementation, Strauss and Corbin (1990) argue that the researcher should develop a defense of the logic of the project. This defense can be provided through some of the following questions: Who is the information for and who will receive the results? What is the information that is needed to complete the project successfully? What are the resources that are needed? When are the results needed? How will the results be used? These questions provided direction for the project and a foundation for further questions as the design process progressed.

I believe that the information gathered from this study is of benefit for policy makers, long-term care administrators and staff, as well as family members. The results were shared with the administrators of the facilities that participated. In addition, it will also be made available to administrators of long-term care facilities throughout the United States and the Administration on Aging, as they are ultimately responsible for policy development.

A national policy had been developed in 1977 by the Administration on Aging that addressed how residents of long-term care facilities were to be evacuated in case of a disaster. It basically stated that residents were to be transported to the local hospital. It did not, however, consider what should be done if the hospital were not able to take these residents, which occurred in this instance. This policy also does not address the impact of the evacuation or subsequent moves on these individuals.

Site Selection

According to Grady and Wallston (1988), "Researchers who are not part of the setting in which they wish to conduct research are 'outsiders' who must become familiar with aspects of the health care setting or organization that can facilitate entry and cooperation (p. 26)." Often the researcher is coming into the facility with limited information, and that can lead to misinformation. I, however, had a working relationship with the administrations of the two facilities and a trust relationship had already been developed, making negotiations easier.

Even with this established relationship, I found it helpful to discuss the benefits of participating in the study with the administrative staff. Discussions centered on: (a) the professional and clinical relevance of the research, (b) ways in which we could collaborate where appropriate, (c) the personal benefits for the staff, (d) my expectations of the facility staff such as sharing names and address of the residents, and (e) their expectations of me such as a limited disruption of services (Grady & Wallston, 1988).

Relating the benefits of my study to administrative staff of long-term care facilities was only part of the process. Because a corporation owned one of the facilities, the administrator served as a facilitator between the corporate office and myself. The

staff of the corporate office, in turn, needed additional information before they gave their approval. While this process provided entry into the original facility, that facility was not operational when I was seeking approval for my research. Administrative offices were set up on-site to track the residents, and so the administrators were able to give me a list of places where their residents had been relocated. Most of the subjects had moved multiple times, therefore, I needed to negotiate entry at each facility. At times, this became a difficult process involving negotiating an entry agreement with the administrator only to have staff turnover and the need to start the process over again. Often the negotiating was with both the formal (i.e., administration) and informal (i.e., activities) systems. In one facility the administrator agreed to allow me entry, but forgot to tell the staff, and so the process began again. The staff had to be included in order to gain their cooperation. In addition, family representatives were contacted and provided information, even though the participants personally chose to participate.

Study participants were drawn from two facilities in the Greater Grand Forks area. The names of the facilities, as well as the names of the participants, have been changed to protect the confidentiality of the participants.

The first long-term care facility, Whispering Pines Nursing Center, was licensed to provide basic care, although residents living there (whose care needs had increased to an intermediate level) were allowed to remain. Affiliated with a religious organization, the facility contained fifty-six units or rooms for single or double occupancy, plus thirty apartments having limited services.

Similar to other facilities, Whispering Pines had an evacuation plan developed in the case of an emergency. However, according to the administrator, staff had been

assured by city representatives that the facility did not appear to be in danger of flooding. The first indication that they needed to implement the evacuation plan was when a resident living on the upper floor looked out of his window and saw water flowing towards the building. He notified the staff and they, in turn, began searching for places to move the residents. Families were notified and those living in the vicinity were asked to pick up the resident. Many of the residents' families, however, had already evacuated or were not able to be reached, so other options had to be pursued. Long-term care facilities located out of the danger area were contacted and some people were moved to those. Still others were placed in a makeshift facility located at the local Air Force base until other arrangements could be made.

Whispering Pines experienced minimal damage, so the facility reopened approximately two months after the evacuation. Prior to residents returning, staff worked hard to make the place look the way that it had before the flood. Residents returned to a clean building with flowers planted on the front lawn. According to the administrator, it was important for the residents to return to a normal life. What was not taken into consideration was the fact that staff and many resident's families were still displaced or cleaning up from the devastation. Residents did not have a complete understanding of what was happening outside of their residence and so had little patience with staff who were struggling with mixed emotions and exhaustion. Nearly one month after the residents had begun to return, the administrator realized that staff and residents needed a clearer understanding of what each had gone through. Residents were transported by bus to the home of a staff member who had extensive damage to her home. Residents were

able to see the damage that had occurred within the community and gained an understanding of what the staff was still experiencing.

Riverview Nursing Center, also with a religious affiliation, is part of a corporation that maintains facilities in several states. This second participating facility had one hundred twenty-nine beds that provided intermediate to skilled level care. In addition, apartments were connected to provide limited services for people who did not require nursing care.

Over the years since its establishment, Riverview had experienced flooding of the area immediately surrounding the facility, though not the facility itself. As a result, when city officials announced the possibility of an evacuation of certain low-lying areas, the administrative staff began to make plans for implementing an evacuation. Following the recommended plan for a long-term care facility evacuation from the Administration on Aging, Riverview staff considered transferring residents to the local hospital if needed. However, by April 18, 1997, the hospital was being evacuated and plans needed to be changed. Several alternatives were considered, but it was essential that the residents be moved out of harm's way. City officials and Riverview administration decided to accept an offer to use a college gymnasium approximately sixty miles from the Grand Forks area. Throughout the day, preparations were being made while everyone hoped they would never be implemented. By late evening, it became apparent that the facility was in danger of flooding; shortly before midnight the National Guard and staff loaded the residents on school buses and left Riverview for the last time.

Residents and staff of Riverview Nursing Center moved together. In a unique evacuation, staff stayed with the residents over the next month as they lived at a college

waiting for placement in facilities across the country. This method provided continuity of care, even in the unfamiliar surroundings.

The makeshift nursing facility was located in a gymnasium. Dividers were placed to provide some privacy, but comforts including beds were not available for everyone for several days. People from the college and the community recognized the stress this was causing and, therefore, gave extra attention to the residents. Volunteers came into the "facility" to fix the women's hair, give facials, or to just visit. These kindnesses made the waiting tolerable and at times even enjoyable.

As open beds were found in other facilities, residents were moved, usually with the assistance of family members. Most wanted to remain in the area in hopes that they would soon be returning to their home, Riverview. Others moved to facilities closer to their children or other family members with no intention of ever returning to the place they had once called home.

It was soon determined that Riverview would not be repaired, that instead a new facility would be built. This would take time. The residents of Riverview settled into a life at other places over the next months and years. Many of the residents made multiple moves while trying to find a permanent home.

Identifying Questions

I began identifying questions for the elderly informants in my study by focusing on the impact the flood had on their lives. I wanted to know what had happened to the institutionalized elderly when they were evacuated from the facility and from the community. In an effort to gain an answer to that question, I needed to develop a series of questions. According to Van Manen (1990), "To do phenomenological research is to

question something phenomenologically and, also, to be addressed by the question of what something is 'really' like (p. 42)."

From past experience with older adults, I knew that I would need to be flexible during the interview and go with the flow of the conversation. I also knew that it would be important for me not to force the interview, but rather listen to what each older person had to say. Once I had the basic questions in mind, I was ready to start gathering the information for the study by interviewing ten people.

Research questions throughout the interview focused on what occurred during the initial move and subsequent moves, how the organization handled each move, and how the subject adapted to each move. Throughout the interviews, I allowed the conversation to flow in the direction most meaningful for the participant.

Subject Selection

Due to the nature of the settings from which participants were selected, they were, to a great extent, pre-selected. While the participants represented individuals living in long-term care facilities, they were not representative of the older adult population in general. It has been estimated that approximately 5 percent of those 65 years of age and older live in long-term care facilities.

There were several ethical issues associated with selecting the participants. First, due to the vulnerable nature of this population, the participants had to have the mental capability to fully comprehend the informed consent. Second, they must not feel that they were required to participate based on the need for care or housing. I assured the informants that this project was separate from the sources of control and power within the facility. Third, the participants were assured that they could withdraw from the

interview at any time. I asked the selected elders to sign a consent form that outlined each of these issues.

Study Size

The participating facilities had tracked their residents throughout each move and provided me with a list of potential participants, along with their new addresses. I contacted these individuals personally, provided information regarding the study, and asked if they would agree to participate.

In selecting the number of participants, I considered several factors including: (a) the number of sites I had chosen, (b) the number of subjects that would provide a good representation, (c) the number of interviews I would be able to complete, (d) the number of hours of interview time that I had available, (e) the health of the participants, and (f) the resources that were available. It is generally understood that, "Phenomenological studies are typically based on samples of 10 or fewer study participants" (Polit, Beck, & Hungler, 2001, p. 248). Creswell (1998) agreed when writing, "Ten subjects in a study represent a reasonable size (p. 122)."

This study had ten participants, seven women and three men. This is representative of the gender make-up of long-term care facilities. According to the Agency for Healthcare Research and Quality (2002), 70 % of people living in nursing homes are female. Everyone that I asked agreed to participate.

The participants in my study ranged from 67 to 93 years of age and had been living in a long-term care facility for two months to twenty-four years. The ten people had experienced the same event, evacuation and relocation due to the flood, yet their experiences were quite different.

Time Frame

I interviewed the participants three times over a period of six months to one year after the flood. The interviews were each thirty to forty-five minutes in length. The short duration was to accommodate their limited physical and emotional stamina.

Interviewing

Van Manen (1990) states that, "A person cannot reflect on lived experience while living through the experience. Thus, phenomenological reflection is not introspective but retrospective (p. 10)." The participants were sharing their memories of what occurred, with some aspects buried in the subconscious. While conducting this qualitative study, I needed to be creative and utilized several techniques to gather data and insure its completeness. These included: direct observation, open-ended questions, written documents, and supportive documents such as videotapes, audiotapes, pictures, etc. Each provided its own unique set of data.

First, it is important to observe the behaviors of the respondents in their new homes. Observations provide information that is not biased or distorted by what a person thinks they should say (Van Manen, 1990). I found that various reactions were observed such as stress, anxiety, joy, and sorrow.

The interview, for me, was the heart of data gathering and provided a picture of the event from each participant's perspective. The information is in places incomplete and may even contain inconsistencies, but it was their interpretation and, as such, true for them. I used the following guidelines for conducting an interview. First, I introduced myself and explained why I was there. When working with a vulnerable population that may have periods of forgetfulness, I found it helpful to do this upon each visit and also to

review what was discussed in the last interview. Second, I began by asking each informant what he or she wanted to talk about during that interview. This, at times, meant discussing their health or listening to family stories rather than discussing the evacuation. Based on the information that the informants had shared in previous discussions, I realized that many of these individuals had had little opportunity to share their thoughts or feelings. I found that I could not rush into the questions, but rather gave the informants time to feel comfortable with the interview as well as with me. Third, when I asked interview questions I tried to phrase the questions in a clear, concise way. If the informant appeared not to understand the question, I rephrased it. Fourth, questions were open-ended whenever possible. This allowed the interviewee to share more of their thoughts. When they went off on tangents, I either allowed them to share other information that ultimately became important or I respectfully drew them back to the topic. Fifth, I tried to organize the interview so that questions flowed from one topic to another. This helped the interviewee understand the purpose of the interview questions. Sixth, while it was helpful to have an interview guide, questions important to the research, it was equally important to pay close attention to the responses in all areas of discussion. All of the information that was shared by the informants provided a better understanding of how they were affected by events in his/her life. Seventh, when the interviewee was having difficulty responding, I used other techniques that helped the interviewee formulate their responses. This included looking at photos of the flood and questioning what it meant to them. This was designed to trigger the informant's thoughts or memories. Eighth, I selected the questions that were used in the interview carefully. It was important not to tire the informant and so the interview needed to be short in

duration. Ninth, I always thanked the interviewee at the end of the interview and, as needed, set a time for the next interview.

Supplemental information provided a clarification and an expanded perspective of the evacuation. Staff from one of the long-term care facilities video recorded the preparation and provided a post-analysis of the evacuation. In this video there were discussions regarding the decision making process, what information the decisions were based on, and so on.

Other supplemental information that I used in this project included a review of the medical charts of each participant and personal items such as photos and letters provided by the participant. These additional records provided an excellent foundation for the research.

Prior to the interview, I considered the various types of recording devices that I would use. There were several options from which to chose, including: recording with audiotape, videotape, written notes, and relying on memory. There are benefits and limitations to each method, but I chose to use audiotapes so that I could hear the nuances of the conversation. I asked each participant for permission to tape the interviews. Limited written documentation was also used to provide an alternate source. Later, I transcribed the audiotapes.

Data Analysis

Data analysis is the breaking down of information into manageable parts or as defined by Ely, Vinz, Downing and Anzul (1997), "interpretation means drawing meanings from the analyzed data and attempting to see these in some larger context (p. 160)." While it is designed to simplify the data, it is one of the hardest tasks of the study.

They go on to say that, "In analysis for qualitative research, we try to discern the smallest elements into which something can be reduced and still retain meaning if lifted out of immediate context, and then to discover relationships between these elements (p. 161)."

Kvale (1996) identified six steps in the analysis process. These are: subject description; subjects identifying a new relationship; the researcher defining, rephrasing and reintroducing what has been said to clarify meaning; transcribing information; re-interviews; and action. Each of these steps helps to clarify the meaning of the data, but these steps should not be viewed as separate tasks. Rather, they are part of the ongoing process of qualitative research. While many researchers in the past believed that data collection must be completed prior to any attempt at analysis, recent changes tell us that planning the analysis should begin when the research plan is first formulated.

According to Ely, Vinz, Downing, and Anzul (1997), "Research proceeds most productively when analysis and data collection run concurrently for most of the time expended on the project, and the final stage of analysis, after data collection has ceased, becomes a period for bringing final order to previously developed ideas (p. 164)." Throughout the data collection process I theorized about the information as it was being gathered and attempted to make sense of what I was learning. As additional information was gathered and more theories developed, I tried to find gaps in the data or questions yet to be answered. This process allowed me to continue building on the data while I was analyzing the information that had already been gathered.

As previously stated, a phenomenological study requires a variation in the method of analysis. This variation, however, has come under debate. There is a question as to

whether in phenomenological research a reduction can be performed. According to Miles and Huberman (1994),

> Phenomenologists often work with interview transcripts, but they are careful, often dubious, about condensing this material. They do not, for example, use coding, but assume that through continued reading of the source material and through vigilance over one's presuppositions, one can reach the 'Lebenswelt' of the informant, capturing the essence of an account (p. 8).

While Van Manen's (1990) philosophy is that "Phenomenological data analysis proceeds through the methodology of reduction, the analysis of specific statements and themes, and a search for all possible meanings (p. 52)." I chose the latter philosophy and determined themes from the data gathered. Van Manen goes on to say that "Theme gives control and order to our research and writing," and that "Phenomenological themes may be understood as the structures of experience (p. 79)."

Themes were found by following a similar process to those used in other methods of qualitative research. Because so much information was gathered, I needed to narrow the data into a manageable form. First, I transcribed the data verbatim from the audiotapes into a word processing system. The transcriptions were then printed into hard copy to be read and reread in order to learn the nuances of the interview data.

In addition, I transferred the interviews into a qualitative computer analysis program, QSR Nudist. The computer program integrated the interviews, documents and information pertaining to observations. The intent was that the software would aid me in determining the themes concealed within the data. While this is an invaluable service, I

found that I needed to re-read the transcripts multiple times to gain a familiarity with the data. I only used the information produced from the software to cross-reference my findings.

According to Taylor and Bogdan (1998), "Data analysis is a dynamic and creative process. Throughout analysis, researchers attempt to gain a deeper understanding of what they have studied and to continually refine their interpretations (p. 141)." The process of reviewing the information, looking for similarities in data, and giving these similarities a new name, symbol or number is known as coding. The amount of information that is linked to a particular code will vary from researcher to researcher or even topic to topic. Some people will transform a phrase, sentence, or even a paragraph into one code. It is important that the code represent the essence of the thought. The researcher goes through all available information, both direct statements and observations, to find similarities.

As I read through the transcripts, I assigned a representative term to all similar thoughts stated by the informants. Figure 1 identified the codes used in this study.

