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Tollefson, T.A.

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Elder Coping and Victimization

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Tod Andrew Tollefson, geboren op 29 december 1958 te

Cape Girardeau, Missouri, USA

Promotores: prof. dr. M. S. Groenhuijsen

prof. dr. J. P. J. Dussich

Overige leden van de Promotiecommissie:

prof. dr. M. S. Groenhuijsen

prof. dr. J. P. J. Dussich

prof. dr. J. van Dijk

prof. dr. Gerben Meijnen

prof. dr. Karel Oei

prof. dr. John Rijsman

Abstract

This study seeks to characterize the ways that adults in later life manage a variety of life challenges. The theoretical framework for this study is the Psycho-Social Coping Theory (PSCT). PSCT is broadly applicable to characterize the ways an individual seeks to reduce stress brought on by a problem.

A total of 355 elders visiting 14 senior centers in the Phoenix, Arizona metropolitan area completed a self-administered questionnaire on 18 variables identified in the coping literature. Findings confirm that the more resources elders have, the more enhanced their ability to manage stress. The appraisal of resources for managing a problem fades in importance among the oldest elders. The emotional value of social interaction appears to grow over time among elders in a manner that shapes their positive outlook on life. Elders seek to prevent or work through their role as victims of crime, natural disasters or traffic accidents by purposively applying their resources and controlling their emotions. These findings may be used to assess individual elders, to tailor effective programs for them and to focus advocacy efforts.

Key Words: elder, coping, victimization, senior center

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Table of Contents

Page

Chapter I Statement of the problem..1

Chapter II Review of the literature...16

Chapter III Hypotheses..59

Chapter IV Methods..64

Chapter V Findings...70

Chapter VI Discussion..78

Chapter VII Conclusions...86

Chapter VIII Future directions...90

Appendix 1 Key theoretical source documents..93

Appendix 2 The questionnaire...98

Appendix 3 Response characteristics for all variables............................104

Appendix 4 Coding sheet...112

References..118

List of Tables **Page**

Table 1 Number of years for a population age 65+ to increase from 7% to 14%, by developed and developing countries..........................3

Table 2 Personal and household victimizations by type of crime and age, 1993-2002..54

Table 3 Hypotheses, variables and statistical tools................................63

Table 4 Statements in the questionnaire for measuring coping variables using a Likert scale...65

Table 5 Demographic data for elder respondents and for elders age 60+ in the city of Phoenix...71

Table 6 Total Variance Explained and Comparison of PCA eigenvalues with parallel analysis criterion values to determine the number of factors for subsequent rotation..72

Table 7 Pattern/structure of coefficients in a two-factor solution for coping variables using Varimax Rotation...73

Table 8 Correlation of social support and perceived resourcefulness by level of education..74

Table 9 Correlations of the selective application of resources by perceived resourcefulness by age cohort...74

Table 10 Perceived adaptability X situational control by age cohort...75

Table 11 View of the aging process X social capability and X relational affinity, by age cohort...75

Table 12 Last year of school completed X traffic accident fault type (my fault, not my fault and undetermined fault)....................................76

Table 13 Situational control X two criminal victimization variables: assault and robbery/theft/burglary...77

Table 14 Reaction X recovery for three traffic accident types: my fault, not my fault and undetermined fault..77

List of Figures   Page

Fig. 1 Global population, ages 65+ and <5, 1950-2050..............................2

CHAPTER I

Statement of the problem

Introduction

The global, human population is aging in ways without precedent in human history. This aging population will impact societies, communities and individuals in wide-ranging, profound ways. The sustainability of public and private pensions systems, healthcare systems and other social services during the expected increase in the number of retirees will require concerted, creative effort (Kune, 2009). An effective response to this increase in the number of elders requires a thorough understanding of the diversity, needs, problems, limitations and potential of elders. The focus of the current study is to characterize the ways that elders manage a variety of life challenges. The theoretical framework for this study is Psycho-Social Coping Theory (PSCT). PSCT is broadly applicable to characterize the ways an individual seeks to reduce stress brought on by a problem, whether the problem is part of a daily routine or a traumatic victimization.

Background of the problem

The rapid aging of the global population presents challenges to policymakers, communities and individuals. For the first time in human history, there will be more people age 65+ on the planet than children under five (Figure 1). This shift likely will continue for the rest of human history (National Institute on Aging, 2007).

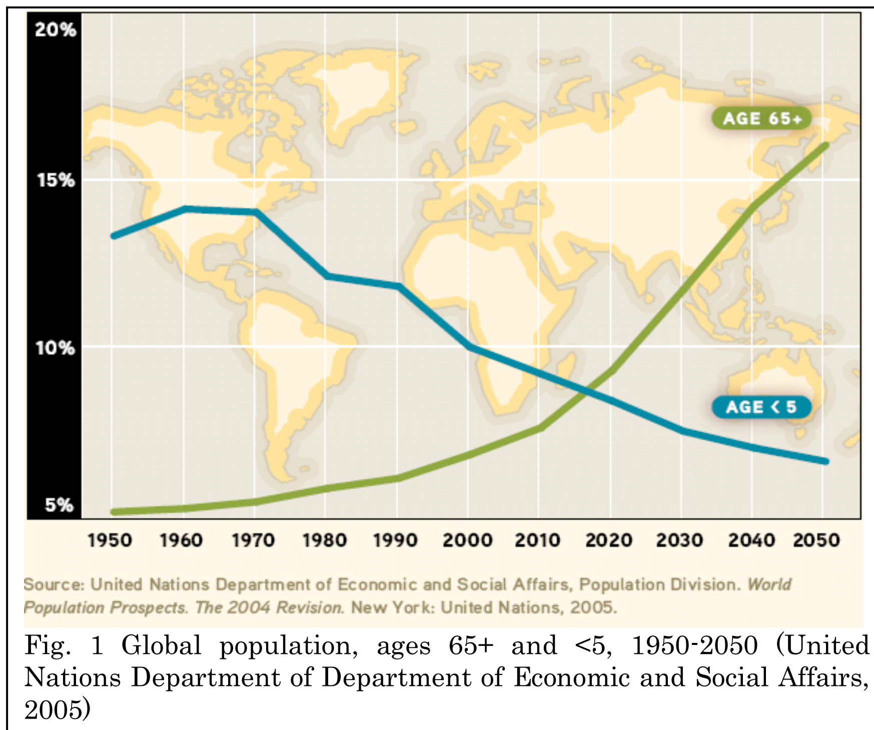


Fig. 1 Global population, ages 65+ and <5, 1950-2050 (United Nations Department of Department of Economic and Social Affairs, 2005)

A related issue is the speed of aging in both developed and developing countries. Table 1 shows the number of years in select countries for the 65+ population to increase from 7% to 14% of the national population. The concern is that, given the costs of supporting elders, some countries will become old before they become rich enough to render that support (National Institute on Aging, 2007).

Table 1. Number of years for a population age 65+ to increase from 7% to 14%, by developed and developing countries (National Institute on Aging, 2007).

Developed Countries	# of years	Developing Countries	# of years
France (1865-1980)	115	Azerbaijan (2000-2041)	41
Sweden (1890-1975)	85	Chile (1998-2025)	27
Australia (1938-2011)	73	China (2000-2026)	26
US (1944-2013)	69	Jamaica 82008-2033)	25
Canada (1944-2009)	65	Tunisia (2008-2032)	24
Hungary (1941-1994)	53	Sri Lanka (2004-2027)	23
Poland (1966-2013)	47	Thailand (2003-2025)	22
UK (1930-1975)	45	Brazil (2011-2032)	21
Spain (1947-1992)	45	Colombia (2017-2037)	20
Japan (1970-1996)	26	Singapore (2000-2019)	19

Physical challenges of aging

Elders contend with a variety of acute and chronic diseases. From a coping standpoint, disease is significant to the extent that it impacts function: the ability to carry out activities that are part of daily living such as bathing or getting dressed. The three most common causes of death for Americans of all ages are: cancer (20%), organ failure which is usually heart or lung disease (25%), and frailty and dementia (40%). Cancer deaths peak at age 65, deaths from organ failure peak at age 75; and deaths from frailty and dementia, usually past 85 years of age. Deaths from frailty and dementia (usually diseases of the very old) are expected to increase in the future due to improvements in the treatment and prevention of cancer, pulmonary disease and heart disease which usually allow elders to live longer (Gross, 2008b).

The effect of each of these diseases upon function is quite distinct (Figure 3). From the initial impact of the disease upon function until time of death, cancer is very swift. Organ failure reveals a more gradual slope until

the point of death, and frailty and dementia, a prolonged period of very limited function. Custodial care is not reimbursable through Medicare, the medical insurance program for elders in the USA, consequently many elders and their families experience a significant financial loss in arranging custodial care (Gross, 2008b). Extended periods of dwindling function present a formidable challenge both to society and the elder.