The new code names, however, were cumbersome, and so they were further broken down into categories or themes that represented the ideas of multiple codes. As I recognized themes, the codes were added to, taken away, expanded and redefined. Taylor and Bogdan (1998) state that, "The cardinal rule of coding in qualitative analysis is to make the codes fit the data and not vice versa (p. 152)." If codes appear to fit into more than one category they should be placed in all that are relevant.

It can be difficult to recognize themes in the data. In this study, however, the themes became very apparent early on. I did not, however, want to bypass a theme and

Advocating for An Advocate
- Concern for family
- Concern for friends
- Concern for the community
- Concern for strangers
- Concern for self
- Questioning resources

Loss of Community
- Memories of the community
- Social supports
- Family in the community
- Connection to the community
- Connection to the facility
- Supports in the facility
- Reactions to loss

Diminishing Locus of Control
- Internal controls
- External controls
- Determining events
- Deprivation
- Powerlessness

Negative Correlation Between Multiple Moves and Health
- Declining health
- Improved health
- Environmental changes
- Perceptions of moves
- Perceptions of self
- Meaning of home
- Coping mechanisms

Figure 1. Coding for Each Theme.

so I examined the data in as many ways as possible. Taylor and Bogdan (1998) offer suggestions to aid in this process. These are: (a) read and reread the data for a thorough understanding of the data available; (b) keep track of hunches, interpretations, and ideas for later use; (c) look for emerging themes, even tentative themes; (d) construct typologies, or classification schemes, that make conceptual links between topics that

seem different; (e) develop concepts and theoretical propositions by looking for words or phrases that capture a meaning, compare statements, and look for underlying similarities; (f) read the literature of additional ideas; (g) develop charts, diagrams, and figures that highlight patterns in the data; or (h) write memos that attempt to summarize the major finings. I found it helpful to utilize all of these suggestions. As I reviewed the themes, I began to refine and synthesize ideas. This process allowed for a higher level of conceptualization. Through this process I gained an assurance that the themes that I had selected did fit with the data.

Four themes, drawn from the data gathered, were identified. These were:

- Advocating for an Advocate,
- Loss of Community,
- Shifting Locus of Control, and
- Negative Correlation with Multiple Forced Moves.

Verifying

The next challenge was to determine if the themes represented the true meaning of the data. I considering three areas: generalizability, reliability, and validity. Generalizability is defined by Brewer and Hunter (1989) as "how far and with what degree of accuracy can the empirical findings pertinent to the theory be generalized beyond the particular situations that have been investigated (p 43)." Can the information from this research be used as a guide for other research projects that are similar in nature? Even though each experience in phenomenological research is unique to the individual, the frequency with which the experiences were similar demonstrated that these experiences could be found in others following a natural disaster.

Reliability of the findings was determined by rereading all of the interviews with a critical eye. Were the themes an accurate portrayal of the data? I believe that the themes are a representation of the data provided (see Figure 2).

Advocating for an Advocate

Assertion # 1: Concern for others pervades throughout life.
- Sub-assertion # 1a: Older adults are aware of current issues.
- Sub-assertion # 1b: Interest in the experiences of strangers continues throughout life.
- Sub-assertion # 1c: Concern for family and friends continues throughout life.

Assertion # 2: Older adults want an advocate.

Loss of Community

Assertion # 3: Older adults want to maintain a connection to the community.
Assertion # 4: The long-term care facility becomes a vital part of the support network for older adults.

Diminishing Locus of Control

Negative Correlation Between Multiple Moves and Health

Assertion # 5: Inappropriate time to adjust and limited support may create relocation problems for older adults.
Assertion # 6: Past methods of coping may be ineffective in extreme traumatic events.
Assertion # 7: Relocation multiple times impacts both adjustment and health.

Figure 2. Themes, Assertions, and Sub-Assertions that Emerged Based on the Codes.

Finally, did the research answer the question that was being asked and were the findings true and accurate? According to Maxwell (1992), "Validity, in a broad sense, pertains to this relationship between an account and something outside of that account, whether this something is construed as objective reality, the constructions of actors, or a variety of other possible interpretations (p. 283)." Maxwell goes on to describe various types of validity. These include: descriptive, accuracy in the description of what was

seen or heard; interpretive, accuracy in the interpretation of behaviors, events, and so on; and theoretical, validity of a theory that is the basis of the study. Since phenomenological research allows for variations in data, it represents the individual's interpretation of the event; the data is valid to each person's perspective. I asked the informants to review my initial finding to determine if the findings were a fair and accurate interpretation of the information that they had provided. Each informant said that it was.

Other authors have identified two types of validity, internal and external. According to Creswell (1998), "internal validity can be demonstrated through data triangulation, using different sources for information gathering, feedback and the involvement of informants or participants in all phases of research" (p. 158). This research study utilized data triangulation to determine validity. In addition to the interviews of the participants, staff and a family member were interviewed when possible. This information was then triangulated with a review of medical records and other written documentation.

External validity, as defined by Marshall and Rossman (1989), is the "generalization of a qualitative study to other populations, settings, and treatment arrangements" (p. 146). I believe that if data were gathered at other long-term care facilities following an evacuation and multiple relocations the results would be similar.

Summary

The methodology used to gather and analyze the data provided a wealth of information regarding the impact of relocation following a natural disaster. The findings

of this study are presented in Chapter IV. Literature that suggests a similarity to my findings is also discussed.

CHAPTER IV

PRESENTATION OF FINDINGS

In this chapter, the findings are presented and discussed based upon selected themes. These findings were derived from data triangulation: interviews, observations and supplemental resources. Interviews were conducted with ten people who had been living in local long-term care facilities during the 1996-97 Greater Grand Forks flood. These elderly informants shared their experiences of evacuation and post-flood recovery. Interviews designed to obtain supportive data were also conducted with staff from each facility in which the informants lived as well as with family members. Observation of behaviors led to additional questions that, in turn, helped to clarify pieces of information. Supplemental resources included medical charts and a video produced by one of the long-term care facilities. This video provided first-hand accounts of the evacuation, from early discussions through the first week following the evacuation.

This chapter begins with an overview of the flood's impact followed by portraits of the informants. Next, each of the four themes is presented and each theme gives rise to assertions and sub-assertions that provide clarification of the information related by the informants. The assertions and sub-assertions were separate, but overlapping, ideas within each theme. I will substantiate each theme in this chapter with a discussion of the literature that relates to the findings. Information is shared to portray the experiences of the informants in a personal way, while guarding the integrity of the study. The literature

presented in the chapter is provided to suggest ways in which the informants reacted in ways that were similar to other studies or in ways that contradicted the literature.

Overview of the Impact

A disaster consists of four elements: a precipitating event, perception of the event, response to the event, and resolution (Parad, Resnik, Ruben, Zusman, & Ruben, 1975). Each of these elements is addressed in this study, but the emphasis is placed on the perception and response to the event. The impact of the disaster is shown in terms of the contributions the institutionalized elderly made to flood recovery and to a greater extent the losses of resources that the informants experienced as a result of the disaster.

Resource loss is a critical element in defining the impact of a natural disaster. According to Freedy et al. (1992), loss of resources can be divided into four categories:

> (a) object resources--which are possessions with either functional or status value such as, car, home, and household items; (b) condition resources--which include a variety of social roles such as, employment, marriage, and membership in organizations; (c) person characteristic resources--which are self and world views such as a sense of optimism, a sense of meaning/purpose, and feeling independent; and (d) energy resources--such as time, money, and information, which are valued as tools in the acquisition of other resources (p. 444).

The institutionalized elderly have in the past experienced role transitions that have led to the loss of object, condition and even energy resources. These losses leave the institutionalized elderly with only one primary resource, that being personal characteristics. My study focused on ways in which the Greater Grand Forks flood of

1996-97 eroded even this last resource. I will address ways that society can empower older adults in an effort to minimize the destructive nature of the erosion in Chapter V.

Portraits

Portraits of the ten informants provide insight into their lives prior to and following the evacuation. The names of the informants and facilities have been changed to protect confidentiality. Other information that could lead to identification has also been changed, but care has been taken to insure that the changes do not alter the relevant data gathered in this study.

Mrs. V, a ninety-one-year old widow, had resided in a long-term care facility for twenty-four years. She experienced limited mobility, primarily relying on a wheelchair, but was mentally alert. She owned a farm, from which she collected rent, located ten miles north of Grand Forks. The only family member living in the area was a granddaughter, a student at the local university. Mrs. V had three adult children living out of state. Primary emotional support came from a daughter in Minneapolis, Minnesota. Prior to the flood, a major portion of support came from facility staff and other residents. Approximately three weeks after the flood she moved to a long-term care facility nearer her daughter. She adjusted to the new environment, although she changed rooms twice within the same facility and did not return to the Grand Forks area. Interviews were conducted over a two-month period of time at the new facility.

Mr. J, an eighty-eight year old widower, had lived in a facility for three years. He had farmed near Thompson, North Dakota for more than fifty years before moving to an apartment in Grand Forks in 1990. Following a stroke in 1995, and subsequent paralysis on the left side of his body, his family persuaded him to move into a long-term care

facility. When he was evacuated, he was moved to the local Air Force base for two days, then moved back to his home farm to live with his son and his son's family. After staying with his son for two weeks, he found the noise level in the home difficult to deal with and was concerned that he was imposing. When the long-term care facility reopened, he returned. Th[illegible]ee interviews, one per week, were conducted at the facility four months after his return.

Mrs. W, an eighty-six year old woman, moved into the facility approximately two weeks prior to evacuation. Her husband of sixty-four years had died nine months earlier. She had lived alone, with family visiting frequently, until concern about possible flooding had led her to the change of residence. After the evacuation, she stayed with a daughter and her family living out of state. She had planned to return to her home once the threat of flooding and the harsh winter weather had ended. However, following the flood she learned that her home had sustained substantial damages and would not be repaired. Although she was able to return to the facility in which she lived prior to the evacuation, she found it extremely difficult to adjust to permanently living in a long-term care facility. Interviews were conducted every two weeks over a six-week period.

Diabetes, near blindness and heart disease had lead to Mr. R's relocation to a long-term care facility. An eighty-three year old gentleman, he had lived his entire life in Grand Forks other than the few years he had spent in military service. Although he seldom discussed his experiences in the war, he was proud of a commendation he had received for valor. He had worked as a civil servant during the remainder of his life, retiring at age 65. Since then he had lived in his home with his wife, until health problems required an increased level of care. Seven months prior to the flood he had

entered the facility. Evacuation of his new home lead to three more moves, each getting him closer to Grand Forks, his wife and his family. He was never able to return to the community, but he did move to a facility close enough for his family to visit him once a week. Three interviews were conducted over a five-month period at two different facilities.

Miss A, seventy-seven years old, had experienced moving to unfamiliar places from a very young age. She came to the United States from Norway with her family at age 16. Since arriving she had worked in various jobs, including retail and housekeeping. Even though she never married, she maintained strong family ties with siblings, nieces and nephews. When cancer interfered with her ability to care for herself, she moved to a long-term care facility, eighteen months before the flood. Following the initial evacuation move, she relocated twice to facilities out of the area. Interviews were conducted at the latter facility over a four-month period of time. Thirteen months after leaving she returned to Grand Forks, although not to the facility where she had lived prior to the flood.

Mrs. K, the youngest informant at age 67, had lived in the facility for nearly six months. Complications resulting from multiple sclerosis had left her unable to care for herself. Since divorcing her husband, she had lived alone utilizing home health services. Considering herself a homemaker, it was important for her to remain close to her children. Four of her five children lived in the area and were her primary support system. When the evacuation moved her from the immediate area, she asked her children to help her return. After four moves, two of which were within one facility, she finally returned

to the city to a new facility. Interviews were conducted in two of the facilities over six months.

For six years, Mrs. H had called a long-term care facility home. Widowed for nine years she finally found that she could no longer care for herself and so she had made the decision to move to a "nursing home". In the spring of 1997, at age 86, she had adapted to the changes in her life and was enjoying the many activities offered at the facility. As the mother of three children, all of whom lived out of the area, she had also developed a strong relationship with several staff members. She viewed the facility as her home, but that changed over the course of a few hours. Following the evacuation she was moved three times, with little or no input from her. She was never able to return to her "home". Interviews were conducted in two facilities over six months.

Mr. D, 81, was a farmer from a community north of the Grand Forks area. A self-described independent man, he had lived in a facility for over four years, two of which were in the place from which he was evacuated. He had found it difficult to adjust to having someone provide his care, and voiced his resentment of the situation in which he found himself. He wanted to return to his farm and felt that he could manage to care for himself. In total, he moved five times including the evacuation, two of which were within one facility. He did not appear to adjust to any of the facilities. Interviews were conducted in two facilities over five months.

Mrs. G had just turned 70 when she moved into the facility. She was very sick at the time and had no input into where she would live. This forced move caused a conflict with her two daughters, but in time she did realize that they had little choice either. Three years later, she was forced once again to move and again had no real input into

where she would move. After the third move she said that she no longer cared where she lived. Interviews were conducted in three facilities over six months.

A former rural schoolteacher, Mrs. B was a dignified stately woman of 79 years. She had spent her life teaching children, grades one through six, but never had any children of her own. When she moved to the facility two years earlier, she had made a conscious decision to "make the best of it". Just as in the past she helped other residents and staff in every way that she could. She particularly enjoyed the chapel services and programs that community members provided. In addition to the evacuation, she moved three times, finally moving to another state to be near a niece. Interviews were conducted in two facilities over four months.

The informants introduced above shared their lives and experiences with me. Their responses, showing vulnerability and strength, were given in the hope that what I learned from them could be used to enhance the lives of other older adults. The themes that came from the responses of the informants are not in any particular order. Each plays an important role in the adjustment or adaptation to relocation in a long-term care facility.

Theme A: Advocating for an Advocate

Society tends to believe many myths about older adults. Two of these are addressed in this research theme. First is the belief that older adults lose interest in current events or issues that affect others. Related to this is the second myth that even if they are aware of issues, the older adult himself is concerned about getting as much as possible at the expense of other populations. These myths may be more of a reflection of the behaviors of the general public.

Human nature often dictates that we voice concern for others before we express our own concerns. The elderly are no different. The informants, to a person, expressed their concern for others, particularly families with young children. Even though many of them had lost basically everything that they owned they still were concerned about the losses of these families. In fact, the informants advocated for the needs of the younger families.

In addition, it is interesting to note that while the literature clearly articulates the amount of resources necessary to provide services to older adults, there is a dearth of information regarding the contributions that the elderly make to their families and to society in general. This was particularly evident when reviewing the literature regarding the supports offered by the institutionalized elderly.

Assertion # 1: Concern for Others Pervades Throughout Life

It is generally understood that a person's identity does not change dramatically as we age unless cognitive changes are introduced. Brown (1996) identifies two important types of identity issues related to aging: the extent to which established life-long identities are maintained into old age and the extent to which individuals take on new age-related identities. If we were interested in other people when we were younger, we will maintain that interest and concern as we age. Likewise, if we never cared about helping others as young adults we probably will not become motivated by concern for others as we age. The concern may, in fact, be enhanced as the older adult recognizes the importance of their role in passing the torch to the next generation.

Sub-Assertion # 1a: Older Adults are Aware of Current Issues

Society views the older, institutionalized adult as preparing for death and separating from society. This accepted idea is the basis of the disengagement theory (Cumming & Henry, 1961). It is based on three basic propositions: (a) there is a process of mutual withdrawal of aging individuals and society from each other that is natural; (b) this process of withdrawal is inevitable; and (c) it is also necessary for "successful" aging. While this theory has gained acceptance, I found within my study that the elderly were not withdrawing as much from society as society was withdrawing from them. This was related to the lesser-known activity theory (Lemon, Bengston, & Peterson, 1972). This theory argues that decreases in social contact are imposed upon the elderly by society and are detrimental to the well being of the elderly. Israel (1971) found that when the older adult does separate from society it is because others, and not the elders themselves, have chosen and shaped the environment, giving them little opportunity to participate in their own decision making.

All of the informants for this study were interested in what was occurring, had not withdrawn from society, and yet many were given little information. Some family members stated that they wanted to spare the older adult any unnecessary worries. Still others said that the elder probably wouldn't understand what was happening anyway. This, however, often had the reverse effect in that the older adult was only getting limited pieces of information that then required them to interpret and image what might be occurring.

> Mr. J: That was a bad winter. I heard people talking about a flood...we been through that before. They just didn't get ready right ...for flooding.

> Back when, we knew how to get ready…to fight. They didn't try to save some a those houses by the river.

Like most people in the midst of a traumatic event, the elderly wanted to know what was happening to their communities.

> Mrs. W: I asked my daughter to bring in the newspapers so I could follow the flood. TV don't tell you much.

The institutionalized elderly spent many hours pre and post flood watching television, listening to the radio and reading newspapers. Mr. R describes his reaction.

> Mr. R: We couldn't leave. I just listened cause I didn't know what else to do, you know. Before I could've helped (pause)...sandbagged. You know. Now, now, oh I don't know, I just sit by. It's hard. I can't do nothing. It was bad – you know, fire, floods. All that water and they couldn't do nothing about the fire. We always had to worry about floods, but not like that. It (pause)…I don't know.
> Interviewer: So you listened to it on the radio?
> Mr. R: Yea and on the TV. I can't see much you know, but I can still hear just fine and it was hard hearing about all those homes going. I just couldn't do nothing.

The frustration at his own lack of ability to contribute to the flood fight was evident in Mr. R's comments. Television, radio and other forms of media provided the connection with all that was occurring. This was similar to the experiences of Mrs. B.

> Mrs. B: Oh it was just terrible. All those families (pause) and the children. I don't know what's going to happen to them. It was so sad to watch it. Water washing away the homes. Did you know I used to live on Second Street? Now that's gone. The whole thing. The house was old anyway, but somebody still lived there. I couldn't stop watching. That happen to you?
> Interviewer: Yes.
> Mrs. B: Every day it just seemed to get worse. I thought it would never end. I was glad I could stay close so I could see it all.
> Interviewer: Did you watch a lot of TV?
> Mrs. B: Yes, all day. I had to watch and . . . (she laughs) and I didn't have much else to do.

The concern for others was evident, but another issue was also exhibited in these responses. Activities in long-term care facilities are scheduled at intervals that leave large spans of time with little to do. Because of the inability to leave or become involved in other areas, it became the primary activity. Some individuals expressed concern that spending that much time focused on a traumatic event became overwhelming.

Sub-Assertion # 1b: Interest in the Experiences of Strangers Continues Throughout Life

Community includes not only those with whom we have a close relationship, but also strangers. If they are part of our community there appears to be concern for them. By exhibiting concern for strangers within the community we demonstrate our commitment to the community as a whole. Brown (1996) reported that we search to restore personal relationships in our daily experiences by interacting with many people. Applying that idea to this study, we can assume that because we have shared this common experience with others in the community, it can bring meaning to our lives. Brown (1996) went on to say that the quest-for-community aids us in self-expression and self-determination. When others have shared a similar experience and are feeling emotions and exhibiting behaviors that we also have, it can validate our own feelings and behaviors. This is also true for the institutionalized elderly. They have a bond with strangers who were also evacuated. These strangers can understand and empathize with the older adults' emotions and, in turn, the older adult can understand and relate to the family that lost their home or their neighborhood.

> Mrs. H: My daughter called that day before we left. She told me they were moving people out. She worries about me (she laughs) … but I told her not to worry. That was good because those people needed the most help. I was O.K.

Similar sentiments were expressed by Mrs. K when she stated:

> I worry about all those families with no place to go. The kids couldn't go to school. They left their homes. It's really bad for those people.

Concern for strangers was exhibited in many different ways following the flood. People gave money, supplies and, more importantly, their time to help strangers in need. While the institutionalized elderly had few resources that they could share with others, they were empathic and cared.

> Mrs. V: Then I heard on TV the other day that they're condemning 650 houses. And I thought it can't be, I must be hearing something that's wrong. John and Jean were here last night, and John said no that's right. One hundred fifty they're tearing down completely and throwing away and some that they are taking apart and moving.
> Interviewer: It's a different city.
> Mrs. V: What did they do with that block?
> Interviewer: The block that Riverview was on?
> Mrs. V: No, no. Downtown. All of those buildings that burnt. Are they all gone?

Concern was even more evident when Miss A. expressed her concern for the families of the Greater Grand Forks area.

> Miss A: June came to visit the other day. She told me there are still families living in trailers. How can that be?
> Interviewer: Ya, I think there are a few families still in the mobile homes, but most have found new places to live.
> Miss A: So many people lost everything. How can they afford to start over? Are they getting help?
> Interviewer: Yes, several agencies are helping people.
> Miss A: That's good. I wish I could do more. I gave a little money to my church, but I don't imagine it helped much.

Sub-Assertion # 1c: Concern for Family and Friends Continues Throughout Life

Conversations with older adults often center on the accomplishments of family members. Pride is evident as well as concern about the issues they face. They want to remain an integral part of the family unit, not just a person requiring care. According to

Brown (1996), relationships with family members are generally viewed by the elderly as more permanent and ultimately more reliable in times of crisis and for needed fulfillment than are friendships. They also view their commitment to family as greater, particularly when there has been an on-going strong relationship. It is viewed as mutual support.

The six main forms of support (i.e., confiding, reassuring, providing sick care, expressing respect or affection, and talking about health or about problems) are both provided and received by people in every age group (Rowe & Kahn, 1998). While the amount of support that people report providing to others does go down with age, the change is really very little over a lifetime. It is far less than most people imagine. According to the MacArthur Study on Successful Aging, as reported in Rowe and Kahn (1998), the giving of emotional and other support is more important to older adults than receiving it. It can even be a therapeutic release by distracting a person from pain or major emotional losses. The literature is suggestive of similarities to my study.

Each informant expressed concern for the family members who had been impacted by the flood. Due to the totality of the event, several informants had many family members displaced by the flood.

> Interviewer: Do you have family in the area?
> Mr. D: Both my sons farm near Warren. They sure got hit again.
> Interviewer: Again?
> Mr. D: Ya, every spring they get flooded. Not like this, but they get hit. I don't know how much longer they can keep going. Those Goddamn guys in Washington cut the programs (shakes his head and sighs) and crops fail. Every spring they're flooded or a summer drought. I use to go out and help get the crops in. I can't ride the tractor no more. Can't see you know. You get pretty worthless when you get older. I want to help, but I can't so much anymore.

The mutual support among family members was an important aspect in dealing with the flood. The families, who were able to do so, moved the evacuated older person into their homes until a facility opened. Those who could not offer a home offered emotional support. The older adult in turn, offered empathy and support for the family.

> Interviewer: (Seeing several crocheted chickens and bunnies) Are you getting ready for Easter?
> Mrs. G: The chickies and the rabbits are going to go to my grandchildren. They lost so many toys in the flood so I wanted to make them something (she looks down at the crocheting) ... for their Easter baskets.
> Interviewer: I'm sure they are going to love them.
> Mrs. G: I have a granddaughter ... she's four years old and she goes to school. For two years already. She's a brilliant kid. She lost the dolly that I made for her. Her mom had to throw it away. She was afraid to let her play with it once it got wet. Anyway, her mom is expecting a baby.
> Interviewer: You're going to be a grandma again? Congratulations.
> Mrs. G: She doesn't know that they're expecting a baby. It's going to be quite a shock to her when she finds out. So anyway, I got the bright idea of taking and making a pajama and a cap just like a newborn baby. No pins, I put ties on so that she can tie it. And then I made a suit for him to wear afterwards. No, I don't know how she's going to take this. But when the baby arrives, she's going to get her new baby at the same time.
> Interviewer: That's a wonderful idea.

Older adults want to remain an integral part of society and especially of their families' lives. They continue to worry about their children and value the supports they give and receive.

> Mrs. V: They live in Grand Forks, but they go to Texas in the winter. And so last year they were just ready to go to Texas, and two days before they left, she got sick and they did open heart surgery. So she was very ill. So they were here during the flood. I didn't know where they went and I called everybody. They lived in their mobile home on the road, you know. I gave them the home place to live. So both of them now, hopefully, you know, will get along for a while.

While family is the primary support network for older adults, they may not always be available. In the United States, many elders have become isolated from their

families--because of migration away from harsh weather, children relocating for employment purposes, or they have simply survived their family members and network of friends. Friends are the next important link in the support network.

Friends are important to the older adult and help them find meaning in their daily lives. While friends are from many generations, the elderly tend to prefer friends of their age cohort. Friendships among their cohorts with whom they share common values, interests, and experiences would understandably provide them with the greatest satisfaction in search for life enhancement. Jerrome (1992) points out that these friendships are

> vital to older people because that particular kind of intimacy acts as a buffer against the age-related losses that they have in common, and because the very existence of friends is in itself a measure of social success and a sign to them of continuing vitality and social involvement (p. 160).

Friendships appeared to be based on a mutual support system, rather than the younger generation providing care for the older generation. Mrs. W articulated the strength that can be derived from a mutually supportive friendship.

> Mrs. W: My friend Mary had floodwater to the main floor. She had to move in with her kids. That's no good you know ... living with your kids. They got their own lives and so busy. No time for us old people. (She laughs.)
> Interviewer: Can her home be repaired?
> Mrs. W: I don't know. I sure hope so. She's had so many troubles. We've been friends since our kids were little. Oh those were the days. We had no money, but we sure had fun. Going to dances and picnics. Me and my husband and her and her husband did everything together.
> Interviewer: And you're still friends. That's great.

Mrs. W: Now we help each other. I keep her up-to-date on the soap operas (she giggles) and she brings me my yarn.

Mrs. K also spoke about the mutual support she experienced with a friend.

Interviewer: You had mentioned that since moving here you have no one to talk with. Can you tell me more about that?
Mrs. K: I just don't have anything in common with these people. Most of them don't have their minds anymore. Poor things. But it's hard to talk.
Interviewer: Are your friends able to visit?
Mrs. K: They do now. They couldn't when I lived in those other places. They do now. Marie visits at least once a week and Judy comes whenever she can.
Interviewer: They sound like good friends.
Mrs. K: Oh they are. They even take me out for lunch once in a while. We take turns buying. It's good to get out of here some.

In general, women reported that they were very distressed about life crises that affected members of their social network (Kessler & McLeod, 1984). Social networks included family, friends and neighbors. Kessler and McLeod (1984) also found that men seldom mentioned events of this type. This was supported by research conducted by Miller (1976) who found that women were more likely than men to be attuned to the needs of others and to feel responsible for meeting those needs. Women were also more willing to provide mutual support.

Mutual support includes receiving support. The need for support often occurs as we age and in many different ways.

Assertion # 2: Older Adults want an Advocate

Older adults, particularly those living in long-term care facilities, are often vulnerable and not able to speak for themselves. Even the elderly who can voice their needs are sometimes unwilling or unable to do so. For many they have been socialized to expect little, to settle for the few services that are offered.

Seeking aid can be difficult for anyone. Where do you go? Whom do you contact? And, What are you entitled to obtain? According to the Administration on Aging (1997), older adults may need to be educated about available services and how to go about applying for them. Education may also assist older adults in overcoming the stigma attached to using mental health services.

The institutionalized elderly need someone to advocate for the services to which they are entitled. Family, when available and interested, can fill this void. However, the Administration on Aging (1977) found that the increased family stress when providing or seeking services led to an increase in abuse of the elderly.

Even if given this education, the older adult, particularly the institutionalized, may find they are ineligible to receive services. The central issue with formal aid is its adequacy in helping victims recoup their losses. Bolin (1989) stated that the long-term psychosocial impacts of natural disaster are affected not only by the actual event and victim characteristics, but by the patterns of aid distribution and the differential access to that aid. Other studies, (Bolin & Klenow, 1982-83; Kilijanek & Drabek, 1979), have found that while the "elderly may have greater needs, they also suffer a 'pattern of neglect' in that they receive proportionately less aid than younger victims" (p. 284). In addition, according to the Administration on Aging (1977) lower income and retired aged were less likely to ask for financial aid than were younger, more affluent individuals.

There is inconsistent data concerning the efforts to seek help by the elderly. Some researchers believe that the older adults will seek more aid, but be unsuccessful due to the requirements. This is demonstrated in several studies (Bolin & Klenow, 1982-83; Kilijanek & Drabek, 1979) that found that elderly attach more meaning to losses of

possessions than do middle-aged victims and attach more emotional importance to the loss of mementos, something that money can't replace. Bolin and Klenow (1982-83) reported that older adults did seek dollars to replace those items lost but were not able to qualify for certain programs such as the Small Business Administration (SBA) low interest loans. This situation resulted because of the difficulties some older adults had with filling out forms for the federal aid. Other researchers believe that older persons are less able to see themselves in "the activity of getting aid" and instead saw themselves as unable to start over again and so there was little reason to seek aid (Baker & Chapman, 1962).

Friedsam (1962) hypothesized that the elderly, unlike younger disaster victims who understate their losses, were "considerably more likely" to give a high deprivation response to questions concerning property loss and the amount of help received (the elderly perceive their losses as greater than those of their neighbors). This does not coincide with my findings. Instead, my study more closely correlated with the work of Huerta and Horton (1978) whose research surrounding the collapse of the Grand Teton Dam in 1976. They found that older persons felt that the flood less adversely affected them than younger persons even when the younger person had losses that were similar in magnitude.

Most research does agree, however, that the loss of belongings will affect the definition of self for older adults. Their possessions are the link to their past and to future generations. When certain possessions are lost that link is broken.

The informants in this study, like those of other studies, also needed someone to come to their aid. In most instances it was a family member who served in this role.

> Mr. R: Ya, when my son comes to visit I ask him to get me back to Grand Forks, but he says there ain't no rooms open. He's been checking, but it's full up right now. I think he's trying.

The assistance needed by the elderly went beyond helping them find a place to live. Mrs. V discussed her experiences when attempting to file a claim with the Federal Emergency Management Agency (FEMA) on the items that she lost in the flood.

> Mrs. V: Just about everything was lost. They cleaned it up before I got there so I couldn't try and save anything. A guy came from Minneapolis and he said we'll fill it in. He says they've got to replace your things. So we filled it in. About a week later I get a letter and it said since you carry insurance you're not eligible for help. I have never carried insurance. And they let that go. But now with the income tax papers, there is a requisition there to fill in. John is doing that Monday night. So that's as far as we've gotten with anything.

Older adults often experience multiple losses: retirement, death of a spouse, and chronic disease. The elderly who move to a long-term care facility have experienced the loss of their home and independence. Even with everything they had lost, which was virtually everything they owned, they were more concerned about what others, particularly families, had lost. They appeared to have come to terms with their lives, only asking for someone to aid them in their final years. This need for an advocate was clearly expressed by Mrs. H. whose family lived out of the area and so she had no one to advocate on her behalf.

> Interviewer: You told me that you lost several things in the flood? Can you tell me more about that?
> Mrs. H: I didn't have much left. When I moved out of my home I gave my children a lot and got rid of the rest. You know you can't bring much. The rooms are so small. I brought some pictures, books (pause) … some skeins of yarn and my clothes. (She laughs) Not much to show for a life is it?
> Interviewer: Was anything saved from the flood?
> Mrs. H: I took some clothes with me. I don't know what happened to the rest….Nobody told me where my stuff went. Probably to the junkyard.

The community, media and government agencies did not exhibit the same level of concern for the institutionalized elderly. These elders were moved multiple times while governmental officials debated the wisdom of rebuilding the long-term care facilities. This was interpreted by some of the elderly as societies way of forgetting about them and their needs. Mr. D summed up his feeling when he stated, "They don't care about us old people. They don't know what to do with us. We're just a bother." He later told me, "You don't want to get old, cause nobody wants you around." Mr. D clearly needed an advocate to help him see his continued value to society in general and his family in particular.

The older adults advocated for the families while hoping to have someone advocate for them and their needs. This was particularly true when the informants asked their families to advocate, or work on their behalf, by finding a long-term care facility in the Grand Forks community. Of the ten informants, each expressed a desire to return to the Greater Grand Forks area, the place they called home. Only four of the ten were ever able to return to facilities in Grand Forks/East Grand Forks, and, of those, two did not return to their pre-flood place of residence.

Theme B: Loss of Community

Community is more than the geographical location of individuals and families. It is a place where people develop a sense of belonging and identification. It is also a place where individual rights are enhanced or, at a minimum, protected. When we live in one place for an extended period of time we develop an understanding of the expectations and rules by which the community exists and flourishes. Each community has its own unique set of idiosyncrasies that are learned over time and through participation. These

expectations are often not in written form for us to learn; they only come through experience. When we move to a new community, the process begins again. Once again, we must identify services, where to access these services and the people we need to know--who controls the power. Disasters can bring a community together through the shared suffering phenomenon. When individuals suffered together, they tended to form a cohesive bond (Berren, Santiago, Beigel, & Timmons, 1989).