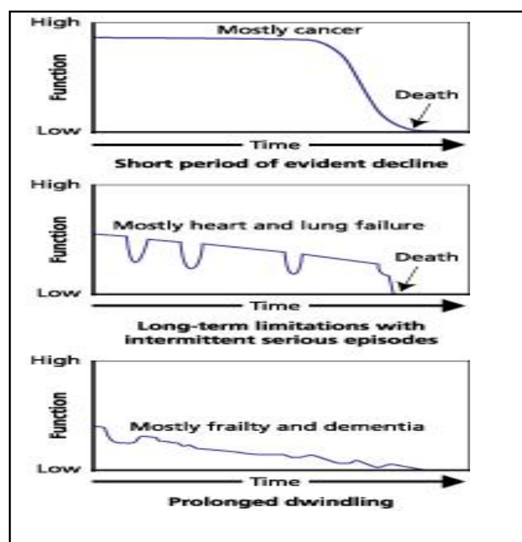


Figure 3 Cancer, heart and lung failure, and frailty and dementia as they affect function prior to death (Gross, 2008).

Mental challenges of aging

Of particular concern to elders are those brain diseases which affect cognition. Alzheimer's disease is one form of dementia that affects one in eight elders age 65 and over and 42% of those over 85 years of age (Gross, 2007b). Fewer than one in 200 individuals will live beyond 90 years of age

with no signs of dementia. One of the insidious dimensions of dementia is that it robs the individual of the self-awareness needed to appraise and respond to his/her condition (Carey, 2009). Alzheimer's disease progresses through a series of stages: memory lapses, personality changes and confusion, evolving to a period of disorientation, restlessness, agitation, moodiness, violence and wandering off (John, 2004). Due either to dementia or frailty, 90% of people who survive into their 80s will not be able to care for themselves (Gross, 2008a).

Economic challenges of aging

Individual retirement plans whose contributions are voluntary, are not worth as much as traditional company pension plans, whose contributions were mandatory (Walsh, 2004). In the current economic recession, property values have plummeted, and Americans 50 years of age and over account for approximately 28% of foreclosures and delinquencies. Especially for elders, a home foreclosure or drop in value of property or investments represents a loss from which there is limited time to recover (Herbert, 2008).

The mix of public and private financing of health care in the United States gives for-profit health care insurers and providers an incentive to cut costs and deny care to elders in a way that may have a significant impact upon their well-being. Cynical health insurers know, for example, that if they simply stonewall long enough, the elder making the claim will give up or die.

The US federal government is complicit in this health insurance scheme. It enacted legislation providing incentives for elders to purchase long-term health insurance policies in order to delay a funding crisis in Medicare, the public health insurance program for elders (Duhigg, 2007).

Elders who are unable to care for themselves are particularly vulnerable and may not receive proper care in nursing homes. In 2007, 90% of nursing homes were found to be in violation of federal standards regarding patient health and safety. Approximately 17% of the shortcomings of nursing homes in this survey resulted in actual harm to patients or placed them in jeopardy, such as through mistakes in medication, infected bedsores or poor nutrition. About 20% of the verified violations constituted patient abuse and neglect (Pear, 2008).

The focus of the current study is not upon the nature of the problems that elders confront, but rather in how an elder copes with a problem in his or her life. As such, the unit of analysis is the individual elder. Some problems such as chronic illness may not yield to enduring solutions. Coping in this context may mean learning to live with a particular diagnosis or life situation for one's remaining years. However, coping is especially relevant to the situation of elders because many problems, situations, diseases and conditions are potentially modifiable and relevant to future victimizations (National Institute on Aging, 2007). For example, using memory as a measure of cognition, the variables of education, intellectual activity, extroversion, and neuroticism were better predictors of memory than was

age. Factors related to biology, socio-economic status, lifestyle and personality may play a significant role in retaining or developing cognitive skills, and these factors are at least partially within the control of the individual (Arbuckle, Gold, & Andres, 1986). Ongoing research into genetics has clarified that the older one gets, the more significant one's choices become in shaping the remaining course of one's life. By the time one reaches the age of 50, fully 70% of one's life situation is within the purview of one's choices; the remaining 30% is said to be determined by one's genes. Genes simply provide the individual with an opportunity to make choices about one's life situation (Pressler, 2011).

Victimology is focused upon understanding the situation of victims. Victimology also includes studying victim assistance and the prevention of victimization. Improving an elder's skills to deal with problems in everyday life may decrease the probability of being victimized and improve the prospects of recovery following victimization.

Impact of not coping well

Features of later life may make it difficult for an elder to address life problems that directly impact health, quality of life, and life satisfaction. Cognitive, physiological, and financial capabilities that an individual formerly may have drawn upon to address a problem may diminish in later life. A gradual or sudden loss of hearing, vision, smell, touch, or taste may affect how an elder gathers information and interacts with his or her

environment. Diminished physical or mental capabilities challenge the efforts of elders to maintain or elevate coping skills. Perhaps for the first time in one's life, an elder is faced with diminished personal capabilities that may remain for the rest of their lives. Impaired cognition may adversely affect reasoning and memory in ways that inhibit an elder from becoming aware of, and responding to, his or her new situation. Emotional instability may accompany paranoia, disbelief, denial, feelings of being a child, anger, frustration, confusion, guilt, shame, grief, insecurity, worry, fear, stress, and obsessive-compulsive behaviors; these feelings may significantly complicate an elder's experience of daily living. Ultimately, the real impact of the decline in capabilities is assessed in terms of its effect upon function in daily life, either as an activity of daily living (ADL) or as an Instrumental Activity of Daily Living (IADL) such as using the phone, driving a car or taking public transportation, grocery shopping, preparing meals, taking medicine, and using the toilet (Yang & George, 2005).

Significance of the problem

The demographic bulge of the baby boom generation, those born between 1946 and 1964 in the United States, find counterparts in countries around the globe. This development means that individuals, communities and entire societies will confront the implications of elder coping on an unprecedented scale. The baby boom generation in the United States, which began turning 65 years of age in 2011, will swell the ranks of those 65 years

of age and over from 37 million in 2006 to 72.1 million in 2030, representing an increase from 12% to nearly 20% of the American population. Already the fastest growing sector of the population, those 85 years of age and older will rise in number from 5.3 million in 2006 to an estimated 21 million in 2050. A decline in future death rates could increase the number of people in this age group (Administration on Aging, 2008).

A national survey in the US of state-level Adult Protective Services (APS) in 2004 to gather data on the incidence of reports of elder abuse substantiates the challenges faced by policymakers, community leaders, and the elders themselves in responding to elder abuse. Abuse in the survey includes physical, psychological, and sexual abuse, neglect, self-neglect, and financial/material exploitation (Teaster, 2006). While states do not gather data in a uniform manner, 32 states identified the victim of abuse as 60 years of age or older, yielding a national rate of 8.3 reports of abuse per 1,000 people 60 years of age or older. That over half of the perpetrators of the abuse in substantiated cases were family members (54.1%) or a spouse or intimate partner (11.3%) may inhibit the elder from reporting the abuse to APS. It is estimated that only 21% of all abuse cases are reported to and substantiated by APS (Otto, 1999). Controlling for demographic characteristics, chronic disease, functional status, social networks, cognitive status and depressive symptoms, elders with an experience of elder abuse or self-neglect are 3.1 and 1.7 times likelier, respectively, to die prematurely (Lachs, Williams, O'Brien, Pillemer, & Charlson, 1998). Premature death as a result of abuse

reveals the diminished resiliency of these elders.

The character of elder abuse in substantiated cases highlights the central role of the coping process in the lives of elders. The two largest categories of abuse were self-neglect and caregiver neglect, at 37.2% and 20.4%, respectively. A clear majority of cases (89.3%) occurred in domestic settings. Nearly two-thirds (65.7%) of victims were female. Victimization by age of victim was 20.8% between the ages of 60-69, 36.5% between the ages of 70-79, and 42.8% for those 80 years of age and older. Older cohorts are in greater need of care, and this dependence is a risk factor for abuse (Teaster, 2006). The rapid increase in the population of the oldest old (85+) sets the stage for an increase in the levels of elder abuse. An additional complicating factor for elders seeking assistance with their abuse is that in most states, the investigating agency is APS. Concerted action by public authorities to deal with elder abuse may not be forthcoming. The diverse character of elder abuse makes it difficult to define in the public eye, with the result that elder abuse is perceived as a family problem rather than a national problem, similar to the initial perceptions of domestic violence and child abuse (Barker, 2000).

Some elders may provide care to a partner or family member with a long-term disability. Providing care presents a host of unique challenges that may strain an elder's ability to successfully manage a caregiving situation, as evidenced by the high levels of isolation and depression among elder caregivers (Russell, 2001; Saad, Hartman, Ballard, Kurian, Graham, &

Wilcock, 1995). Informal caregivers, usually unpaid family members, frequently experience a steep drop in their well-being, which may trigger abuse (John, 2004).

The growing proportion of elders in the population is the result of elders living longer in a society with fewer children. Compared to 1900, in 2007, the 65-74 age group became 8.8 times larger; the 75-84 age group became 17 times larger, and the 85+ age group, the fastest growing cohort, became 45 times larger. Elders also are increasingly female. Older women outnumber older men, 21.9 million to 16 million, respectively. In the southwestern state of Arizona where data for the present study was gathered, the number of elders 65+ increased by 36.2% from 1997-2007, accounting for 12.9% of the state population in 2007 (Administration on Aging, 2008). For some elders, the death of a spouse may result in the elder living alone for the first time in his or her life.