The emotional bond with the community was a significant resource for the institutionalized elderly. When they were not able to return, it became a loss of mammoth proportions.

Assertion # 3: Older Adults want to Maintain a Connection to the Community

Concern for the community continues after a person has moved to a new location. Several of the informants wanted information about the rebuilding of the Greater Grand Forks area and expressed a desire to return there, even if it had changed.

> Mrs. B: What's it like there now? Has it changed very much? I want to go back to Grand Forks, even if it's only for a visit. But I probably won't.

For others they wanted to return to their home community to live out the remainder of their life.

> Mrs. G: Grand Forks is my home. My folks are buried there. (She starts to cry.) Other family too. That's where I'm suppose to be buried... Will they take be back there?

The memories of happier times were an important aspect of their life review, a part of the aging process. The concern for a high school that was an important memory from her past left Mrs. K needing reassurances that it had survived the flood.

> Mrs. K: I was born in Grand Forks. Did you know that? Lived my life there and thought I'd die there. Now here I am in Minnesota. Oh, the

> people here are real nice and they try so hard. (Pause) I just want to go home. Be close to my family.
>
> Interviewer: So you lived your entire life in Grand Forks?
> Mrs. K: Ya, I was born in a house only three blocks from downtown. The house is gone now, of course, but it was a great neighborhood. I went to school at Central. Is that O.K.? I didn't hear that it had any water but it's so close to the river.

The sense of community extended beyond the city limits. Memories of past floods helped the informants make sense of what the community was experiencing.

> Mrs. V: Years ago, there was a flood then. And the whole Minto, we lived in Minto then, the whole lower part of Minto was flooded over. And so we went to the railroad tracks and went down to see how bad it was. But of course it was nothing of this proportion. That's the worst. Also, we lived near by Ardock at the lake. It's not much of a lake. So it had alkalis, and it would bubble up. My grandfather herded his cows there. So I would go get the cows and I was afraid to walk in between these places where it bubbled up. But granted, over the years, that had been drying. And it is not a lake anymore. But when we lived there, it was a lake. So that part is in a way a little bit like me, old and drying up (She laughs). Grand Forks will change too, but it will come back, better then ever.

The findings from this study supported information in related literature. Green (1982), found that an increase in the proportion of the local community affected by a disaster lead to an increase in the health consequences of the disaster. This could also be a result of dislocation from the community. The inability to return to the Greater Grand Forks area and/or their former place of residence not only led to a loss of community for the older adults in this study, but it also erased the sense of knowing what to expect. In addition, these elders were removed from the support network of people who had similar experiences, people with whom they could have shared their concerns.

According to Western and Milne (1979), evacuees who could not return to the impacted community exhibited the highest stress levels and the greatest incidence of

related psychosocial problems. Milne (1977 & 1979) expanded the information and stated that such victims were cut off from a familiar physical environment and from a supportive social environment as well. These were the factors that appeared to prolong the stress effects of a disaster. When adding the frequent residential moves, the impact was even greater. The evidence is clear that victims who fail to establish stable temporary housing, particularly if they become geographically isolated, will be more likely to exhibit negative psychosocial reactions (Lindy, Grace, & Green, 1981). The psychological effects can be compounded when victims do not feel in control of the relocation process (Garrison, 1985). When these factors are combined, depression and a sense of powerlessness emerge.

Efforts to combat this downward spiral must center on the support network. Support gathered from friends and family outside of the facility is critical to the well being of the older adult. Eckert (1983) noted several reasons that this connection is so necessary.

> First, a lack of social contacts may be an accompaniment to illness rather than a cause. Second, social networks may help to mediate certain health-related behaviors (e.g., exercise, use of alcohol, use of tobacco). A third possibility is that social networks may be a source of support in a crisis or life transition. Finally, social networks may be the medium through which individuals receive feedback essential to normal functioning. If feedback is not forthcoming or is spurious, behavior is disrupted and physiological processes are set in motion which may increase susceptibility to illness (p. 40).

Assertion # 4: The Long-Term Care Facility Becomes a Vital Part of the Support Network for Older Adults

Institutionalized elderly gather a significant amount of support from staff and other residents of the facilities in which they reside. This perceived support can be as valuable as the long established support networks usually recognized as essential to the well-being of older adults.

A community within a community was formed within the long-term care facilities. This community, however, took on even more significance because the staff and other residents of the facilities often became like family. The support and love that they offered each other was there on a daily basis. The biological family may have lived out of the area and so visited infrequently, making this segregate family even more important. Milne (1977) studied the impact of relocation and found that disaster victims who stayed within a familiar community, with an intact social support network, survived much better in the long run than those who left their communities. Those who were never able to return fared the worst.

When the facilities evacuated and the older residents in this study were moved to multiple facilities, the family units were broken, leading to isolation and despair. Ryan and Patterson (1985) reported that the underlying reason for loneliness in the elderly was desolation, being recently deprived of the companionship of someone who is loved whether through death or separation, rather than isolation.

The breakdown in the support network impacted on several levels. One of the most damaging appeared to be to the cognitive functions of support. The support here provided interpretations of events that reduce the uncertainty and provided a sense of

control or mastery over events that had occurred (Zinner & Williams, 1999; Albrecht & Adelman, 1987). When these older persons moved multiple times, they no longer had that network to provide those supports and so became lost in the maze of needs. Brown (1996) found that those with the most need for assistance seemed to be the most ignored by the social networks in housing for the aged. This phenomenon occurred for all of the informants at some time in the evacuation and relocation process. Following the flood each of the informants lost contact, even for a limited time, with the facility family.

> Interviewer: Do you still hear from the staff or anyone? You had so many friends there.
> Mrs. V: Yes, a lot. But they've quit writing. I heard from Betty for awhile, she wrote quite often. And I haven't heard from her now since Christmas. So I would say she got a job or moved on. And Sherry worked at St. John's for awhile. She wrote and said she worked with sixteen men. I don't know if I could do it. I suppose I could, but it would be very difficult for me. She hasn't written lately either. The rest scattered. I don't know where most of them are at.

Those who relied on this support to the greatest extent were, in many instances, the same individuals who were never able to connect again with the facility family or return to their home.

> Miss A: Oh, I miss the staff, especially Mary. She was in housekeeping. She worked so hard. Oh, she was a …she got down on her hands and knees, and I'll tell you, she got every little corner. And there isn't a corner that she didn't get out. She always asked me how I was. And she brought me cookies or hard candies. They're my favorite. I'm waiting for a letter from her. Do you think she knows where I am?
> Interviewer: The home has your new address.
> Miss A: Good, I don't want her to worry about me.

The institutionalized elderly were removed from their home communities as well as the community of support, the facility. Not only did they lose the sense of community, but they also experienced difficult relocation problems.

> Mrs. V: And 129 people spread out on the floor. No place to go. Nobody told us to do anything. So I sat down on the cot and then I thought well that's dumb-at least lay down. Well, I tried to lay down. If you've ever been on a cot, I hadn't been. Oh, I hurt so hard. So I thought the hell with it....First we slept on the floor for two weeks.

When relocating, including during an evacuation, the Administration on Aging (1977) recommended that the elderly not be placed in barracks type dorm housing because of the high premium they place on their privacy. This, however, was exactly what happened for a majority of the institutionalized elderly when they were relocated to a gymnasium at the Grand Forks Air Force Base or to a gymnasium at a community college.

> Mrs. V: We slept right out in the open. Well, then they started putting in additions between. To me it looked like a long time that we were going to be there or they wouldn't have bothered (She laughed). Then they made me a room across, put two sides in and put a thing at the front. Almost like a private room except that side was open. Not very private.

The facility community included the staff. Riverview's staff accompanied the residents during the initial relocations. This provided a time of transition and limited continuity as the residents were relocated to more permanent facilities.

> Mrs. H: One of the nurses said she had three children. One was south of Grand Forks, one was west of Grand Forks 20 or 30 miles, and one the other way. So she had three children and nobody home and she was working with us. If you don't think that was hard on those poor nurses. They put in 12 hours a day. But we were together. They stayed with us as long as they could.

While some had familiar staff they had few other services. Counseling services were not offered to aid these displaced elderly in dealing with their losses. Instead, they were expected to adapt to unfamiliar surroundings without the benefit of mental health services, and the problem was exacerbated by the fact that they needed to adapt multiple

times. Once they started to adjust to a new environment, they were moved once again. Residents of long-term care facilities interact more frequently with, and live in closer proximity to, a greater number of non-relatives of a similar age group which may influence the size, structure, and functions of support networks for these individuals (Friedman, 1966). The elderly participants in this study were forced to move so often that their ability to form new support networks was limited. The inability to return to their home of choice, or to even make the decision of where they would live, was difficult for the informants.

Theme C: Diminishing Locus of Control

Locus of control, internal and external, anchors our belief in our ability to overcome difficulties in our lives. The internal locus of control is the belief that we have the inner strength to handle a concern when it arises. External locus of control is a belief that luck, fate, or powers outside of ourselves are in control. To a certain extent each of us rely on both. However, the American Medical and Nursing Associations concluded that a sense of purpose and control over one's life is integral to the health of the aged (Johnson, Stone, Altaier, & Berdahl, 1998).

Diminishing locus of control was experienced by the institutionalized elderly in several ways and over an extended period of time. It is important to identify these events and to recognize the effects because people who believe that they have little control over important events in their lives report a higher level of psychological distress (Hale, Hedgepeth, & Taylor, 1985). As people age they experience many losses, often associated with role transitions, and with these losses often comes the inability to provide for all of their own cares. For many older adults someone, usually family, will decide

that they can no longer drive a car, or handle their own checking account. In the best of circumstances, the older adult will be consulted or even included in the decision making process. Too often, however, people assume that the older person cannot or should not be making these decisions. Whatever the reason, it is in the older persons' best interest to allow them to make their own decisions as long as they are able to do so.

The initial evacuation was conducted in a way that did not provide an opportunity for the elderly to determine where they would evacuate. Decisions were made for these older adults by the administrative staff of each facility. While this was necessary to facilitate a safe and orderly evacuation they were never advised of the plans.

It can be assumed that when plans were being made for the initial evacuation, there was little time to consult with the residents of the facilities. Plans needed to be made quickly and options were extremely limited. This, however, did not ease the impact of a forced relocation with no forewarning. According to Rapoport (1985), if an environment is not chosen, it is not home. It can become a home if the person is given time to adjust, and if the environment is transformed into something that is personally meaningful. Each subsequent move, most often completed with little or no input from the elderly, added to a feeling of having no control over their own lives. It led to a diminished locus of control.

Mrs. V provided insight into her feelings about the loss of control during the evacuation.

> Mrs. V: You know when we first got flooded. First of all when I heard on the news that there was a flood I thought they were crazy. O.K. We were on a hill, 20 feet up or more. You'd have to be awfully stupid to think that that would fill in with water, wouldn't you. That's the way I felt. And when they told us to put under things in a package, I did. But I didn't

> even take a coin purse or a nickel or a dime for a phone call or anything. I just didn't see how this could be a flood. Then they didn't say anything else. So after supper, first of all, at suppertime they served between five and five fifteen and they gave everybody a plastic bowl of vegetable soup, very good soup – thick and tasty, and a glass of milk. And they gathered that up and threw it all out. They never threw out food. And then they told us to report to the living room. O.K., we all did. This was about 6 p.m. So there we sit, and we sit, and we wait, and we wait, but no one told us what would happen. But they should have told us what was going on. But actually they did not say what was going on. Well, finally – it was exactly 12 o'clock when we got told to go out to the bus. I didn't know where we were going. I wanted to call my family. I couldn't do it.
> Interviewer: When did you finally get a hold of your family?
> Mrs. V: Two weeks. Well, then they started moving some of the people out and my daughter called. They couldn't find me. They didn't know where I was until they saw it on the news.
> Interviewer: They must have been so worried.
> Mrs. V: Oh, yes. When they heard my voice, that I was alright, they didn't worry as much.

While it is understandable that the older adults in this study could not have been asked to participate in deciding where they would evacuate, it is less clear why they were not consulted about subsequent moves.

> Mrs. G: There was no choice. I had no idea. In our heads, you'd have to know several places to make a choice. Well, there was no choice. Where you going to go? None of us really had a choice. We all expected to go back.

Similar sentiments were expressed by Mr. J.

> Mr. J: I wanted to go back, but I had to stay until the place opened again. I was just in the way.

Certainly not all institutionalized elders are able to participate in decision-making, but it should not be assumed that if institutionalized they are no longer capable. The informants were alert and able to articulate their wishes, yet no one asked.

> Mrs. H: I didn't want to move here. I didn't want to go anyplace. I wanted to go back to Grand Forks. (A sad laugh.) It's my home. They just came in and started packing my things. I asked what they were doing

> and she said I was moving. I asked where but she told me she didn't know. She was just suppose to pack my things. I thought oh good I'm going home.
> Interviewer: Instead you moved here?
> Mrs. H: No, I moved to Fargo. It was closer but I didn't like it there. It just wasn't home.

According to Krause (1987), older adults experience a much deeper sense of deprivation than the younger members of the community, this reflecting the real improbability of their being restored to their former state. This was certainly true when relocating. Several of the informants told me that they knew that they would never return to the Greater Grand Forks area, even though people told them they could return.

Rosen and Neugarten, (1960) found in their study that with increased age there is less energy available for responding to, or maintaining former levels of involvement in the outside world. The implication was that the older person tended to give up self-assertiveness and to avoid rather than to embrace the challenge of adapting to each new environment.

In 1994, Ekstrom identified five emotions surrounding relocation that included (a) "trust, mistrust, security and insecurity; (b) powerlessness, self-estrangement and belonging; (c) guilt, shame, pride and dignity; (d) the feeling of having been violated; and (e) stress" (p. 369). When people no longer had control, such as in forced relocation, their emotions primarily were those of a negative nature. It was Ekstrom's (1994) contention that psychological ill-health arises when emotions such as anxiety, mistrust, shame, sorrow, and loss become intensive, enduring and deeper, and permeate a large part of the person's world.

Theme D: Negative Correlation Between Multiple Moves and Health

Research has identified a relationship between the impact of natural disasters and a decline in health ratings (Phifer, Kaniasty, & Norris 1988; Cohen & Poulshock, 1977; Logue & Hansen, 1980; Melick, 1978; Melick & Logue, 1985-86; Price, 1978; Robins, Fischbach, Smith, Cottler, & Solomon, 1986). The underlying assumption is that the body attempts to cope with the demands made on it and draw upon the reserve. If the trauma is intense, prolonged, or repeated there is less reserve on which to draw, making the body less able to ward off illness. In addition, during times of trauma the person is less likely to provide the body with the necessities: food, rest, and so on, giving the body even fewer necessary resources. Research has found that older adults' health decreases with each move within a certain span of time (Beinin, 1985). This study obtained similar results.

One of the significant findings of several studies (Aldrich & Mendkoff; 1963; Killian, 1970; Bourestom, 1984; and Coffman, 1981) was that when a move was involuntary there was an increase in mortality. Other studies have contradicted these findings. In a review of the literature, Krause (1987) concluded that the stress of moving did not impact health. Krause went on to state that to gain a clear understanding of a potential correlation researchers needed to conceptualize reactions to stress as involving a process of readjustment where stress may initially produce symptoms of illness or emotional disorder, but where these symptoms eventually dissipate. My research found that when stressful events are continually being introduced, the older person does not have an opportunity to rebound or to have symptoms dissipate.

Assertion # 5: Inappropriate Time to Adjust and Limited Support may Create Relocation Problems for Older Adults

Moving is a major task. When the move is forced, the stresses associated with the negative demands are to a certain extent inescapable. Bourestom and Pastalan (1981) found that the outcome of relocation was dependent on three factors: individual characteristics, the environmental change, and if it was a voluntary decision to move. Studies (Danermark & Ekstrom, 1990; Rowles, 1983) suggested three dimensions of ties that develop over time: "(a) physical insideness, referring to the person's familiarity with their environment; (b) social insideness, referring to having a sense of community with their neighbors or a social network; and (c) auto-biographical insideness, referring to a feeling of belonging that emerges over time" (p. 38).