Senior Centers

Enactment of the Older Americans Act of 1965 provided the funding for the establishment, renovation and maintenance of senior centers across the United States. Envisioned as a focal point where elders could meet for services and activities, senior centers have come to offer a diverse array of programs and services in the areas of education, recreation, creative arts, employment, health, social work, nutrition, leadership development, and other services deemed to be of value to elders in the local community.

Nutrition programs were prioritized initially to meet the needs of low-income elders and remain the top priority of many senior center directors today regardless of income level. Diverse funding sources prompt many senior center directors to diversify the programs offered (Pardasani, 2009).

Senior centers may be classified either as voluntary organizations that offer seniors recreational and social activities or as social service agencies that connect especially poor and frail elders with needed services. Senior centers that orient themselves as voluntary organizations tend to attract elders who are more affluent, better educated and more socially active. Serving the diverse, evolving needs of local elders is a creative challenge for all senior center staff. The diversity of senior centers reveals that no single model has been adopted across the country; rather, senior center staff strive to identify and offer programs that are responsive to the needs and desire of the participants (Pardasani, 2009).

Who attends senior centers? Many rural elders who attend senior centers live alone and identify socializing and nutrition as their reasons for attending. Participants generally live close to the senior center and are aware of the types of programs and services offered. Among elders over the age of 85, frail elderly constitute perhaps 10% of those attending senior centers, while middle-income elders who are socially active and mobile were more likely to attend those centers that functioned as voluntary associations. A decline in health decreases the degree and frequency of attendance (Miltiades, Grove, & Drenovsky, 2005; Pardasani, 2009).

A focus on the coping of elders dovetails closely with the mission of senior centers. In a survey of elder participants in California, Florida, Iowa, Maine, New Hampshire, Texas and Tennessee, 75% of participants felt that their attendance of senior center activities and programs helped them to remain independent, with socialization identified by the elders as a key component in improving their quality of life and staving off cognitive decline. A guide for operating a senior center stipulates that effective senior center programs will help the elder participants grow, manage their lives better and fulfill their needs as they "age in place." More recent areas of focus include technology support, lifelong learning, primary health promotion, elder abuse prevention, life and financial planning, mental health services, community ombudsman services and caregiver support. Senior centers in Iowa City, Iowa, and Madison, Wisconsin, produce their own TV shows. Public entities at the federal, state and local levels focus on those senior center programs which augment the independent living skills of elders in order to delay the much more expensive option of institutionalization (Pardasani, 2009). Senior centers have proven to be a promising venue for public health promotion activities (Wallace, Buchner, Grothaus, Leveille, Tyll, LaCroix, & Wagner, 1998).

Senior centers have attracted the attention of social science researchers. Interviews with 120 elders at 6 Manhattan senior centers revealed that perceived autonomy in one's life is linked to service satisfaction, being white and receiving social support (Matsui & Capezuti, 2008). A

Canadian study found that caregiving as an element of receiving social support is significantly associated with physical health, perceived well-being and life satisfaction. Receiving advice is associated with the elder's perception of having an interesting life. Elders who began a new activity felt that they had better health and social support from friends compared to those who did not begin a new activity (Fitzpatrick T., 2005).

Summary

In a context of stable or diminishing capabilities, the emergence in later life of unpredicted problems raises the question as to how elders cope. The demographic bulge of elders, coupled with their longer lives, poses significant challenges to local communities, health care, social service and pension systems, to provide a measure of dignity to the lives of elders. Due to their broad applicability across various domains of daily life, coping efforts to retain valued function and preserve independence shape an elder's quality of life and influence the support and services required by elders. That elders seek to remain in control of their lives is demonstrated by research indicating that elders who require extensive support display feelings of emotional distress, vulnerability, reduced self-esteem and a sense that they have been coerced (Cornwell, 2009). By inquiring among community-dwelling elders attending senior centers who seem to cope successfully, the present study intends to characterize the coping skills of elders. These factors are applicable to the assessment of elders seeking

services and for targeting advocacy.

CHAPTER II

Review of the Literature

Coping is defined as the "thoughts and behaviors used to manage the internal and external demands of situations that are appraised as stressful" (Folkman & Moskowitz, 2004, p. 746). The situation is deemed by the individual to be stressful in a way that challenges or exceeds the ability of the individual to respond. Coping efforts may focus on the problem, on the emotions generated by the problem or on avoidance of the problem. Managing the perceived demands of a situation may mean avoiding, tolerating, minimizing or removing the stress. The goals of the coping process include reducing stress associated with a situation or environmental condition, facilitating recovery, and retaining a positive self-image, emotional equilibrium and a viable relationship with the environment. Coping is transactional due to its desired impact upon the relationship of the individual to the environment (Green, 2000). Successful coping is responsive to the complex, constantly evolving character of the environment, to individual resources and the history and personality of the individual. These dimensions shape the appraisal of the situation and the choice of coping resources. Coping regulates emotion, especially distress, throughout the stressful situation. The unit of focus of the coping process is the individual, the environment, and the relationship between the individual and the environment (Folkman & Moskowitz, 2004).

The current broadly shared understanding of the coping process

evolved from the work of Richard Lazarus in the mid 1960s. A focus upon how ordinary people manage stress in their daily lives was conceptualized as distinct from the earlier focus on pathology, ego-psychology and defense. Early research leading to the current understanding of the coping process reflected a broader focus in psychology in the 1960s on the relationship between cognition and emotion, as well as on how individuals process information in the context of stressful conditions (Folkman & Moskowitz, 2004).

Coping research strives to elucidate the variation in coping styles between individuals. Coping research of large and small populations includes the social sciences, medicine, public health and nursing. Personality, developmental history and culture may be factors which lead to individual variation. Research into coping differences by gender is not prominent in the coping literature, though one study determined that men persist in problem-focused approaches even when the outcome is not controllable. Individuals of either gender may persist in problem-focused approaches when the situation relates to a domain in which they feel confident (an auto mechanic in dealing with a car; a housewife in dealing with the home) (Thoits, 1995). Coping lends itself to behavioral interventions. It can be learned and taught. Both explaining and intervening are goals (Folkman & Moskowitz, 2004).

Emotions play a prominent role in the coping process. Emotions are short-lived, mental-physical phenomena that convey important cues to the

individual about his/her relationship to a changing environment. Emotions represent a repository of both learned and innate influences that acquaint the individual with the stressful nature of a situation and opportunities to manage it (Green, 2000). When an individual first perceives a situation which represents a challenge, loss or threat to significant life goals, the subsequent negative emotion may be intense. Perhaps one of the first objectives in the coping process is to manage one's own emotions in order to formulate a response. Emotion-focused coping may be beneficial when the problem is not solvable or when the emotion experienced is extreme. Emotions are embedded throughout the coping process: alerting the individual to the fact that something is amiss, preparing to respond, shaping the actual response, appraising new developments and reviewing the outcome. Emotions focus the attention of the individual in a compelling way (Hobfoll, Spielberg, Breznitz, Figley, Folkman, Lepper-Green, Mieichenbaum, Milgram, Sandler, Sarason, & van der Kolk, 1991).

The measurement of coping has evolved over the last 50 years. In the 1970s and 1980s, coping usually was assessed by presenting the respondent with a checklist of thoughts and behaviors. The respondent identified having used one or more items on the checklist to negotiate a past situation deemed to be stressful. Responses were given either as yes/no or were indicated on a Likert scale. Problems with this approach include the unreliability of a respondent's recall as well as the fact that a checklist has limitations in terms of describing the coping process. Also, the same behavior may be

categorized differently, depending upon when it happens in the coping process. Momentary assessments closer to the time of the stressful situation may avoid problems associated with unreliable recall but miss the extent to which the respondent later reflects upon the situation in order to come to a meaningful understanding of it (distal as opposed to proximal outcomes). Later recall may reflect the respondent's current understanding of a past stressful situation. To the extent that this understanding endures, it may be associated with future coping behavior. Narrative approaches may come closer to describing the actual coping process than a checklist, which through suggestion may introduce bias (Folkman & Moskowitz, 2004).

Meaning-based coping has been added to the dyad of problem- and emotion-focused coping. Individuals may cope with a stressful situation by constructing a personally meaningful narrative of it. Meaning-based coping is associated with the goals, values and beliefs of the individual and may be particularly useful in cases in which the situation does not yield to total solutions, such as chronic stress. Finding a way to make the situation meaningful may generate positive emotions that help replenish coping resources for subsequent coping. In one study, a group of chronically ill men reported more enjoyment of life than a healthy control group. Positive emotions emerge from making a connection between a stressful situation and the sources of meaning in one's life. Within the domains of meaning-based and problem- and emotion-focused coping, a repertoire of coping responses may offer the individual the best option for responding to

the unique character of each situation deemed to be stressful (Folkman & Moskowitz, 2004).

Appraisal is a concept central to the coping process. It is the evaluation by the individual, not the observer, of the nature of the situation and of what might be thought or done in a particular situation. Appraisal reveals the rationale for, and the degree to which, an individual defines the situation to be stressful. For example, the perceived seriousness of a crime shapes the victim's response to it. In appraisal, the individual makes a judgment of meaning about the situation in a way that shapes coping choices, coping effort and the outcome. Primary appraisal involves an initial assessment of the situation as a threat, loss or challenge. Secondary appraisal focuses on identifying thoughts and behaviors that may be useful in the situation (Green, 2000). In identifying a course of action, individuals in one study prioritized skills. Health, stamina and energy also were included in determining a course of action (Dienstbier, 1989). Individuals who had available to them a range of coping responses that they could apply to a variety of situations experienced less emotional distress. Passive coping (a minimal response with few or no coping strategies) may be effective with chronic stress, but not acute events (Thoits, 1995).

Coping models reveal areas of agreement and disagreement regarding the nature and significance of elements of the coping process. For example, coping models vary in the emphasis they give to prior factors such as individual and social resources and personality, factors that evolve over

the life span. Various coping models find common ground in specific areas: people engage in coping behavior for numerous reasons, including to deal with their problems and regulate their emotions; the appraisal process shapes how an individual responds to the situation; and personality and social resources shape the appraisal process (Folkman & Moskowitz, 2000).

Coping is rooted in a desire to exert control over one's situation. Individuals will attempt to alter a stressful situation more to their liking (primary control). Because skills and abilities evolve over the life span, the individual needs to adapt current skills and abilities to the current environment. The process of adaptation includes the possibility of failure of primary control in a way that threatens the individual's locus of control, resourcefulness and self-efficacy. In such cases, individuals alter their thinking (secondary control) relative to those areas they are unable to control so as to compensate for the failure of primary control. By re-establishing a domain over which one has influence, secondary control helps the individual to re-establish primary control. The need to respond to a failure of primary control is all the more necessary due to the moderate overestimation of control that is a characteristic of adaptive functioning in adulthood. Elders may acknowledge physical and psychological decline in others more readily than they do in themselves in a manner that suggests an attempt by the individual to preserve a semblance of primary control (Heckhausen & Schulz, 1995).

One coping model relevant to coping over the life span describes the

coping process in terms of selection, optimization and compensation. Selection pertains to choosing a goal. Optimization focuses on the means to achieve the goal, and compensation involves the selection and application of alternatives when the chosen means do not lead to the intended goal (Baltes & Staudinger, 2000). Compensation as a way to maintain, recover and enhance functional capabilities becomes more important with age due to biological and social constraints. Especially prevention and maintenance are useful in forestalling negative declines that may occur in later life (Schulz & Heckhausen, 1996). Living well requires effective coping, especially in later life.

With regard to the situation of elders, there is evidence from one study that individuals selected goals appropriate to their resources, and this selection was positively associated with subjective well-being (Diener & Fujita, 1995). While primary control remains stable in later life, secondary control increases. The preference of elders for independent living reflects this desire to maintain primary control. Financial hardship may be distressing to elders in part because it reduces primary control. Similarly, involuntary retirement is associated with illness, depression, a lower level of physical function and a difficult adjustment to retirement. Activity restrictions strongly predicted depression among elders (Heckhausen & Schulz, 1995).

Flexible goal adjustment remains a hallmark of aging. Adults faced with irrevocable life changes pursue the path of adjusting their emotional response to those changes. The failure or delay in compensating for a loss of

primary control through secondary control is associated with demoralization, distress and depression. Individuals demonstrate a remarkable ability to adapt in ways that optimize primary control (Heckhausen & Schulz, 1995).

One scholar elaborates upon a coping theory that builds upon the history of coping research and in particular ways diverges from it. He characterizes coping as the "thinking, feeling or acting so as to preserve a satisfied psychological state when it is threatened" (Snyder, 2001, page 4). Personality and situational factors interact in shaping the coping response. While coping has the purpose of reducing the noxiousness of a stressor threatening a satisfied psychological state, it may not be conscious or effortful. Removing the criteria of effort and consciousness from the characterization of coping avoids the vagueness of definition of these two concepts and the need to designate threshold levels above which an individual could be said to demonstrate a coping response (Snyder, 2001).

The emphasis in coping research over time has shifted from a focus upon situational factors to that of individual differences. Importantly, coping research focuses upon both the strengths and weaknesses of individuals in a manner particularly applicable to the situation of elders. Of the non-psychological variables such as age, socioeconomic status, education, marital/relationship status, gender, health, etc., socioeconomic status, income and physical health emerge as the most prominent variables to be positively related to beneficial coping outcomes (Snyder, 2001).

How effective is coping? Coping research and advocacy continue in

the belief that in ways that are appropriate for a specific cultural context, particular responses to a given situation will promote well-being and reduce stress. Conveying these responses to others may help them manage stress more effectively in their lives. The difficulty is in measuring effectiveness. Measuring effectiveness requires focusing upon the degree to which a response is successful in addressing a particular situation that itself is evolving. Any evaluation of the effectiveness of a response depends on the fit between a coping response and the situation relative to achieving a desired outcome. Outcomes are significant to and are chosen by the individual, though some outcomes may be quite generic, such as managing the problem and reducing stress. Other chosen outcomes may include reducing emotional distress, retaining an independent lifestyle, maintaining one's self-esteem and managing social interactions. Effective outcomes may emerge immediately or at a distant moment in time (Folkman & Moskowitz, 2004).

Adaptive and Maladaptive coping

The adaptive-maladaptive dichotomy is well-established in coping research. That the choices facing an individual include dealing with the problem or seeking ways to evade it has roots in theories of defense, behavioral and phenomenological approaches to conflict, as well as health psychology One author concludes that in general avoidance is not adaptive; rather, avoidance usually makes things worse for the individual involved (Snyder, 2001).

Theoretical foundations: The Psycho-Social Coping Theory (PSCT)

The Psycho-Social Coping Theory provides the theoretical foundation for the current study. This theory contends that coping is inherently adaptive and creative. It can be learned and taught. Coping is focused on the purposive use of resources. A process-based approach to coping is fruitful for understanding and ameliorating the situation of groups and individuals (Dussich, 2006).

The PSCT describes the process by which people cope with problems in order to reduce stress. The theory is behavioral, dynamic, and comprehensive in scope. The key elements in PSCT are the Repertoire, the Problems, the Coping Processes, and the Products. The Repertoire is the accessible collection of problem-solving skills that an individual may bring to bear in order to resolve the stress of life strains. The Repertoire is supported by time and is composed of an individual's psychic, social, and physical assets. Inputs in the coping model are problems that disturb an individual's equilibrium. The Coping Process is composed of four sequential elements: prevention, preparation, action, and reappraisal. The product or result of the coping process is the elimination, reduction, or retention of stress (Dussich, 2006). Key theoretical source documents for the PSCT are included in Appendix 1.

Coping is a relevant strategy for dealing with the problems that elders face to the extent that the purposive action of an elder alleviates

stress. The multi-faceted nature of life challenges provides numerous opportunities for an individual to act in a manner that may improve his or her well-being (Tinetti, Allore, Araujo, & Seeman, 2005). More broadly, social engagement plays an important role in successful aging, alongside other factors such as health, psychological well-being, and role integration (Crosnoe & Elder, 2002). These domains provide elders with numerous opportunities for addressing their particular life situation.

A more recent focus in coping research is the field of dyadic coping. Dyadic coping acknowledges that whatever the cause of the stress that initiates coping efforts, the coping process affects not only the individual concerned but the partner as well. As such, meaningful insights about the coping process may be gleaned at the level of the dyad, or pair of individuals who pool their efforts to reduce stress, which also may be felt by the partner. Due to the sizeable demands placed upon the caregivers of Alzheimer's patients, Mary Mittelman initiated counselling sessions for couples at New York University. She planned to accommodate 100 couples, but only 26 couples signed up, ostensibly because the healthy partner was not ready for candid discussions about the current condition and prognosis of the partner with Alzheimer's. Clearly, the adaptive-maladaptive dichotomy may be appropriate to describe the response of partners as well to the challenges of a stressful situation (Gross, 2007a).

Coping variables

Sociability in humans and its role in coping have a long history. It has been theorized that forming social groups is itself a coping response to the challenges of the physical and biological environment. The perceived benefits of cooperation in controlling the physical and biological environment included protection from predators, control over temperature, and food acquisition, storage and consumption. The rewards stemming from their social nature (status, power, sex, comfort and health) increased the fitness of humans, thereby contributing to more successful reproduction and to longer lives (Carey & Judge, 2001). Additionally, broad social involvement is protective against decline in cognitive function. Longitudinal studies are addressing the relationship between sociability and various health measures, but it is reasonable to suppose that the relationship is reciprocal (Cornwell, 2009).