First, the individual characteristics of the person who is moving impacts on his/her ability to adjust to a move. Stress is created when the person seriously doubts his or her capacity to handle the situation (Ekstrom, 1994). The stress centers around the elders' belief that they can no longer trust their own ability to adapt. If they believe that they can trust their own ability, then they must determine if the environment will provide the security needed to adjust and make the facility their new home. Ekstrom (1994) has identified at least four conditions that determine whether or not security and trust can be maintained in a new environment:

> (a) the extent to which this environment is perceived as being stable, enduring, and unlikely to be subject to any great change in the near future; (b) whether this environment is known to the relocated person, or at least can become known to him or her in a fairly short time, and furthermore

> the extent to which the person becomes known and noticed; (c) the trust in and reliance on the people in this environment; and (d) whether the norms that the person has acquired are shared by the new neighbors. (p. 383)

Research has demonstrated that the perceptions of older adults' personal competence in performing behaviors or self-efficacy were more strongly related to successful nursing home adjustment than were their perceptions that outcomes were the result of intentional acts or locus of control (Johnson et al., 1998). These personal characteristics are important in determining successful adaptation to the new environment, but if personal characteristics were the only essential element the majority of older adults would be able to adjust.

The next element or characteristic is the new environment itself and the changes to which the older person must adjust. Fisher (1990) points out that there are a number of aspects of social life at the long-term care facility to which the incoming residents must adjust. Some of these relate to the formal social structure of the facility (e.g., environmental regimentation, segregated residency groups) and to the informal social structure maintained by the residents (e.g., avoiding those in other levels of care, ability to join already established friendship circles, territoriality and seating at meal times).

Ekert (1983) reported that if older people were given the opportunity to move to the facility of their choice, there was little effect on their health and well being. The ten informants in this study averaged more than three moves within the first year following the flood. Research has shown that it takes a minimum of six months to adjust to a new home. Clearly, a majority of the elderly impacted by the 1996-97 Greater Grand Forks flood did not have the time needed to make an adjustment. Of the informants, two who

did have time to adjust appeared to readily adapt to the evacuation and subsequent move to a permanent facility. Mr. J evacuated to a temporary location until his family could arrange for him to live with them. While this was a preferable alternative to moving to another long-term care facility, there were concerns about living with his son's family. When he learned that his former home was reopening he made the decision to return. Moving back to a facility that he considered his home was a positive experience for him.

> Mr. J: It sure was good to get back.
> Interviewer: How long were you at your son's home?
> Mr. J: Almost three months.
> Interviewer: So what did you miss?
> Mr. J: I guess, I don't know. Ya some of the guys and (pause)… and some of the others. You know, some of them that work here and …I don't know. I missed my card games. We play nearly every day. Whenever we can.

The connection to others and the identification with the facility, recognizing it as home made the return a pleasant alternative. Adjustment to familiar surroundings is easier then adjusting to the unknown. Social networks, family and friends, can serve as mediators as older adults cope with changes. The network can intercede when information is not being shared such as potential moves, speaking up for the older adults' rights.

Mrs. V was not able to return to the original facility but permanently relocated to a new facility and after a period of adjustment was able to adapt, making the facility her home.

> Mrs. V: The only thing we ourselves had never been through anything like that. We had no idea what was going to happen. After all we're over 90 years old. We're no spring chickens to start over fresh, you know. So it wasn't an easy thing to go through. And I noticed that the first four months that I was here even it wasn't like home. You just did what they were doing. But now I feel at home.

> Interviewer: You like it here then?
> Mrs. V: Oh yes. Food is good and they have entertainment a lot. We have bingo twice a week and once in a while a party. And then you do that too. The entertainment. They have speakers come in. Maybe something else too, but I do crocheting yet, so I keep busy. And it's home. My daughter's close by too you know, so that's nice.

Mrs. V was given the time she needed to make the adjustment. Others were not as fortunate. The multiple moves appeared to impact not only their adjustment, but their health as well.

> Mrs. B: At first I went to most of the activities, but I don't really do that anymore. Now I'm tired most of the time. I just don't feel good enough to go anymore.

Mrs. K expressed similar feelings.

> Mrs. K: I use to try and get to know the people, but I won't be staying here for long so there's not much point.

According to Herman (1992) a "supportive response from other people may mitigate the impact of the event, while a hostile or negative response may compound the damage and aggravate the traumatic syndrome" (p. 61). Herman suggested that the sharing of the traumatic experience with others is a precondition for the restitution of a sense of a meaningful world. Victims of traumatic events must find a way to restore a sense of connection with the wider community. That is not possible with multiple moves.

Assertion # 6: Previous Methods of Coping may be Ineffective in Extreme Traumatic Events

Over a lifetime a person will learn successful and unsuccessful methods of coping with crisis or traumatic events. The successful methods provide reassurance that we can survive and even flourish in difficult times. Research has documented that although men

and women do not differ greatly in the number of undesirable life events they experience, women are significantly more affected emotionally than men (Kessler & McLeod, 1984; Dohrenwend, 1973; Kessler, 1979; Radloff & Rae, 1981). Everyone does, however, face stressful events.

Ekstrom (1994) states that stress is regarded as a discrepancy between the environment's demands and the individual's resources. He went on to reflect that the unpredictable anonymous processes that intrude on everyday life often disturb stability and what has been taken for granted. In addition, they force people to realize that they are directly dependent on something over which they have no control and of which they have no grasp. It creates an anxiety and uncertainty that can contribute to the collapse of their basic security.

Natural disasters are certainly one of those unpredictable events and this assertion considers the resources or coping strategies. According to a study completed by Freedy et al. (1992), individuals who have survived a natural disaster are impacted by the response to disaster.

The type and extent of resource loss experienced may be a critical factor to consider in determining the most optimal coping strategies, initially and over time. Both personal characteristics and coping behaviors are predictors of post-disaster psychological distress (Freedy et al., 1992).

According to Phifer (1990), older adults may possess two advantages that promote the process of adaptation to disasters: a higher incidence of past resolved stressful experiences and a lower incidence of current unresolved stressful experiences. Norris and Murrell (1988) found that experience with disasters early in life reduced the

impact of disaster experienced late in life. Other studies (Hughs, Blazer, & George, 1988; Masuda & Holmes, 1978) found that older adults have fewer stresses in their life. This, however, is contrary to studies conducted by Caplan (1964). Caplan's crisis theory suggests that the simultaneous occurrence of other life crises may exacerbate the impact of a given crisis. As with most research, information regarding the use of past coping strategies is inconsistent.

According to a study conducted by Hutchins and Norris (1989), older adults have adaptability requirements that are less demanding than those of younger adults, and as a result, their adaptability is more effective. Their study, however, also suggested that older adults with increasing difficulties in their daily lives are at greater risk of trauma. At the other end of the spectrum was research including Friedsam (1962), who reported that the older adults' lack of resources, declining physical capacity, and limited time to replace losses would naturally reduce their ability to cope with problems especially those engendered by disasters. An example of this was the Huerta and Horton (1978) study of survivors of the Grand Teton Dam flood which found that persons under age 65 appeared more anxious and despairing than those over 65; those over 65 saw life as full of disasters.

Informants of the present study had difficulty identifying coping strategies used; most stated that they just got through a crisis any way that they could. Even though they could not readily identify strategies, throughout the interviews they would talk about methods used in the past even if they did not realize that they were strategies. These included: (a) sharing concerns with others, particularly good neighbors; (b) prayer; (c) work -- kept busy; (d) humor; (e) helping others; and (f) use of alcohol. It became clear

that many types of coping methods centered on interactions with others. Interviews also provided me with an understanding that these past coping strategies were no longer available or accessed. It most instances the support of others was unavailable because the support network was no longer available.

Eaton (1978) notes that many theorists have felt that socially isolated individuals are at higher risk for mental disorders. Persons with a strong social network are at an advantage because they can draw on the strengths and knowledge of others. This allows them to more evenly distribute the load of stress during a crisis situation. Friends and relatives provide emotional support during a crisis period, allowing the individual to talk about, plan, and adjust to changes necessitated by a crisis.

According to Bolin and Klenow (1988) disasters rarely are the first stressful life events that disrupt a person's life. Because of this, coping mechanisms and strategies are often already available from previous experiences. Responses to similar events become almost second nature. When it is a traumatic event that has never been experienced before, it is more difficult to know how to react, but again we use the strategies with which we are familiar. It must be noted, however, that multiple losses for the elderly may compound the need for coping strategies. In addition, losses may come on gradually, making the elderly unaware of any physical or mental deterioration until it begins to impact on several areas of their lives.

Bolin (1989) states that any impact characteristic or societal response that disrupts existing support networks or established behavioral routines has the potential for creating persistent emotional stresses. Krause (1987) states that older women have been found to have more social support than older men. He suggests that while the impact of a stressor

may be greater on elderly women, their superior social support networks may help them to rebound from the impact of a stressor more quickly than men.

As previously discussed, the most commonly used coping strategy among this study's informants involved contact with support networks, and this was negatively impacted by relocation. Mrs. K talked about the importance of neighbors.

> Interviewer: Could you tell me how you dealt with difficult times in the past?
> Mrs. K: What do you mean?
> Interviewer: Everyone has had bad times in their lives, how did you manage to get through those times?
> Mrs. K: Oh yes, I remember when Jane, my youngest, got sick. We couldn't afford a doctor but our church and neighbors got together and people gave. They didn't have it either … times were tough then … but they wanted to help. They gave us $23.00. I know that's not much now, but it was a lot of money back then. We could pay the doctor and buy the medicine for her. That's the way it was. You helped your neighbors.

While Mrs. K related her experiences in the past, Mr. J was able to identify a coping mechanism following the flood. His experiences were similar to the research findings of Reed and Payton (1996). They identified two themes that are necessary to adjust to new surroundings:

> constructing familiarity, whereby the older adult uses tenuous knowledge of people and places to make the home seem less strange and managing the self, whereby familiarity is used as a means of permitting social conversation to take place without leaving residents open to the dangers of being intrusive. (p. 543)

> Mr. J: It was good to see the people again.
> Interviewer: Do you mean your friends?
> Mr. J: Ya, they had all been moved too. Now we play cards again just like we done before.
> Interviewer: Do you like to have a routine?

Mr. J: Sure, you know what to expect. It ain't easy for us old coots to change you know (He laughs).

Older adults are confronted with the demand to adjust to changes at a time when their capacity for adaptation is greatly reduced. Krause (1987) states that some researchers believe that people experience a diminished ability to cope with stress as they enter later life. Yet this is a time of multiple changes; certainly relocation brought about major changes.

According to Wortman and Silver (1987), when a person perceives an event as harmful or as a threat it may result in emotion focused coping, such as avoidance, distancing, or displacement of emotion. Multiple moves were perceived as harmful to the emotional security of the older adults in this study. As a result, they distanced themselves from family, staff and other residents in the new facility.

Interviewer: They just announced crafts in the activity room. Do you want to go? I could take you down there.
Mrs. G: No, I don't go. They don't make anything useful anyway. Just dolls and scraps. I don't know what they're going to do with them anyway.
Interviewer: You can always visit with the other residents. Get to know them.
Mrs. G: No, they'll just move me again anyway. The first place I had friends, but now I ... I'll probably move again soon.
Interviewer: Do you have friends here?
Mrs. G: No, you get old and they all die. Its just life I guess.

The multiple moves discouraged attempts to make new friends and limited interaction with family members. It could be assumed that relying upon family would be a coping mechanism used in the past that would continue to be acceptable. However, it appeared that relying upon family and friends may often be seen as a new mechanism, particularly if the older adult had been socialized to be the care provider.

> Mrs. W: I always took care of the family. I disciplined, cleaned, I cooked. If one of the kids was hurt I took care of 'em. Now I can't even take care of myself.

Assertion # 7: Relocation Multiple Times Impacts both Adjustment and Health

A person's recovery from the distress of a traumatic event is dependent on the way the individual perceives, understands and deals with the event (Davidson & Baum, 1994). As indicated in these findings, the informants perceived themselves to be vulnerable to the wishes of others, because they could not return to the life they had known pre-flood. This led to depression and increased illness. "Later-life depression arises from the loss of self-esteem, loss of meaningful roles, loss of significant others, declining social contacts due to health limitations and reduced functional status, dwindling financial resources, and a decreasing range of coping options (Reker, 1997, p. 709)." In addition, Ferraro (1982) found that an increase in disabilities, need for assistance with ADL-functions, number of days spent ill in bed, and number of days spent ill in a hospital or other medical institutions strongly correlated with relocation. Research has indicated that relocation to another institution leads to an increase in mortality (Aldrich & Mendkoff, 1963; Killian, 1970). Similarly, the Administration on Aging (1997) found that changes associated with transfer trauma can lead to aggravation, depression, serious illness and even death among the elderly.

Thoits (1983) reports that very little is known about the length of the time between the occurrence of a stressor and initial symptom development. There is, however, research related to the impact on health that is associated with trauma or distress experienced over an extended period of time. Physiologically the body can experience different reactions such as prolonged elevations in blood pressure that may

contribute to hypertension or heart disease, immune system changes, as well as long-term changes in mood, metabolism, and behavior (Davidson & Baum, 1994). Hammer (1981) noted that there was a quantitative association between the extent of a person's social contacts and that person's likelihood of being ill.

This theme is concerned with the impact of stress related to multiple moves on the health of the institutionalized elderly. Loss of home, whatever form that takes, brings profound grief and may have long-term negative effects on adjustment (Fried, 1963). While each move following the Greater Grand Forks flood was completed with the best of intentions, it had a negative impact. How satisfied someone may be with a new environment, even if it appears objectively better, may in fact depend upon how much it is like the old environment (Stokols & Shumaker, 1981). According to Bolin (1985), the number of moves required to establish permanent housing or delays in finding permanent housing, especially those without sufficient cause or explanation, can contribute to prolonged distress.

Eight of the ten informants were subjected to multiple moves, ranging from two to five moves, within the first year following the 1996-97 Greater Grand Forks flood. The elderly informants were given neither time to adjust to the new facility nor input into where or when they would be transferred. The intent of the moves was based on good intentions, trying to get the person closer to the home area, to which they wished to return. Each move appeared to be built upon that premise. However, each move only added to the difficult adjustment during the post-impact phase. Bolin and Klenow (1988) reported that making frequent residential changes is disruptive and has strong negative

effects on the psychosocial recovery of all victims. The elderly are particularly vulnerable to this form of post-disaster stress.

Even those individuals who moved only twice in the process of relocation had difficultly with adjustment. Mrs. W had entered the long-term care facility two weeks before evacuation. While she did not wish to move to a facility, even for a short period of time, she realized that it was the best option. Since her family had assured her that it was only until the threat of a flood had passed, she had decided to make the best of the situation.

> Mrs. W: I knew I couldn't stay there with my husband gone. I had to do something. I don't mind telling you I was a little scared. (Pause) So when they came with this idea I said yes. I didn't want to a first, but whatcha gonna do? I just decided, oh well, you're safe so just wait it out.
> Interviewer: How long were you there before the flood hit?
> Mrs. W: I don't think it was even two weeks. Oh, maybe it was. I just don't remember for sure. Anyway, when they told us that we would have to leave I went to stay with my daughter. She lives in South Dakota. I don't know how they got a hold of her, but she came and got me as soon as she found out.
> Interviewer: Can you tell me more about the evacuation?
> Mrs. W: Oh, there's not much to tell. I thought I could stay with her after the flood, but the kids keep her so busy.

While it appeared at this point that she had accepted her relocation to a long-term care facility, it was only later that she talked about her feelings. It was then that it became apparent that she had not adjusted to her new home.

> Mrs. W: (Tearful) I didn't want to come back here. I was supposed to go home, not here. The basement of my house got water so my daughter said that I couldn't go back. But I could have. I could've cleaned it. (She smiled.) Oh, I know I couldn't have done it, but I could have found somebody to clean it. I want to go home. My daughter said this was my new home, but it's not. (She begins to cry.) It will never be my home. How can I live here when I can't have any of my belongings here? And my roommate, she's nice enough I guess, but she takes up the whole room. And she listens in when I have company. I just … I should go

> home. I don't belong here. I can take care of myself. (Pause) How could they do this to me?

Her confusion and anger at the circumstances of moving to the long-term care facility was evident. Staff and family members commented on the change in her personality since returning to the facility. Both mentioned that she had been a pleasant woman who had enjoyed visiting and participating in activities during the initial placement. After returning, she was diagnosed with depression, would no longer take part in activities without a great deal of encouragement, and complained frequently.