The family is a prominent social unit. Elders in the role of grandparents have helped to raise grandchildren, thereby enhancing the survival of the grandchildren and reducing the costs to the parents of reproduction and parental care. Lowering these costs makes for healthier parents, which serves to increase their longevity and, thus, the likelihood that they too will contribute to the well-being of their descendants. The role of grandmothers in helping to raise their descendants means that post-menopausal years are not un-reproductive. Certainly, developments in science, engineering, and medical technology have increased the longevity of humans in many countries. The evolutionary basis for longevity that is

rooted in the social proclivities of humans, however, is much older and, arguably, facilitated the later developments that have become a normal part of our daily lives (Alvarez, 2000).

The present study defines sociability in two ways. Social capability emphasizes communication and interpersonal interaction. Relational affinity emphasizes a comfortable if not close connection with others. Because communication is a means for achieving numerous goals, social capability contains an instrumental aspect that is not included in the more relationship-oriented variable of relational affinity.

Being sociable is culturally learned behavior, and elders, as an age cohort with a specific history, would be expected to exhibit social behaviors consistent with their history. One study in the United States found elders to be uncomfortable with closeness, exceedingly self-reliant and dismissive of attachment (Magai, Cohen, Milburn, Thorpe, McPherson, & Peralta, 2001).

Relational affinity potentially has numerous implications regarding how well an elder is able to address stressful life situations. An assessment of the character of care provided by 252 daughters and daughters-in-law and their husbands who resided with and cared for an elder hypothesized that those who were caring for their own parent would provide more and better care. This hypothesis was not supported. Rather, the character of the relationship that the caregiver, whether offspring or in-law, had with the elder was consistently significant in determining the quality of care (Peters-Davis, Moss, & Pruchno, 1999). Moreover, the character of the

relationship that an elder has with informal caregivers such as offspring and in-laws serves to mediate a caregiver's sense of overload and depression (Yates, Tennstedt, & Chang, 1999). Social, outwardly engaged behaviors are associated with positive affect in Alzheimer's patients (Lawton, Vain Haitsma, & Klapper, 1996). As opposed to the instrumental character of social capability, elders prioritize the emotional satisfaction to be found in social relationships that offer a tight-knit context of trust and unconditional support which can be drawn upon to manage a personal crisis (Cornwell, 2009).

Perceived needs being met

One way to put the variable of perceived needs being met in context is to assess the situations of elders when needs are not met. The findings from cross-sectional analysis of the National Health Interview Survey's Supplement on Aging was weighted to represent the population aged 70+ in the United States. Results indicate that of those needing assistance performing one or more activities of daily living, one in five stated that they received inadequate assistance, ranging from eating (10%) to being transferred (20%). Having one or more unmet needs was linked to lower household income, difficulties with more than one activity of daily living, and living alone. Of those with unmet needs, half reported a negative consequence of that unmet need such as being unable to eat when hungry (Desai, Lentzner, & Weeks, 2001).

Selective application of resources

This variable focuses on a key, evaluative judgment in the appraisal process: which resource, how to bring it to bear, and toward which end? The selective application of resources potentially extends to acknowledging when one's resources are insufficient, and asking for help becomes necessary (Snyder, 2001).

Social support

Social support contains a number of dimensions that give it a broad range of import and application. Tangible support reflects assistance in meeting daily life needs. Affection support measures the extent to which the elder receives affection. Positive social interaction focuses on the opportunities an elder has to relax and have fun with others. Finally, emotional or informational support indicates the degree to which the elder has someone to turn to in time of crisis, for information, or to discuss issues of personal significance to the elder (Gadalla, 2009).

Operationally, the presence and character of support is defined from the point of view of the recipient rather than from the intentions of the provider. The perceived character of support is a result of psychological processes that may indicate, for example, improvements in levels of social support, independent of changes to the environment or in the role of the elder. A considerable body of psychological research focuses on the emotional import of relationships but focuses less specifically on social integration of

social support. Similarly, while sociology may focus on the character and extent of social support, it may overlook the emotions involved and the subjective appraisal of support. In a manner that may facilitate an understanding of social support, symbolic interaction specifies that relationships are developed, organized and maintained through obligations, roles and commitments (Schnittker, 2007).

Social support is negatively correlated with distress in victims (Cornijs, Penninx, Knipscheer, & van Tilburg, 1999). Those elders with a lower level of emotional well-being had an unequal ratio in the number of hours of support that they provided to others compared to the number of hours of support that they received (Keyes, 2002). Feelings of loneliness following bereavement are reduced in the context of confiding relationships, not more superficial relationships (Schnittker, 2007). A higher level of perceived social support mitigates the adverse impact of a negative mood following a stressful development (Atienza, Collins, & King, 2001).

Rather than an objective level of social support, the perception of social support emerges as a significant variable in numerous studies. This perception includes both the quantity and type of support enjoyed, as well as its sufficiency to meet the need. How the elder perceives the character of social support was the focus of an investigation drawing upon data from the Aging in Manitoba study of 1,267 individuals, aged 69-101. Those elders with a high evaluation of their social identity, a variable referred to as collective self-esteem, reported fewer chronic health conditions and a higher level of

perceived health, despite a low level of perceived situational control (Bailis & Chipperfield, 2002).

Social support, rather than being a function of a particular social context that is passively doled out to individuals, is molded and accessed by the individual. The intentional acquisition, maintenance, alteration and discontinuation of relationships within one's social network is associated with subjective well-being (Lang, 2001). The character and amount of social support that an elder draws upon in response to a problem reflects an elder's decisions and behavior and, as such, represents a coping resource that an elder may shape according to perceived current and/or future needs. This study assesses the level of perceived social support ("I know people who will help me if I need them,") in a manner that suggests tangible, informational or emotional support. As mentioned earlier, asking for assistance is an acknowledged path for coping with a problem (Snyder, 2001).

Elders act in ways that develop or maintain their support networks. Elders with few living relatives are more likely to perceive their relationships with these relatives as close and non-problematic in nature (Fingerman & Birditt, 2003), reflecting the decision of the elder to preserve social ties to kin. That elders actively develop and maintain their social networks suggests that the quality and extent of social support is in line with what elders desire or believe is possible. Demographic trends point to the probability that elders will spend at least some of their later years living alone. Furthermore, loneliness in American society may be concentrated

among people in their later years. However, most elders who live alone do so of their own accord, they state that they are satisfied with their living arrangements, and they decline opportunities to develop new connections with others (Schnittker, 2007).

Two variables related to social support, the combination of helpers who coordinate their efforts and co-residence with a helper, emerged as the most significant coping resources of disabled, community-dwelling elders. This network of assistance was more substantial for married than for single persons (Boaz & Hu, 1997).

Elders form their notion of the character and extent of social support through their understanding of the local social context. Elders living in deteriorated neighborhoods, especially those elders who lived alone, had lower expectations of social support than elders living in better maintained neighborhoods (Thompson & Krause, 1998).

Perceived resourcefulness

An elder's individual resources and strategies for coping mediate the relationships between stress and hassles and two types of function, instrumental activities of daily living (IADL) and physical activities of daily living (ADL) (Dunkle, Robert, Haug, & Raphelson, 1992). The Longitudinal Aging Study Amsterdam, initially assessing 3,107 elders in 1992, found uniquely among the coping variables measured, that stable or increasing resourcefulness enabled elders to experience a higher degree of life

satisfaction, despite a decline in function, compared to elders with declining levels of resourcefulness. Resourcefulness enabled some elders to maintain a degree of well-being which exceeded what objective criteria (function and health) would suggest. Resourcefulness provided elders with psychological resilience and helped them adapt to stressful life situations, with the result that they achieved a higher degree of well-being. Resourcefulness also had a protective effect against depression that may emerge with chronic conditions such as disability or disease (Jonker, Comijs, Knipscheer, & Deeg, 2009). Self-referral by elders for services is associated with a lower degree of formal service use because those able to access services on their own demonstrate an ability to cope, which is associated with a reduced need for formal services (Barker, 2000).

In a study designed to assess factors related to the onset of functional dependence, the separate and combined contribution of precipitating events (measured in terms of emergency hospital admissions) and a measure of baseline vulnerability to developing functional dependence (age, cognitive status and physical performance) were found independently to predict future functional dependence in a group of 1,850 elders, aged 72 and over (Gill, Williams, & Tinetti, 1999).

Elders who enjoy a high degree of physical and mental capabilities and are rich in social and personality resources function better in daily life and suffer from fewer problems associated with aging than do elders who are not as generously endowed. A four-year study of participants in the Berlin

Aging Study found that the more highly functioning group of elders invest more social time with family members, reduce the diversity of their activities to those which are most important to them, take regular and longer naps during the day and demonstrate a change during the course of the study in how they invest time across activity domains. These findings lend support to the contention that resource-rich elders, more so than other elders, engage in strategies of selection, optimization and compensation in their everyday lives (Lang, Rieckmann, & Baltes, 2002). Coping theory maintains that perceived control of a situation will elicit instrumental, active, problem-focused coping. That is, individuals who believe they have the resources to address a problem are more likely to do so (Folkman & Moskowitz, 2004).

View of the aging process

In a longitudinal study of 433 participants aged 50 and over, those who had a more positive view of the aging process enjoyed a higher level of self-rated health. Subsequent analysis reveals that these results are mediated in part by perceived situational control (Levy, Slade, & Kasl, 2002).

How an elder negotiates life transitions to a new residence or the loss of a spouse may impact the elder's view of the aging process. For example, making the transition to retirement within the last two years is associated with a positive outlook on life among men, but being continuously retired is associated with a risk of depression (Kim & Moen, 2002).

Future orientation

Future orientation involves planning and preparing for an expected development. To the extent that the expected development is fearful or negative in nature, preventive or preparatory action may be taken to reduce the likelihood of the development or to mitigate its effects. If the expected development is highly anticipated, then it may serve to motivate coping efforts so as to achieve a longed-for, future state. As such, future orientation is an adaptive coping response.

In a 4-year sample of 206 elders, 70-100+ years in age, 72% added new hopes and 53% added new fears in a manner that accorded well with changes in physical and functional health during the course of the study (Smith & Freund, 2002). This finding reveals that elders form and adjust their conceptions of their future in line with their present understanding of their life situation.

Perceived adaptability

The adaptability of humans reveals itself in the variety of behaviors, opinions, lifestyles, etc., on display in society. This adaptability points to a general aversion to ambiguity: people, if given the option, tend to choose a situation with a high probability of a low return than a low probability of a high return. Coping theory highlights time as a resource in the coping milieu. In an evolutionary sense, most decisions related to survival had to be made quickly, both due to the character of the situation as well as to minimize

costs related to the decision-making process (reflection, time and energy, fleeting opportunities) so one would expect humans to reveal a bias toward quick, if incompletely considered, responses. Culture (e.g., the proliferation of bitter and spicy foods, which runs counter to uncultivated tastes) has come to shape intuitive preferences in a way formerly dominated by preferences shaped by the natural environment (Boyer & Heckhausen, 2000). Individuals can make choices within the context of the continued relevance of evolution and culture.

To the extent that the evolutionary millennia have shaped our adaptability, how do we accommodate an awareness of this heritage? As precursors to action, humans focus on numerous elements: contingencies between behavior and external stimuli, a preference for situations which allow for greater personal control, situational control, self-efficacy, a tendency to repeat behaviors that yield desirable outcomes, and an asymmetric emotional response to negative and positive developments. As a self-reflective species, humans may accommodate this evolutionary legacy by pondering one's deficiencies and acting in a manner that mitigates stress (Boyer & Heckhausen, 2000).

Adapting to a life transition such as the death of a loved one, an accident or a new residence may pose a formidable challenge to an elder. Changing residence may indicate frailty or the increased need of an elder for services (Barker, 2000). The emergence of a cognitive impairment may complicate formerly intact adaptive skills and is a risk factor for elder abuse

and neglect (Lachs, Williams, O'Brien, Hurst, & Horwitz, 1997). Wisdom may be characterized as a quality of reasoning whereby an individual is able to deal with practical problems based upon experience and an ability to cope.

A range of adaptations may be pursued by the elder to achieve disparate goals, depending on the activity domain and its importance to the elder (identity salience). An investigation of 286 elders living with a chronic disability found evidence of compensating for loss, optimizing performance, accepting limits or restrictions upon activities, and soliciting assistance from others in the domains of personal care, mobility in the home and community, management of a household and continued pursuit of valued activities (Gignac, Cott, & Badley, 2000). The picture of adaptability to emerge is of a factor that is contextual, dynamic, individually determined, and flexible in application.

Awareness of the problem regularly precedes coping efforts. Compensation strategies targeted at improving memory were used more frequently in adults, aged 55-94 years, who perceived that they had memory problems (Frias, Dixon, & Backmanc, 2003).

Adaptability has a protective effect against the link between disability and depression (Ormel, Rijsdijk, Sullivan, van Sonderen, & Kempen, 2002).

Situational control

Also termed mastery or an internal locus of control, situational

control refers to the belief that one is able to direct the course of one's life. A low level of situational control is associated with a high level of distress in both victims and non-victims (Cornijs, Penninx, Knipscheer, & van Tilburg, 1999). Situational control is positively correlated with mitigating depression and the adverse effect of disability on depression (Jang, Haley, Small, & Mortimer, 2002). Data from the Berlin Aging Study affirmed that situational control over desirable outcomes is associated with a high level of emotional well-being and that an absence of control is an emotional risk factor among elders (Kunzmann, Little, & Smith, 2002). At least one study found a statistically and substantively significant negative correlation in a longitudinal study between the passage of time and situational control. Mental well-being also emerged as a major predictor of situational control (Wolinsky, Wyrwich, Babu, Kroenke, & Tierney, 2003). Situational control may have a protective effect on well-being of elders whose health is declining (Jonker, Comijs, Knipscheer, & Deeg, 2009).

The contribution of social support to the psychological well-being of elders was mediated through interpersonal agency (obtaining desired goals by interacting with others) and perceived situational control (Smith, Kohn, Savage-Stevens, Finch, Ingate, & Lim, 2000). Social support and situational control may be reciprocal; that is, higher levels of social support, particularly support that is tangible and emotional in nature, enhance an elder's situational control, and a strong sense of situational control prompts an elder to identify and draw upon avenues of social support (Gadalla, 2009).

In a Canadian study of 1,399 elders aged 65 years and older, higher income predicted better health and more social support, which in turn predicted higher situational control. Situational control fully mediated the relationship between physical health and stress for men and women. For elders residing in assisted-living facilities, a strong sense of situational control reduced the potentially depressive effects of functional disability and marginal, self-rated health. Conversely, advanced age, a lower level of education, marginal, self-rated health, little satisfaction with social support and being African American in the United States were related to lower levels of situational control. Across the lifespan, women have lower levels of situational control compared to men, and the gap widens with advancing age. Living with a partner was associated with higher levels of situational control for men, but not for women. It has been suggested that the higher prevalence of depressive symptoms in women compared to men is a result of lower levels of situational control in women (Gadalla, 2009).

An unresolved debate among researchers concerns whether situational control is a fixed personality trait or a characteristic that arises due to events in one's life. The overriding focus in both gerontology and coping research is to identify and apply teachable capabilities for addressing modifiable physical and mental conditions (Tinetti, Allore, Araujo, & Seeman, 2005).

A potentially significant issue in understanding the impact of coping variables in the lives of elders is whether coping variables represent a stable

or varying component in an elder's response to stressful situations. One study to measure variations in levels of situational control among the old old found that greater variation is linked to declines in health and well-being and, conversely, that stability in control is protective of health (Jonker, Comijs, Knipscheer, & Deeg, 2009).

Stereotype of elders as vulnerable

Vulnerability to adverse outcomes in a broad range of life situations is associated with a lower degree of adjustment of elders to the aging process. For example, older workers who perceived obstacles to a job or career change were more acutely focused on age-related concerns regarding employment and financial security and revealed a poorer psychological adjustment both to their current, plateaued career and to their own aging (Bailey & Hansson, 1995).

Emotion-based coping

In a study of people, aged 13-99 years of age, designed to assess the nature, intensity, and duration of an emotional response to a person in one's social network, older participants were less likely to describe anger and other, intensely aversive responses. Women experienced distress more acutely and for a longer duration than did men (Birditt & Fingerman, 2003). Especially in managing stress in situations that are not amenable to change such as chronic illness, dealing with the emotions associated with the

stressor represents an adaptive response to the problem and re-establishes an elder's perception of being able to manage one's life situation (Snyder, 2001).

Worry/anxiety

While generally thought to be a maladaptive coping variable, the salutary role of worry also has been acknowledged (Marmor, 1962). Worry may focus the attention of an individual in a manner that leads to progress in addressing a specific problem, thereby reducing stress. Anxiety related to perceived memory problems is the trigger leading elders to engage in adaptive coping behaviors. Regardless of whether the coping efforts result in a change in the stressful situation, the sheer act of coping contributes to elder well-being (Verhaeghen, Geraerts, & Marcoen, 2000).

One issue is whether the processes of aging per se exert a discernible impact on affect states. An assessment of elders, aged 70-100+ years in age, found no specific effect of age on affect state. The most significant variables related to affect states in participants were general intelligence and personality (Isaacowitz & Smith, 2003).

Stress

An assessment of middle-aged (41-43 years of age) and older adults (61-63 years of age) revealed that an attempt to reduce stress was the best fit in a structural equation model examining the interrelationships of stress, social resource variables and well-being, with a particularly strong effect of

stress reduction on well-being (Martin, Grunendahl, & Martin, 2001).

The perceived nature of stress means that individual differences will emerge regarding the nature of stressors and the degree of stress experienced. While it is important to identify differences across individuals regarding stressors, the more significant issue regarding stress is how a stressor is construed by an individual. Individual attributes, life history and life situation will impact how an individual construes a stressor. Stressors that are closely related to significant life areas likely will be perceived as more stressful. A stressor related to several life areas may be perceived as more stressful than a stressor related to a single life area. Stressors also vary in the degree to which they abide over time, thus affecting the coping response over the short- and long-term. Stressors that pose a more severe threat to a satisfied psychological state should elicit more extensive coping, though a severe stressor is not required to initiate coping. Rather than focusing on major life events as stressors, coping researchers largely have chosen to focus on hassles in daily life and chronic strains (Snyder, 2001). This more inclusive approach avoids having to define the level of severity of a stressor as part of assessing the coping response. Transient or acute stress may enhance cognitive functioning, while chronic stress may prove detrimental. An inverted U may describe the relationship between stress levels and performance; performance peaks at an optimal level of stress and declines away from that level (Rosnick, Small, McEvoy, Borenstein, & Mortimer, 2007).