Mrs. G was even more articulate about the experience of relocating multiple times. Over the course of two months, since I first interviewed her, she had moved for the third time. The first move was to a temporary evacuation facility. She stayed there for approximately three weeks, finally relocating to a facility approximately 180 miles from the Greater Grand Forks area and her support system. This was where I first met her. At that time she was well dressed, with a necklace and combs in her neatly styled hair. She had been optimistic about returning to her home area and was participating in the activities offered, including chapel services, birthday parties and crafts.

Two months later she had moved once again and was experiencing health concerns. According to her medical records, she was complaining of chest pains and no longer wanted to continue her physical therapy. In addition, she had been prescribed an anti-depressant. She was refusing food and no longer willing to participate in activities. She stated that she was too tired and would rather remain in her room.

> Mrs. G: (Sighs) When we left I thought we'd go back soon. I never dreamt it would take this long. I'm too old. I just don't want to move again.
> Interviewer: Are you planning on moving back to Grand Forks?

Mrs. G: The social worker said that they might be able to get me back there. (Sigh) No, I won't be going back.
Interviewer: Tell me about your plans.
Mrs. G: I'll just stay here. I can't keep moving. It's hard when you get old. You don't make friends so easy. When your kids were small you could meet people. Now most of the people don't have their minds anymore. You can't talk to them.
Interviewer: Do you have friends here?
Mrs. G: No, not here. (Pause) I had lots in Grand Forks.
Interviewer: And did you make friends in Bemidji?
Mrs. G: Ya, some. I met a couple of women, but then I left and came here.
Interviewer: I'm sure you'll make friends here too.
Mrs. G: No reason to.

At this point she said that she was too tired to continue for the day. We were never able to continue or for her to make friends because she died a few weeks later of heart failure.

While Mrs. G was able to demonstrate the impact of multiple moves, Mr. D provided a clear summation of the impact. Of the ten informants, he had experienced the most moves--five within one year. After meeting with him several times, it became apparent to me that he was having a difficult time adjusting to the changes. At our third meeting he talked about his life, remembering happier times. Near the end of the interview, he informed me that he had lived a good life but no longer wanted to deal with moving again. He said that he was ready to die. Two weeks later he suffered a massive stroke and died.

When reviewing the responses of the informants, it became clear that social connectedness impacts on the health and well being of the institutionalized elderly. Four important factors that impact on social connectedness and health are: (a) isolation--a lack of social ties becomes a powerful risk factor for poor health; (b) social support in its

many forms--emotional, actual physical assistance, and so on, has direct positive effects on health; (c) social support can buffer or reduce some of the health-related effects of aging; and (d) no single type of support is uniformly effective for all people and all situations (Rowe & Kahn, 1998).

According to results of a study conducted by Phifer, Kaniasty, and Norris (1988), the impact on physical health appears to be strongest overall when both personal loss and high community destruction occur. Cohen and Ahearn (1980) hypothesized that persons at great risk of negative health impact following a disaster are those with pre-existing mental or physical health problems. Bolin (1989) found that victims who are denied access to social support, whether through evacuation, relocation, or alteration of the community during reconstruction, are more likely to experience psychosocial strains. A supportive social environment acts as a stress buffer for survivors and mitigates potential mental health impacts.

Kuypers and Bengtson (1973) proposed the Social Breakdown Syndrome (SBS) as an explanation of negative adjustment in old age. Decreasing social supports and a diminishing self-concept results in a self-perpetuating cycle of negative psychological functioning. The cycle begins with an existing precondition of susceptibility to psychological breakdown, possibly as a result of identity problems, declining health, loss of status, etc. This is followed by other persons labeling the older person as incompetent or deficient in some aspect of behavior. This negative labeling leads to the sick role. As the older person begins to identify more strongly with the sick role, self-efficacy becomes impaired and the older person begins to perceive him or herself as inadequate and incapable of independent action.

Whatever the reason, it is clear that every effort must be made to minimize the impact of a disaster through support, normalcy of the environment and attention to the elders' mental health needs. The final chapter addresses recommendations to ensure that these needs are met.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

In this chapter, I drew conclusions, based on the findings presented, and describe the implications of those conclusions for federal policy makers and long-term care administrators. The review of literature relevant to the findings was provided in Chapter IV and will not be repeated in this chapter. Finally, recommendations for further research are made.

Conclusions

Natural disasters, particularly floods, are increasing, and plans for protecting communities are constantly being developed and modified. Yet we know little about the impact of a disaster on specific populations, with the least amount of information regarding the impact on the institutionalized elderly.

Approximately 12 percent of the United States population is currently 65 years old and over and 21 percent are 55 years and over. Nationally, predictions for the future are that by the year 2030, 22.9 percent of the population will be 65 years and over, which implies one in ever four Americans (Sanders & Bratteli, 1994). More importantly, the 85+ age group is the fastest growing age group and the population segment most likely to be in need of services. Although only about 2.3 percent of those 65-74 years of age are institutionalized, nearly 35 percent of those age 85 and over live in institutional facilities

(Sanders & Bratteli, 1994). The old and oldest old adults are increasing and are expected to increase the need for institutional care.

Recently, national trends have shifted away from institutionalization toward home and community based services. However, there continues to be a need for institutional care for those elderly who require a greater level of services. Reallocation of dollars away from institutional care has led to fewer facilities and available beds within each community. This phenomenon has often required the elderly to be relocated to the nearest available facility, even outside of the area.

In the spring of 1997 a flood of monumental proportions brought the infrastructure of two cities, Grand Forks, North Dakota and East Grand Forks, Minnesota, to a standstill. Nearly every system required to maintain the cities was impacted, including the local hospital and all long-term care facilities. These facilities were evacuated with little notice, and the magnitude of the flood prevented them from using standard evacuation plans.

This situation required an innovative approach wherein long-term care facilities in the Greater Grand Forks area improvised in ways that they anticipated would provide the least amount of disruption to the residents. However, unforeseen circumstances lead to placements in locations that were less than ideal and resulted in multiple moves for many of the evacuees.

One year post-flood, 40% of the residents of all of the long-term care facilities in the area were still unable to return to the community. This inability to return to the support networks of family, friends and community, diminished the older adults' capacity to adjust to these new facilities. Health problems, physical and mental, increased

resulting in the deaths of all ten respondents within five years. Certainly other reasons, besides the disaster and subsequent moves, might have caused their health problems; thus, it is impossible to say definitively that the disaster was the cause. However, it is clear from the informants' reports that many evacuees lost hope. The pressures surrounding transfer trauma, diminished support networks and learned helplessness were clearly an important factor in their declining health.

Research has not come to an agreement as to when health is impacted. Several studies have found immediate adverse effects of disaster (Phifer, Kaniasty, & Norris, 1988; Abrahams, Price, Whitlock, & Williams, 1976; Bennet, 1970; Cohen & Poulshock, 1975; Price, 1978), while others have found that there were long-term adverse health consequences (Cohen & Poulshock, 1977; Logue, Hansen, & Struening, 1981; Melick, 1978; Melick & Logue, 1985-86). It should be noted that none of these studies combined the impact of a disaster with transfer trauma. When combining the negative aspects of both issues, it appears that the consequences are compounded. Caution should be used when drawing conclusions from this research, however, since I was unable to find any other studies to use for the purpose of comparison.

Five years after the flood the number of long-term care beds available in the Greater Grand Forks area still remains below the number that were available pre-flood. There were three hundred nine skilled beds and two hundred forty-five basic care beds and assisted living units total in the spring of 1997. By the spring of 2002 there were two hundred and seventy-eight skilled beds, ninety-six basic care beds and one hundred and thirty-one assisted living units. While the availability does not represent a dramatic difference, the pre-flood waiting lists for a bed have increased leading to relocation

outside of the community. This research study demonstrated that the loss of community can have an adverse effect on the elderly and is not advisable.

Combining the increasing number of older adults who will need institutional care in the future and the increasing number of natural disasters, it can be assumed that detailed evacuation plans will be required in the future. In the following section, alternatives for minimizing transfer trauma are suggested.

Implications of the Study

Implications will be identified in relationship to the four themes that were outlined in Chapter IV. Once again the implications are not listed in order of importance, but rather follow the order of themes presented earlier in this study.

Theme A: Advocating for an Advocate

- Whenever possible, the institutionalized older adult should be informed of current issues. Activities could include a morning news group where a review of the newspaper is included as well as a discussion of current local, regional and national events.
- During a disaster or other traumatic event, the facility should periodically offer activities to provide an alternative to the focused media coverage on the catastrophic event.
- Massive evacuation can and will separate families causing concern for the older adult. Not only will the elder wonder where his/her family is and if the family is safe, but there will be concern that the family may not know where the older adult has been placed. Facilities should assign a staff member to work with local service providers, such as the Red Cross, to

locate family members and make every effort to connect family members with the older adults as quickly as possible.

- Federal aid programs should be made available to provide financial support for replacement of lost possessions of the institutionalized elderly.
- A staff member or community volunteer should be available to assist in completing federal aid forms for those elderly without family to aid them.
- Education should be provided to community developers, leaders and the general public about the needs of the institutionalized elderly.
- Training should be provided for volunteer advocates who can speak on behalf of the institutionalized elderly.

Theme B: Loss of Community

- Professional counselors should be made a part of the facility support staff. They should be a visible and available part of the facility at all times so that when a resident needs mental health services, such as during transfer, the stigma has already been eliminated. If the cost is prohibitive to facilities, at a minimum counselors provided by service groups at no cost, such as the Red Cross, should be accessed following a disaster.
- Equally important, the facility should have a group of visiting volunteers who have been trained to provide one-on-one support to residents on an on-going basis. At the time of potential crisis, these volunteers should be called upon to provide additional support.
- Support groups are recognized as an effective form of assistance for people in crisis. Since transfer is a common event in long-term care

facilities, offering a support group could provide peer support when the resident is dealing with crisis.

Theme C: Diminishing Locus of Control

- A comprehensive federal and facility evacuation plan that takes into consideration the extremes that could occur should be developed. This plan should include contingency options in the event of a community wide evacuation that makes the local hospital or other health care facilities unavailable. This plan should include specific planning steps that outline the roles of other disaster relief agencies, including the names and phone numbers. This coordination of other agencies with the long-term care facility will increase effective use of personnel.
- Residents, when mentally alert, and their family members should be informed prior to any transfer. Even when time is limited, such as in an emergency, the resident should be told of the move, including where they will move and when.
- Whenever possible the residents and their families should be encouraged to provide input into the relocation process. This may include staff providing options regarding potential locations from which the resident and the family can select.
- Service providers to the elderly should be encouraged to facilitate ways in which the institutionalized elderly can contribute to the community, giving them an increased sense of purpose.

Theme D: Negative Correlation Between Multiple Moves and Health

- During an evacuation, every effort must be made to find a shelter that can meet the needs of this fragile population. General public shelters are not designed, equipped or staffed to manage the care of great numbers of chronic patients.
- In an effort to minimize transfer trauma, the older person should be prepared, not just notified, well in advance of a move. Personal possessions should be moved and arranged prior to the move, and staff and family must provide a great deal of personal attention.
- Staff, the older adult and family should be educated on the potential problems related to transfer trauma in general and trauma related to disaster specifically, including symptoms and methods that can be used to minimize its impact. Education should also include information regarding aspects of trauma that may be misdiagnosed (i.e., the elderly may have more difficulty remembering details of the disaster but experience additional somatic responses, not even realizing that the behaviors are still related to the trauma).
- Forms completed during the initial pre-placement phase into the long-term care facility should include questions that determine coping behaviors used in the past.
- Finally, the general public should be educated about the needs of the elderly, particularly those who are institutionalized. This education should be aimed at changing ageist stereotypes, encouraging self-efficacy

of the elderly through empowerment, and promoting a sense of ownership and control. The elderly must be empowered to ask for those benefits they need and are entitled to obtain.

Recommendations for Future Research

This research study has identified several areas of concern related to transfer trauma in the institutionalized elderly, but it does not address every potential concern. First, since there is a dearth of information regarding transfer trauma following a disaster, I would encourage additional research.

Second, future research should evaluate gender differences in relationship to the impact of evacuation and transfer trauma. Questions should include ways in which males and females react differently to transfer and differences in coping mechanisms. Research should also consider reasons why some people are more susceptible to the effects of traumatic events while others are more resistant.

Finally, research must consider ways in which staff and facility policies are lending themselves to transfer trauma. Identification of barriers will aid in the adjustment of the elderly to loss and trauma.

APPENDIX

DEFINITIONS

Activities of Daily Living (ADL's) – Functions such as bathing, dressing, using the toilet and feeding oneself.

Acute Care – Hospital care, not long lasting care.

Advocate – Person working with the elderly, especially during and after a disaster. The term does not necessarily indicate a professionally trained person (Administration on Aging, 1977).

Assisted living – Any group residential program that is not licensed as a nursing home, that provides personal care to persons with need for assistance in the activities of daily living, ADL's, and that can respond to unscheduled needs for assistance that might arise (Wacker, Roberto, & Piper, 1998).

Basic care – Impaired capacity for independent living requiring health, social or personal care services, but do not require regular twenty-four hour medical or nursing service (ND Century Code 23.09.3-01).

Bereavement – The state of deprivation or loss (Zinner & Williams, 1999; Switzer, 1970).

Community – Bonded together through time and any number of characteristics, for example, geography or profession (Zinner & Williams, 1999).

Disaster – An event, concentrated in time and space, in which a society, or a relatively self-sufficient subdivision of a society, undergoes severe danger and incurs such

losses to its members and physical appurtenances that the social structure is disrupted and the fulfillment of all or some of the essential functions of the society is prevented (Fritz, 1961).

Elderly – Persons 65 years of age and over.

Emergency – A serious situation or occurrence. It usually happens unexpectedly, but sometimes it can be anticipated; it also demands immediate attention. (Zinner & Williams, 1999).

Evacuation – Withdrawal from a place in an organized way for protection (Webster's, 1996).

Formal systems – Programs or organizations that are established to provide support, with clearly defined regulatory and governing bodies (i.e., hospitals, long-term care facilities, social service agencies).

Gerontology – The study of aging, including the social, emotional, physical, and economic factors.

Grief – The set of responses to a real, perceived, or anticipated loss (Zinner & Williams, 1999; Kastenbaum & Kastenbaum, 1989). Responses usually include physical, emothional, cognitive, and psychological componenets (Zinner & Williams, 1999; Rando, 1984).

Informal systems – Services provided by people or agencies that do not have regulatory or governing bodies (i.e., family care givers).

Intermediate Care – Care for people who can't live independently because of one or more severe, disabling, chronic illnesses. People participate in their own care, but in a limited way (Rob, 1991).

Learned Helplessness – Occurs when people are not in control, or perceive themselves to have no control, over events in their lives because they have been repeatedly punished or discouraged from trying to change a negative situation or condition (Furr, 1997).

Locus of control – The degree to which an individual perceives having control over the environment (Johnson, Stone, Altmaier, & Berdahl, 1966).

Long-term care facility – Also know as a nursing home. Institutional care given over a continuous and long period of time.

Loss – The separation of an individual or group of individuals from a loved or prized object; the object may be, for example, a person or group of persons, a job, social position or status, an ideal or fantasy, or a body part. (Zinner & Williams, 1999).

Mourning – The cultural response to grief (Zinner & Williams, 1999; Rando, 1984).

Oldest old – Persons who are 85 years of age and older.

Perceived support – An individual's subjective assessment of support received within a particular time frame, support available if needed, or satisfaction with or perceived adequacy of support (Newsom et al., 1997).

Posttraumatic stress disorder – Results from personal "exposure to an extreme traumatic stressor including, for example, actual or threatened harm or death to oneself; witnessing a death, injury, or threat to another; or learning about a death, injury, or threat to another (American Psychiatric Association (APA), 1994).

Self-efficacy – Personal judgments people make about their competence in performing the behaviors that may lead to desired outcomes (Johnson et al., 1998).

Skilled Care – Care provided by round the clock registered nurses, licensed practical nurses, and nursing assistants, under a physician's supervision (Rob, 1991).

Social networks – Involves counting the number of family and friends, the frequency of contact with network members, proximity to network members, and occasionally the amount of contact that members of the network have with one another (Newsom et al., 1997).

Transitory communities – Bound together situationally and only at one point in time (Zinner & Williams, 1999; Young, 1994).

Transfer trauma – Also known as relocation trauma, in this context is a condition that affects elders impacted by a disaster that results in being uprooted from routines and familiar surroundings.

Trauma – According to various dictionaries, is serious injury, wound, or shock to the body or to the mind, often resulting in psychological and behavioral disorders.

REFERENCES

Abrahams, M., Price, J., Whitlock, F. & Williams, G. (1976). The Brisbane floods, January, 1974: Their impact on health. Medical Journal of Australia, 2, 936-939.

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. (1978). Learned helplessness in humans: Critique and reformation. Journal of Abnormal Psychology, 87, 49-74.

Administration on Aging (1997). Disaster manual/elder response. Retrieved November 5, 1997, from the Administration on Aging's Web site: http://www.aoa.dhhs.gov/aoa/disaster/manual/fresp.html

Administration on Aging (1997). Transfer trauma: Minimizing the impact on community based and institutionalized elders. Retrieved November 5, 1997, from the Administration on Aging's Web site: http://www.aoa.ahhs.gov/aoa/disaster/manual/gtran.html

Agency for Healthcare Research and Quality (2002). Retrieved September 4, 2002, from the Agency for Healthcare Research and Qualities Web site: http://www.ahcpr.gov/research/ltcix.htm

Albrecht, T. L., & Adelman, M. B. (1987). Communicating social support: A theoretical perspective. In T. L. Albrecht & M. B. Adelman (Eds.), Communicating social support (pp. 64-75). Newbury Park, CA: Sage.

Aldrich, C. K., & Mendkoff, E. (1963). Relocation of the aged and disabled: A mortality study. Journal of the American Society, 11, 185-194.

American Psychiatric Association (1987). Diagnostic and statistical manual of mental disorders (DSM-IIIR). Washington, DC: American Psychiatric Press.

Arling, G., Karon, S. L., Sainfort, F., Zimmerman, D. R., & Ross, R. (1997). Risk adjustment of nursing home quality indicators. The Gerontologist, 37(6), 757-766.

Austin, L. S. (Ed.) (1992). Responding to disaster: A guide for mental health professionals. Washington, DC: American Psychiatric Press, Inc.

Baker, G. W., & Chapman, D. W. (Eds.) (1962). Man and society in disaster. New York: Basic Books, Inc.

Bakken, R. (1997). Come hell and high water. Grand Forks, ND: Grand Forks Herald, Inc.

Beinin, L. (1985). Medical consequences of natural disasters. Berlin, Germany: Springer Verlag.

Bennet, G. (1970). Bristol floods 1968. Controlled survey of effects on health of local community disaster. British Medical Journal, 3, 454-458.

Berren, M. R., Santiago, J. M., Beigel, A., & Timmons, S. A. (1989). A classification scheme for disasters. In R. Gist, & R. B. Lubin (Eds.), Psychosocial aspects of disaster (pp. 40-58). New York: Wiley.

Blair, J. A., Blair, R. S., & Rueckert, P. (1994). Pre-injury emotional trauma and chronic back pain. An unexpected finding. Spine 19(10), 1144-1146.

Bliss, J., Monk, M., & Ogborn, J. (1983). Qualitative data analysis for educational research: A guide to uses of systemic networks. Croom Helm, Australia: Croom Helm, Ltd.

Bogdan, R. C., & Biklen, S. K. (1982). Qualitative research for education: An introduction to theory and methods. Boston: Allyn and Bacon.

Bolin, R. (1989). Natural disasters. In R. Gist & R. B. Lubin (Eds.), Psychosocial aspects of disaster (pp. 59-85). New York: Wiley.

Bolin, R. C. (1985). Disasters and long-term recovery policy: A focus on housing and families. Policy Studies Review, 4(4), 709-715.

Bolin, R. C., & Klenow, D. J. (1982-83). Response of the elderly to disaster: An age-stratified analysis. International Journal on Aging and Human Development, Vol. 16(4), 283-295.

Bolin, R. C., & Klenow, D. J. (1988). Older people in disaster: A comparison of black and white victims. International Journal on Aging and Human Development, Vol. 26(1), 29-43.

Bourestom, N. (1984). Psychological and physiological manifestation of relocation. Psychiatric Medicine, 2, 57-90.

Bourestom, N., & Pastalan, L. (1981). The effects of relocation on the elderly: A reply to Borup, J. H., Gallego, D. T. & Heffernan, P. G. The Gerontologist, 21, 4-7.

Bowlby, J. (1973). Attachment and loss: Separation (Vol. II). New York: Basic Books.

Bowman, E. S., & Markand, O. N. (1996). Psychodynamics and psychiatric diagnoses of pseudoseizure subjects. American Journal of Psychiatry, 153(1), 57-63.

Brewer, J., & Hunter, A. (1989). Multimethod research: A synthesis of styles. Newbury Park, CA: Sage Publications, Inc.

Brown, A. S. (1996). The social processes of aging and old age (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Brozan, N. (1983, June 27). Emotional effects of natural disasters. The New York Times, p. B4.

Caplan, G. (1964). Principles of preventive psychiatry. New York: Basic Books.

Carmel, S., Koren, I., & Ilia, R. (1993). Coping with the Gulf war: Subculture differences among ischemic heart disease patients in Israel. Social Sciences and Medicine, 37(12), 1481-1488.

Choi, N. G. (1996, September). Older persons who move: Reasons and health consequences. The Journal of Applied Gerontology, 15(3), 325-344.

Cicirelli, V. G. (1999). Personality and demographic factors in older adults' fear of death. The Gerontologist, 39(5), 569-579.

Clayer, J. R., Bookless-Pratz, C., & Harris, R. L. (1985, August). Some health consequences of a natural disaster. Medical Journal of Australia, 143, 182-184.

Clemens, P. E., Hietala, J. R., Rytter, M. J., Schmidt, R. A., & Reese, D. J. (1998). Flood impact and the effect on domestic violence in Grand Forks community. Grand Forks,ND: Unpublished essay.

Cockerham, W. C. (1997). This aging society (2nd ed.). Upper Saddle River: NJ: Prentice-Hall, Inc.

Coffman, T. L. (1981). Relocation and survival of institutionalized aged: A reexamination of the evidence. The Gerontologist, 21, 483-500.

Cohen, E., & Poulshock, S. (1975). The elderly in the aftermath of a disaster. Gerontologist, 15, 357-361.

Cohen, E. S., & Ahearn, F. L. (1980). Handbook for mental health care of disaster victims. Baltimore: Johns Hopkins University Press.

Cohen, E. S., & Poulshock, S. W. (1977). Societal response to mass relocation of the elderly. The Gerontologist, 17, 262-268.

Cohen, R. (1983, June 27). Natural disaster: Hidden legacy of pain. The New York Times, p. B5.

Cook, J. D., & Bickman, L. (1990). Social support and psychological symptomatology following natural disaster. Journal of Traumatic Stress 3(4), 541-556.

Creswell, J. W. (1998). Research design: Qualitative & quantitative approaches. Thousand Oaks, CA: Sage Publications, Inc.

Cumming, E., & Henry, W. (1961). Growing old: The process of disengagement. New York: Basic Books.

Danermark, B., & Ekstom, M. (1990). Relocation and health effects on the elderly: A commented research review. Journal of Sociology & Social Welfare, 17(1), 25-49.

Danermark, B. D., Ekstrom, M. E., & Bodin, L. L. (1996). Effects of residential relocation on mortality and morbidity among elderly people. European Journal of Public Health, 6, 212-217.

Davidson, L. M., & Baum, A. (1994). Psychophysiological aspects of chronic stress following trauma. In R. J. Ursano, B. G. McCaughey, & C. S. Fullerton (Eds.), Individual and community response to trauma and disaster: The structure of human chaos (pp. 360-377). New York: Cambridge University Press.

Dey, A. N. (1997, July 2). Characteristics of elderly nursing home residents: Data from the 1995 national nursing home survey. Advance Data, No. 289. Hyattsville, MD: Department of Health & Human Services.

Dohrenwend, B. S. (1973). Social status and stressful life events. Journal of Personality and Social Psychology, 9, 203-14.

Drayer, C. W. (1957, January). Psychological factors and problems, emergency and long-term. Annual American Academy of Political Social Science, 309, 151-159.

Dweck, C. S., & Wortman, C. B. (1980). Learned helplessness, anxiety, and achievement motivation: Neglected parallels in cognitive, affective, and coping responses. In H. W. Krohne & L. Laux (Eds.). Achievement, stress, and anxiety. Washington, DC: Hemisphere.

Eaton, W. W. (1978, June). Life events, social supports, and psychiatric symptoms: A re-analysis of the New Ha: :n data. Journal of Health and Social Behavior, 19, 230-234.

Eckert, J. K. (1983). Dislocation and relocation of the urban elderly: Social networks as mediators of relocation stress. Human Organizations, 42(1), 39-45.

Ekstrom, M. (1994). Elderly people's experiences of housing renewal and forced relocation: Social theories and contextual analysis in explanations of emotional experiences. Housing Studies, 9(3), 369-391.

Ely, M., Vinz, R., Downing, M., & Anzul, M. (1997). On writing qualitative research: Living by words. Washington, D.C.: Falmer Press.

Falger, P. R., Op den Velde, W., Hovens, J. E., Schouten, E. G., DeGroen, J. H., & Van Duijn, H. (1992). Current posttraumatic stress disorder and cardiovascular disease risk factors in Dutch Resistance veterans from World War II. Psychotherapy and Psychosomatics, 57(4), 164-171.

Federal Emergency Management Agency (1997). Flood Management. Retrieved November 5, 1997, from the Federal Emergency Management Agencies Web site: http://www.fema.gov

Ferraro, F. (1982). The health consequences of relocation among the aged in the community. Journal of Gerontology, 38, 90-96.

Fetterman, D. M. (1989). Ethnography step by step. Newbury Park, CA: Sage Publications, Inc.

Fetterman, D. M. (Ed.) (1991). Using qualitative methods in institutional research. San Francisco: Jossey-Bass Inc., Publishers.

Fisher, B. J. (1990). The stigma of relocation to a retirement facility. Journal of Aging Studies, 4(1), 47-59.

Fox, J. W. (1980). Gove's specific sex-role theory of mental illness: A research note. Journal of Health and Social Behavior 21, 260-67.

Frazier, K. (1979). The violent face of nature: Severe phenomena and natural disasters. New York: William Morrow & Company, Inc.

Frederick, C. J. (1977). Current thinking about crisis or psychological equivalents of destructive behavior in mass emergencies. (Vol. 2, pp. 5-11). Washington, DC: U.S. Department of Health and Human Services.

Frederick, C. J. (1977). Current thinking about crisis or psychological intervention in United States disasters. Mass Emergencies, 2, 43-50.

Freedy, J. R., Shaw, D. L., Jarrell, M. P., & Masters, C. R. (1992). Towards an understanding of the psychological impact of natural disasters: An application of the conservation resources stress model. Journal of Traumatic Stress, 5 (3), 441-454.

Fried, M. (1963). Grieving for a lost home. In L. J. Duhl (ed.) The urban condition: People and policy in the metropolis. New York: Basic Books.

Friedman, E. P. (1966). Spatial proximity and social interaction in a home for the aged. Journal of Gerontology, 21, 566-570.

Friedsam, H. (1961). Reactions of older persons to disaster caused losses: An hypothesis of relative deprivation. Gerontologist, 1, 34-37.

Friedsam, H. J. (1962). Older person in disaster. In G. W. Baker & D. W. Chapman (Eds.) Man and Society in Disaster, (pp. 151-182). New York: Basic Books.

Fritz, C. E. (1961). Disasters. In R. K. Merton & R. A. Nisbet (Eds.). Contemporary social problems (pp. 651-694). New York: Harcourt.

Furr, L. A. (1997). Exploring human behavior and the social environment. Boston: Allyn and Bacon.

Garrison, J. (1985). Mental health implication of disaster relocation in the United States. Journal of Mass Emergencies and Disasters, 3(2), 49-66.

Gerrity, E., & Steinglass, P. (1994). Relocation stress following natural disasters. In R. J. Ursano, B. G. McCaughey, & C. S. Fullerton (Eds.), Individual and community response to trauma and disaster: The structure of human chaos, (pp. 220-247). New York: Cambridge University Press.

Gesler, W. M., Rabiner, D. J., & DeFriese, G. H. (Eds.) (1998). Rural health and aging research: Theory, methods and practical applications. Amityville, NY: Baywood Publishing Company, Inc.

Gibbs, M. S. (1989). Factors in the victim that mediate between disaster and psychopathology: A review. Journal of Traumatic Stress, 2(4), 489-514.

Giorgi, A. (Ed.) (1985). Phenomenology and psychological research. Pittsburgh, PA: Duquesne University Press.

Gist, R., & Lubin, B. (Eds.) (1989). Psychosocial aspects of disaster. New York: John Wiley & Sons.

Glesne, C., & Peshkin, A. (1999). Becoming qualitative researchers: An introduction. Boston: Addison Wesley Publishing Co.

Golden, R. R., Teresi, J. A., Gurland, B. J. (1982-83). Detection of dementia and depression cases with the comprehensive assessment and referral evaluation interview schedule. International Journal of Aging and Human Development, 16(4), 241-296.

Gove, W. R. (1972). The relationship between sex roles, marital status, and mental illness. Social Forces 51, 34-44.

Grady, K. E., & Wallston, B. S. (1988). Research in health care settings. Newbury Park, CA: Sage Publications, Inc.

Green, B. L. (1982). Assessing levels of psychological impairment following disasters: Considering of actual and methodological dimensions. Journal of Nervous and Mental Disease, 170(9), 544-552.

Green, B. L. (1996). Cross-national and ethnocultural issues in disaster research. In A. J. Marsekka, M. J. Friedman, E. T. Gerrity, & R. M. Scurfield (Eds.), Ethnocultural aspects of posttraumatic stress disorder (pp. 341-362). Washington, DC: American Psychological Association.

Griffin, M., & Waller, M. V. (1985, Fall). Group therapy for the elderly: One approach to coping. Clinical Social Work Journal, 13(3), 261-271.

Gubrium, J. F., & Sankar, A. (Eds.). (1994). Qualitative methods in aging research. Thousand Oaks, CA: Sage Publications, Inc.

Hale, W. D., Hedgepeth, B. E., & Taylor, E. B. (1985). Locus of control and psychological distress among the aged. International Journal on Aging and Human Development 21(1), 1-26.

Hammer, M. (1981). Impact of social networks on health and disease. Paper presented at the Annual Scientific Meeting of the American Association for the Advancement of Science, January 4.

Harvey, J. H., Stein, S. K., Olsen, N., Roberts, R. J., Lutgendorf, S. K., & Ho, J. A. (1995). Narratives of loss and recovery from a natural disaster. Journal of Social Behavior and Personality, 10 (2), 313-330.

Herman, J. L. (1992). Trauma and recovery. United States: Basic Books.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. American Psychologist, 44(3), 513-524.

Hobfall, S. E., & de Vries, M. W. (Eds.) (1995). Extreme stress and communities: Impact and intervention. Dordrecht, The Netherlands: Kluwer Academic Publishers.

Horowitz, M. J. (1976). Stress response syndromes, 2nd ed. Northvale, NJ: Aronson.

Huerta, F., & Horton, R. (1978). Coping behavior of elderly flood victims. The Gerontologist, 18 (6), 541-546.

Hughes, D. C., Blazer, D. G., & George, L. K. (1988). Age differences in life events: A multivariate controlled analysis. International Journal on Aging and Human Development, 27, 207-220.

Hunter, D. E. (1976). Doing anthropology: A student-centered approach to cultural anthropology. New York: Harper & Row.

Hutchins, G. L., & Norris, F. H. (1989, January). Life change in the disaster recovery period. Environment and Behavior, 21(1), 33-56.

Israel, J. (1971). Alienation: From Mars to Modern Sociology. Boston: Allyn & Bacon.

Janis, I. L. (1951). Air war and emotional stress: Psychological studies of bombing and civilian defense. New York: McGraw-Hill.

Jerrome, D. (1992). Good company: An anthropological study of old people in groups. Edinburgh: Edinburgh University Press.

Johnson, B. D., Stone, G. L., Altaier, E. M., & Berdahl, L. D. (1998). The relationship of demographic factors, locus of control and self-efficacy to successful nursing home adjustment. The Gerontologist, 38(2), 209-216.

Jones, J. C., & Barlow, D. H. (1992). A new model of posttraumatic stress disorder. In P. A. Saigh (Ed.). A behavioral approach to assessment and treatment (pp. 147-165). New York: Macmillan.