Stressors also vary in their level of ambiguity. Ambiguous stressors are difficult to identify and to appraise as a source of stress. Those who worry more report more and higher levels of stress. Cognitive decline may precipitate difficulties in one's living situation and lead to higher levels of stress (Rosnick, Small, McEvoy, Borenstein, & Mortimer, 2007).

There is some indication that older men experience lower degrees of stress. While general life hassles and health problems increase by age, stress ratings do not increase. Even after extensive questioning, one quarter of old-old men reported having no problems and engaged in a lower degree of coping efforts when they did have problems (Aldwin, Sutton, Chiara, & Spiro, 1996). Maturational changes in the stress appraisal process, from episodic to chronic, may explain the disconnect between an age-related increase in difficulties of life and health issues on the one hand, and a decrease in perceived stress and coping efforts among males in later life (Boeninger, Shiraishi, Aldwin, & Aron, 2009).

Stress may manifest itself in the form of a Post-Traumatic Stress Disorder (PTSD). PTSD is a significant life complication defined in the Diagnostic Statistical Manual of Mental Disorders (DSM-IV) using two criteria: exposure to a life-threatening event and a very strong emotional reaction (horror, fear or helplessness) to the event (American Psychiatric Association, 1994). In an assessment of 436 male members of the military, aged 59-92, who had served either in World War II or the Korean war, the lifetime prevalence of exposure to a traumatic event averaged 1.73 traumatic

events. Fully 70% of participants reported exposure to a traumatic event unrelated to their military service experience in war zones. Also, 14.2% reported having experienced a traumatic event in the year prior to the gathering of data. Survey responses indicate that 4% of elder respondents fulfilled the criteria for PTSD, even though the respondents in the Normative Aging Study were selected on the basis of good physical and mental health. The passage of time increases the opportunity (a greater number of years lived) to be exposed to a traumatic event. From a demographic perspective, an assessment of veterans is more representative of the cohort of older males than at first one might suppose because historically, military service was widespread among this cohort (Schnurr, Spiro, Vielhauer, Findler, & Hambien, 2002).

Perceived helplessness

Perceived helplessness is likely to increase the severity of PTSD symptoms. Nearly 90% of those suffering from PTSD six months after being the victim of a crime reported feeling horror, fear or helplessness when assessed within a few weeks of the crime; only 44% of respondents who did not develop PTSD reported a similar emotional reaction to the crime (Schnurr, Spiro, Vielhauer, Findler, & Hambien, 2002).

Conflicts with others

A longitudinal study conducted over the course of 6 years of negative

interactions that are part of an elder's life situation reveals the interactions to be quite stable. Insofar as these relationships may be difficult for the elder to terminate, the negative interactions arising from them represent chronic stressors. Results indicate that elders who have interpersonal conflict in one relationship are likely to have similar problems in other relationships, pointing potentially to the role of the elder in fomenting these conflicts (Krause & Rook, 2003). Indeed, greater behavioral disturbance of the elder and an elder's moderate to severe functional impairment are two characteristics of the elder which are associated with higher depression scores among informal caregivers (Meshefedjian, McCusker, Bellavance, & Baumgarten, 1998).

Families and social groups may be characterized by their approach to resolving conflict. An assessment of 211 multi-generational families caring for an elder with Alzheimer's disease found that families employing a focused approach to making decisions and a positive orientation to settling conflicts offered more help to the elder than those families who did not (Lieberman & Fisher, 1999).

Others' appraisal of an elder's helplessness

For elders with at least a mild degree of disability, the appraisals of elders and caregivers regarding the character and severity of an elder's disability may show poor agreement, with the caregiver inclined to overestimate the elder's degree of disability, especially regarding memory problems and

confusion (Lawrence, Tennstedt, & Almy, 1997). As stated earlier, an elder may underestimate one's own functional limitations in order to maintain a semblance of control over the course of one's life. This poor agreement between an elder and caregiver in appraising the severity and character of an elder's disabilities may represent a source of stress to the elder.

Individual characteristics

Respondent characteristics measured in the questionnaire include gender, age, marital and disability status, income, household size, name of senior center, occupation, race, neighborhood crime level, and life satisfaction. Each of these variables may have some relationship to an elder's vulnerability to victimization. Insofar as the potential for victimization varies by location within the Phoenix metropolitan area, the location of the senior center in a specific neighborhood represents, qualitatively and quantitatively, a source of vulnerability for individual elders. Specifically, age, race and poverty have been identified as risk factors for elder mistreatment as reported to state Adult Protective Service (APS) agencies (Lachs, Williams, O'Brien, Hurst, & Horwitz, 1997). In the United States, race plays a significant role in the association of situational control with age, perceived health and religiosity (Jang, Borenstein-Graves, Haley, Small, & Mortimer, 2003). Regarding life satisfaction, a greater overall level of activity, whether the activities were social, productive or solitary, contributed to an elder's life satisfaction (Menec, 2003).

Numerous studies focus on the association between demographic variables and coping outcomes. A sample of 4,034 Germans, aged 40 to 85, reveals that being younger, having better self-rated health, higher income and education, less loneliness, and greater hope, is negatively associated with physical decline and social loss and positively associated with continued personal growth (Steverink, Westerhof, Bode, & Dittmann-Kohli, 2001).

Education represents society's and an individual's commitment to develop particular and general skills in order to be able to respond more effectively, both individually and collectively, to life's opportunities and challenges. Socio-economic status as measured by education and occupation generally correlates positively with intelligence. Education, health, and intellectual activity proved to be significant predictors of memory function which removed social class as a factor. Locus of control, emotional state, and life stress did not predict subjective and objective memory. Educational differences among elders reveal a pronounced variation in problem-solving and incidental learning (Arbuckle, Gold, & Andres, 1986).

An elder's living arrangements (household size, marital status) may impact an elder's ability to respond to the physical, cognitive and emotional challenges of later life. Living with a partner is positively correlated to social support (Gadalla, 2009). An analysis of cross-sectional data gathered as part of the Health and Retirement Study reveals that married couples living alone or with children enjoy the highest levels of functioning. Single adults in complex households show the lowest levels (Waite & Hughes, 1999).

Disability is a decline in ability or the inability to perform basic self-care tasks associated with independent living (Yang & George, 2005). Impairment is an alteration at the system or organ level. Disability is more closely related to function than is disease and often is more readily assessed (Tinetti, Allore, Araujo, & Seeman, 2005). Disability, due to its connection to function as a health outcome may be more important to elders than disease because of the impact that disability has upon daily life. Moreover, treating disease may not address the issue of improving functional performance, which may be unrelated to the disease.

In one study, the impact of five types of disabilities (lower extremity, upper extremity, hearing, vision, and affect) upon performance of instrumental activities of daily living was assessed. A disability in any of the measured forms of disability except hearing was at least borderline significant in predicting future decline three years later. Lower extremity disability emerged as the most significant predictor of future functional decline. Affect was included because chronic functional disability may impact mental health. All five disabilities taken together accounted for 17-23% of the decline assessed after three years. These disabilities were chosen for assessment because they are moderately common in elders (at least 5%) and are potentially modifiable (Tinetti, Allore, Araujo, & Seeman, 2005).

Over half of all disabled persons in the United States are 65 years or age or older (Yang & George, 2005). According to the coping process as outlined in coping theory, the appraisal of the disability precedes the coping

response. Gerontological research inquires into how elders identify and manage potentially modifiable situations. The self-rated health of elders predicts mortality, perceived situational control and the application of control-enhancing strategies that are part of an adaptive psychological orientation (Menec, Chipperfield, & Perry, 1999). The appraisal of the problem by the affected individual leads to an interpretation of the problem in terms of threat, loss or challenge. This appraisal and the impact that the disability has upon a particular role domain (identity salience) shape the coping response (Yang & George, 2005).

Accomplishing a household task with a severe disability often involves receiving assistance and/or using specialized equipment. Community-dwelling, disabled adults, aged 55+, who participated in the National Health Interview Survey Disability Supplement, revealed that poor overall health/disability was associated with receiving assistance. Severe disability is associated with equipment use. The coping response to poor health/disability, especially in its more severe form, reflects an elder's acknowledged need for assistance, an elder's acknowledgment of a limited potential to achieve physiological improvement and a high desire for as much self-sufficiency as possible. In terms of coping, equipment may be tailored to the needs of the individual, it is available when needed and it helps maintain an elder's self-sufficiency (Verbrugge & Sevak, 2002). Elders who use equipment report a lower degree of unmet personal needs (Agree & Freedman, 2003). Indeed, using canes and crutches (as opposed to walkers

and wheelchairs) lowered the number of hours of both formal and informal care per week among a group of 9,230 disabled adults and reduced out-of-pocket costs for formal care. Canes and crutches in particular may help elders cope with their disability while increasing or maintaining their autonomy (Allen, Foster, & Berg, 2001).