Kasl, S. V., Ostfeld, A. M., Brody, G. M., Snell, L., & Price, C. A. (1980). Effects of "involuntary" relocation on the health and behavior of the elderly. In S. G. Haines & M. Feinleib (Eds.), Second conference on the epidemiology of aging: Proceedings of the second conference (NIH Publication No. 80-969, p. 211-232). Bethesda, MD: U.S. Department of Health and Human Services.

Kessler, R. C. (1979). Stress, social status, and psychological distress. Journal of Health and Social Behavior, 20, 259-72.

Kessler, R. C., & McLeod, J. D. (1984, October). Sex differences in vulnerability to undesirable life events. American Sociological Review, 49, 620-631.

Kilijanek, T. S., & Drabek, T. E. (1979). Assessing long-term impacts of a natural disaster: A focus on the elderly. The Gerontologist, 19, 555-566.

Killian, E. C. (1970). Effect of geriatric transfers on mortality rates. Social Work, 15, 19-26.

Kinston, W., & Rosser, R. (1974). Disasters: Effects on mental and physical state. Journal of Psychosomatic Research, 18, 437-456.

Krause, N. (1987). Exploring the impact of a natural disaster on the health and psychological well-being of older adults. Journal of Human Stress, 13, 61-69.

Kreps, G. A. (1984). Sociological inquiry and disaster research. Annual Review of Sociology, 10, 309-330.

Kuypers, J. A., & Bengtson, V. L. (1973). Competence and social breakdown: A social-psychosocial view of aging. Human Development, 16(2), 37-49.

Kvale, S. (1996). Interviews: An introduction to qualitative research interviewing. Thousand Oaks, CA: Sage Publications, Inc.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

Lehman, D. R., Wortman, C. B., & Williams, A. F. (1987). Long-term effects of losing a spouse or child in a motor vehicle crash. Journal of Personality & Social Psychology, 52(1), 218-231.

Leibson, C. L., Garrard, J., Nitz, N., Waller, L., Indritz, M., Jackson, J., Rolnick, S. J., & Luepke, L. (1999). The role of depression in the association between self-rated physical health and clinically defined illness. The Gerontologist, 39(3), 291-298.

Lemon, B. W., Bengston, V. l., & Peterson, J. A. (1972). An exploration of the activity theory of aging: Activity types and life satisfactions among in-movers to a retirement community. Journal of Gerontology, 27, 511-523.

Lester, S. (1997). An introduction to phenomenological research. Retrieved October 25, 1998, from Stan Lester Developments Web site: http://www.devmts.demon.co.uk/resmethy.htm

Lindy, J. D., Grace, M. C., & Green, B. L. (1981). Survivors: Outreach to a reluctant population. American Journal of Orthopsychiatry, 5, 468-478.

Louge, J. N., & Hansen, H. (1980). A case-control study of hypertensive women in a post-disaster community: Wyoming Valley, PA. Journal of human stress, 6, 28-34.

Logue, J. N., Hansen, H., & Struening, E. (1981). Some indications of the long-term health effects of a natural disaster. Public Health Reports, 96, 67-79.

Logue, J. N., Melick, M. E., & Hansen, H. (1981). Research issues and directions in the epidemiology of health effects of disasters. Epidemiologic Reviews, 3, 140-162.

Lord, J. H. (1996). America's number one killer: Vehicular crashes. In K. J. Doka (Ed.), Living with grief after sudden loss (p. 91-102). Washington, DC: Hospice Foundation of America.

Lorraine, N. (1954). Controlled survey of effects on health of local community disaster. Medical Officer, 91, 59-62.

Lucas, P. A., Leaker, B. R., Murphy, M., & Neild, G. H. (1995). Loin pain and haematuria syndrome: A somatoform disorder. Quarterly Journal of Medicine, 88(10), 703-709.

Marshall, C., & Rossman, G. B. (1995). Designing qualitative research (2nd Ed). Thousand Oaks, CA: Sage Publications, Inc.

Masuda, M., & Holmes, T. (1978). Life events: Perceptions and frequencies. Psychosomatic Medicine, 40, 236-261.

Maxwell, J. A. (1992). Understanding and validity in qualitative research. Harvard Educational Review, 62, (3), 279-299.

McNeil, J. S., & Canon, R. L. (1997). Mental health services to older adults. In T. R. Watkins and J. W. Collicut (Eds.), Mental health: Policy & practice (pp. 286-297). Thousand Oaks, CA: Sage Publications.

Melick, M. E. (1978). Life change and illness: Illness behavior of males in the recovery period of a natural disaster. Journal of Health and Social Behavior, 19, 335-342.

Melick, M. E., & Logue, J. N. (1985-86). The effects of disaster on the health and well-being of older women. International Journal on Aging and Human Development 21(1), 27-38.

Merriam-Webster's Collegiate Dictionary (1996). Springfield, MA: Merriam-Webster, Incorporated.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis, 2nd ed. Thousand Oaks, CA: Sage Publications, Inc.

Miller, J. A., Turner, J. G., & Kimball, E. (1981). Big Thompson flood victims: One year later. Family Relations, 30, 111-116.

Miller, J. B. (1976). Toward a new psychology of women. Boston: Beacon.

Miller, J. E., & Verrier, R. I. (1996). Triggering sudden death: Lessons from an earthquake. New England Journal of Medicine, 334, 460-461.

Milne, G. (1977). Cyclone Tracy: Some consequences of the evacuation of adult victims. Australian Psychologist, 12, 39-54.

Milne, G. (1979). Cyclone Tracy: Psychological and social consequences. In J. I. Reid (Ed.), Planning for people in natural disaster (pp. 116-123). Townsville, Queensland, Australia: James Cook University of North Queensland.

Moore, H. (1958). Tornadoes over Texas. Austin, TX: University of Texas Press.

Moustakas, C. (1994). Phenomenological research methods. Thousand Oaks, CA: Sage Publications, Inc.

Murtaugh, C. M., & Freiman, M. P. (1995). Nursing home residents at risk of hospitalization and the characteristics of their hospital stays. The Gerontologist, 35(1), 35-43.

Myers, J. E. (1991). Empowerment for later life. Ann Arbor, MI: ERIC Clearinghouse on Counseling and Personnel Services.

National Organization for Victim Assistance (1994). Community crisis response training manual. Washington, DC: Author.

Newsom, J. T., Bookwala, J., & Schulz, R. (1997). Social support measurement in group residences for older adults. Journal of Mental Health and Aging, 3(1), 47-66.

Norris, F. H., & Murrell, S. A. (1988). Prior experience as a moderator of disaster impact on anxiety symptoms in older adults. American Journal of Community Psychology, 16, 665-683.

North Dakota Department of Human Services (1997, September). Delivering human services in a time of disaster: The flood of 1997. The North Dakota Journal of Human Services, 1(4).

O'Brien, L. S. (1998). Traumatic events and mental health. Cambridge, England: Cambridge University Press.

Ollendick, D., & Hoffman, S. M. (1982). Assessment of psychological reactions in disaster victims. Journal of Community Psychology, 10, 157-167.

Parad, H. J., Resnik, H. L. P., Ruben, H. L., Zusman, J., & Ruben, D. D. (1975). Crisis intervention and emergency health care: Concepts and principles. In H. L. P. Resnik, H. L. Ruben, & D. D. Ruben (Eds.), Emergency Psychiatric Care: The Management of Mental Health Crisis (pp. 1-21). Bowie, MD: The Charles Press.

Parasuraman, S. (1996, April). Methodological issues in studies on resettlement and rehabilitation of project displaced people. The Indian Journal of Social Work, 57(2), 191-219.

Patti, G., Pignalberi, C., Chimenti, C., Cianflone, D., & Maseri, A. (1995). Psychological stress as precipitating factor of the acute manifestations of ischemic cardiopathy. Cardiologist, 40(4), 229-234.

Patton, M. Q. (1987). How to use qualitative methods in evaluation. Newbury Park, CA: Sage Publications, Inc.

Patton, M. Q. (1990). Qualitative evaluation and research methods (2nd Ed.). Beverly Hills, CA: Sage Publications, Inc.

Phifer, J. F. (1990). Psychological distress and somatic symptoms after natural disaster: Differential vulnerability among older adults. Psychology of Aging, 5, 412-420.

Phifer, J. F., Kanisty, K. Z., & Norris, F. H. (1988). The impact of natural disaster on the health of older adults: A multiwave prospective study. Journal of Health and Social Behavior, 29, (March), 65-78.

Polit, D., Beck, C., & Hungler, B. (2001). Essentials of nursing research: Methods, appraisal, & utilization (5th ed.). Philadelphia: Lippincott.

Price, J. (1978). Some age-related effects of the 1974 Brisbane floods. Australian and New Zealand Journal of Psychiatry, 12, 55-58.

QSR NUD*IST 4 user guide, 2nd ed. Thousand Oaks, CA: Sage Publications, Inc.

Quarantelli, E. L. (1985). What is disaster? The need for clarification in definition and conceptualization in research. In B. J. Sowder (Ed.), Disasters and Mental Health: Selected Contemporary Perspectives (DHHS Publication No. ADM 85-1421, pp. 41-73). Rockville, MD: CMHS (formerly NIMH).

Radloff, L. S., & Rae, D. S. (1981). Components of the sex differences in depression. In R. G. Simmons (Ed.), Research in Community and Mental Health. Greenwich (pp. 77-110), CT: JAI Press.

Rapoport. A. (1985). Thinking about home environments: A conceptual framework. In I. Altman & C. M. Werner (eds.) Home environments. New York: Plenum Press.

Reed, J., & Payton, V. R. (1996). Constructing familiarity and managing the self: Ways of adapting to life in nursing and residential homes for older people. Aging and Society, 16, 543-560.

Reed, M. K. (1998, June). Disaster preparedness pays off. Journal of Nursing Administration 28 (6), 25-31.

Reker, G. T. (1997). Personal meaning, optimism, and choice: Existential predictors of depression in community and institutional elderly. The Gerontologist, 37(6), 709-716.

Rob, C. (1991). The caregiver's guide: Helping elderly relatives cope with health and safety problems. Boston: Houghton Mifflin Company.

Robins, L. N., Fischbach, R. L., Smith, E. M., Cottler, L. B., & Solomon, S. D. (1986). Impact of disaster on previously assessed mental health. In J. H. Shore (Ed.), Disaster stress studies: New methods and findings. Washington, DC: American Psychiatric Press.

Rosen, J. L., & Neugarten, B. L. (1960). Ego functions in the middle and later years; a thematic apperception study of normal adults. Journal of Gerontology 15, 62-70.

Rowe, J. W., & Kahn, R. L. (1998). Successful aging. New York: Pantheon Books.

Rowles, G. D. (1983). Between worlds: A relocation dilemma for the Appalachian elderly. International Journal of Aging and Human Development, 17, 301-314.

Rubonis, A. V., & Bickman, L. (1991). Psychological impairment in the wake of disaster: The disaster-psychopathology relationship. Psychological Bulletin 109(3), 384-399.

Ruskin, P. E., & Talbott, J. A. (Eds.) (1996). Aging and posttraumatic stress disorder. Washington, DC: American Psychiatric Press, Inc.

Ryan, M. C., & Patterson, J. (1985). Loneliness in the elderly. Journal of Gerontological Nursing, 13(5), 6-11.

Sanders, G. F., & Bratteli, M. J. (1994, May). Aging North Dakota: A profile of older adults. Grand Forks, ND: Resource Center on Gerontology.

Schaie, K. W., & Willis, S. L. (2002). Adult Development and aging (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Schatzman, L., & Strauss, A. L. (1973). Field research: Strategies for a natural sociology. Englewood Cliffs, NJ: Prentice Hall.

Seidel, J. V. (1995). Qualitative data analysis. The ethnograph: A user's guide, Amherst, MA: Qualis Researcher Associates.

Seligman, M. E. P. (1975). Helplessness: On depression, development, and death. San Francisco: W. H. Freeman and Company.

Silin, P. (2001). Nursing homes: The family's journey. Baltimore: Johns Hopkins University Press.

Solomon, S. D., & Canino, G. J. (1990). Appropriateness of DSM-III-R criteria for post-traumatic stress disorder. Comp. Psychiatry 31, 227-237.

Stokols, D., & Shumaker, S. A. (1981). People in places: A transactional view of settings. In J. H. Harvey (ed.) Cognition, social behavior, and the environment. Hillsdale, NJ: Erlbaum.

Strauss, A., & Corbin, J. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage Publications, Inc.

Taylor, A. J. W. (1989). Disasters and disaster stress (Stress in modern society, Series # 10). New York: AMS Press, Inc.

Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. American Psychologist 38 (11), 1161-73.

Taylor, S. J., & Bogdan, R. (1998). Introduction to qualitative research methods: A guidebook and resource, 3rd ed. New York: John Wiley & Sons, Inc.

Tesch, R. (1990). The ethnograph. Qualitative research: Analysis types & software tools. New York: Falmer Press.

Tesch, R. (1990). Qualitative research: Analysis types & software tools. New York: Falmer Press.

Thoits, P (1983). Dimensions of life events that influence psychological distress: An evaluation and synthesis of the literature. In H. Kaplan (Ed.), Psychological Stress: Trends in Theory and Research (pp. 33-103). New York: Academic Press.

Tobin, S., & Lieberman, M. A. (1976). Last home for the aged. San Francisco: Josey-Bass.

Turner, J. H. (1998). The structure of sociological theory, 6th ed. Belmont, CA: Wadsworth Publishing Company.

United Nations, Department of Humanitarian Affairs (1997). Retrieved November 5, 1997, from One World's Web site: http://www.oneworld.org/idndr

Ursano, R. J., McCaughey, B. G., & Fullerton, C. S. (Eds.) (1994). Individual and community responses to trauma and disaster: the structure of human chaos. Cambridge, Great Britain: Cambridge University Press.

U.S. Department of Health, Education and Welfare (1977). Planning for the elderly in natural disaster. Washington, DC: Office of Human Development.

Van Der Kolk, B. A., McFarlane, A. C., & Weisaeth, L. (1996). Traumatic stress: the effects of overwhelming experience on mind, body, and society. New York: The Guilford Press.

Van Manen, M. (1990). Researching lived experience: Human science for an action sensitive pedagogy. London, Ontario: State University of New York Press.

Wacker, R. R., Roberto, K. A., & Piper, L. E. (1998). Community resources for older adults: Programs and services in an era of change. Thousand Oaks, CA: Pine Forge Press.

Weaver, J. D. (1995). Disasters: Mental health interviews (Crisis Management Series). Sarasota, FL: Professional Resource Press.

Western, J. S., & Milne, G. (1979). Some social effects of a natural hazard: Darwin residents and Cyclone Tracy. In R. L. Heathcote & R. G. Thom (Eds.), Natural hazards in Australia (pp. 448-502). Canberra: Australian Academy of Science.

Whittrock, W. C. (Ed.) (1986). Handbook of research on teaching, 3rd ed. New York: McMillan Publishing Co.

Widdison, H. A., & Salisbury, H. G. (1990). The delayed stress syndrome: A pathological delayed grief reaction? Omega, 20(4), 293-306.

Wiener, J. M., & Stevenson, D. G. (1997, November). Long-term care for the elderly and state health policy. New Federalism: Issues and Options For States, Series A, No. A-17. Washington, DC: The Urban Institute.

Williams, C. (1997). How to survive a flood or other catastrophe: A manual for disaster victims. Grand Forks, ND: The Author.

Wolfelt, A. D. (1987). Resolution vs. reconciliation: The importance of semantics. Thanatos (Winter), 10-13.

Wolinsky, F. D., Johnson, R. L., & Stump, T. E. (1995). The risk of mortality among older adults over an eight-year period. The Gerontologist, 35(2), p. 150-161.

Wortman, C. B. (1983). Coping with victimization: Conclusions and implications for future research. Journal of Social Issues, 39(2), 195-221.

Wortman, C. B., & Silver, R. C. (1987). Coping with irrevocable loss. In G. R. VandenBos & Bryant (eds.) Cataclysms, crises, and catastrophes: Psychology in action, (pp. 187-235). Washington, DC: American Psychological Association.

Zinner, E. S., & Williams, M. B. (Eds.) (1999). When a community weeps: case studies in group survivorship. Philadelphia, PA: Brunnerr/Mazel Publishing.