In a study of 3,485 community-dwelling adults aged 65+, the probability of engaging in self-care coping strategies (using equipment, changing behavior or modifying the environment) increased as the severity of the disability increased, except for the most severely disabled. Receiving assistance from others supplemented rather than substituted for self-care coping strategies (Norburn, Bernard, Konrad, Woomert, DeFriese, Kalsbeek, Koch, & Ory, 1995).

Antecedent factors determining one's quality of life are either primary (physical/emotional safety, financial security, health, self-concept, self-esteem, and social engagement) or process factors, defined as personal attributes which facilitate the interpretation of the primary factors (Hunter & Gillen, 2009). Succinctly stated, there is a range of factors necessary for a good life, and then there is how an individual interprets those factors.

Elders may experience a higher number of stressors, perceive higher levels of stress, and possess fewer ways of coping with the stress compared to adults in earlier stages of life. Rather than entering one's later years with a clean slate, some elders may carry with them sources of stress from earlier years (Hunter & Gillen, 2009).

Victimization variables

Respondents provided information regarding their lifetime history of being the victim of a crime, traffic accident and natural disaster. The coping behaviors of elders following these events may be shaped by the character and degree of vulnerability of the elder. An elder may be more vulnerable due to the unique characteristics of aging (maturation hypothesis) or an elder may be less vulnerable due to prior experience with a similar disaster in a manner that enhances the elder's coping ability (the inoculation hypothesis). In a review of 160 samples of victims from different types of prominently stressful events, elders as an age group were not at an elevated risk for the adverse outcomes of psychological problems, distress, health problems, chronic life issues, or resource loss (Norris, Friedman, Watson, Byrne, Diaz, & Kaniasty, 2002).

Criminal victimization

Elders in the United States were victims of non-fatal violent crime (rape, sexual assault, robbery and aggravated and simple assaults) at a rate that is one-twentieth the rate of persons age 12-24 (4 victims per thousand persons age 65 and over versus 82 victims per thousand persons age 12-24). The rate for property crimes (household burglary, motor vehicle theft and theft) against elders was one-fourth the rate of the youngest age group (93 per 1,000 households headed by an elder versus 406 per 1,000 households

headed by an individual 12-24 years of age. As a proportion of total crime against elders, theft represents approximately one in five crimes against elders, while it accounts for one in 33 crimes against individuals age 12-49. Elders were victimized by purse snatching/pocket picking at approximately the same rate as that of other age groups. From 1993 to 2002, the property crime rate for households headed by an elder 65 years of age and over dropped by more than half (from 133 per 1,000 households in 1993 to 63 per 1,000 households in 2002). Approximately 45% of violent crime and 67% of property crime occurred at or near the residence of the elder. An elder was nearly three times likelier to be the victim of a violent crime perpetrated by one's own child than individuals 12-64 years of age (2.6% versus 0.9%) in a manner that reveals the unique vulnerability of the elder (Bureau of Justice Statistics, 2005).

The National Crime Victim Survey (NCVS) data reflected in the above figures may under-report criminal victimization actually experienced by elders in the United States. The NCVS gathers data from a representative sample of households in the United States, but it does not include data from individuals living in institutions. Also, the NCVS does not measure crimes for which elders may be disproportionately victimized, such as fraud. Identity theft was included in the NCVS beginning in July, 2004 (Bureau of Justice Statistics, 2005). Personal and household victimizations by type of crime and age are summarized in Table 2.

Table 2 Personal and household victimizations by type of crime and age, 1993-2002 (Bureau of Justice Statistics, 2005)

Rates per 1,000 households by type of crime	Age of victim			
	12-24	25-49	50-64	65 or older
Personal crimes total	84.5	38.4	15.5	5.4
Violent crime total	82.2	37.1	14.5	4.3
Rape/sexual assault	4.0	1.4	0.2	0.1
Robbery	8.4	4.2	1.9	1.0
Assault	69.8	31.6	12.4	3.2
Personal larceny	2.3	1.2	0.9	1.1
Household burglary	82.1	46.4	33.6	22.8
Motor vehicle theft	22.4	15.4	10.2	4.5
Theft	301.8	220.4	144.7	65.8

Traffic accident victimization

For elders, an important aspect of maintaining their independence is continuing to drive into their later years. From 1992-2001, drivers 65 years or age or older grew 29%. From 2005-2030, the proportion of elder driver fatalities is expected to rise from 14% to 30%. Fatality risk in a traffic accident for the age groups 70-74, 75-79, and 80-84 is 1.37, 1.42 and 2.26 times higher, compared to drivers 65-69 years of age, indicating a significant disparity of risk among elder cohorts. Elders over the age of 70 have a high crash rate per mile driven and are more vulnerable to injury. Some researchers point to 80 years of age as the threshold, beyond which elders have a particularly high risk of being involved in a crash (Bayam, Liebowitz, & Agresti, 2005).

Physiological changes among elders increase their risk of injury in a traffic accident. Faltering balance, decreased vision, loss of hearing, proprioception, decreased reaction time, muscle and bone mass contribute to

the vulnerability of elders. It is estimated that the walking speed of elders is 75% that of their younger counterparts. Cardiovascular disease, osteoarthritis, diabetes, cognitive impairment, sleep apnea, neuropathies, strokes and visual and hearing problems were recorded in a significant proportion of elder traffic victims being treated in hospitals (Abou-Raya & ElMeguid, 2010).

Eyes age in ways that make elders vulnerable to accidents and mishaps, especially at night. Rods in the back of the eye enable people to see at night, and the number of rods diminishes with age. A 50 year-old driver needs twice the light of a 30 year-old to see at night (Brody, 2007).

Regarding the issue of education as a resource which elders can use to prevent accidents, at least one study found no connection between a driver's level of education and accident involvement (Lourens, Vissers, & Jessurun, 1999). A recurring problem in characterizing traffic accident victims is the failure in the literature to distinguish between those who caused the accident and those who truly are victims of it. The term traffic accident "victim" commonly is used to refer to anyone who was in an accident (Abou-Raya & ElMeguid, 2010; Yee, Cameron, & Bailey, 2006).

Natural disaster victimizations

Research that can withstand subsequent scrutiny is difficult to carry out in the chaotic aftermath of a natural disaster. A framework which assesses the situation of victims before, during and after the disaster may be

best at clarifying the status and needs of victims. Disaster victims who are older and have a history of mental health problems, violent crime victimization or other traumatic event, have a strong emotional response to disasters or who exhibit elevated levels of post-disaster coping behaviors may be at risk for mental health problems after disasters (Freedy & Kilpatrick, 1994). Thus, the longer life history of elders increases the probability that they will have one of these risk factors for mental health problems following a natural disaster.

One issue regarding the ability of elders to cope in the face of a natural disaster is whether their prior experience provides them with an advantage in responding to the situation (the inoculation hypothesis) or whether certain characteristics of aging leave elders more vulnerable (the maturation hypothesis). The issue remains unresolved. There is some evidence that up to a certain point (exposure to 2-6 stressful events), the inoculation hypothesis is valid, but that exposure to more than 6 events may decrease one's resiliency (Carey, 2011). An assessment of the response of individuals to natural disasters in Poland, Mexico and the United States revealed that culture shapes vulnerabilities of all age groups, including elders (Norris, Krzysztof, Conrad, Inman, & Murphy, 2002).

Reaction: degree of emotional control

Individuals are able to influence which emotions they have, their timing, they way they experience them, and how they express them. Emotion

regulation is part of coping. Coping itself is focused on regulating stressful situations in a manner that may facilitate the identification and pursuit of coping strategies (Folkman & Moskowitz, 2004). Older adults demonstrate a higher degree of emotion regulation than younger people (Larcom & Isaacowitz, 2009). In part, this enhanced level of emotion control may be physiological, for the older brain responds less strongly to dopamine, a chemical messenger that conveys rewards (Nagourney, 2008).

Recovery

Recovery is the result of coping in which the individual is able to achieve a quality of life that is at least equal to the individual's life prior to the life event such as a criminal victimization, natural disaster or traffic accident that caused the stress. The PSCT posits that recovery as an end-state is achieved and may be measured by the following three conditions: the absence of major symptoms, a positive view of oneself and an ability to function in daily life (Dussich, 2006). In ways that point to the prominence of social support and social interaction, the understandings, behaviors, values and skills that are cultivated and shared within a community may provide the mutable foundation for individual recovery from a major life stressor. A recursive relationship between recovery and the individual's relationship to the community exists to the extent that recovery may be measured by the restoration of the individual's role in the community: a decrease in isolation, a restoration of prior abilities to function

in social contexts and a sense that the individual belongs (Harvey, 1996).

CHAPTER III

Hypotheses

Following a review of the literature, three categories of hypotheses were developed. The first category is only to test the psycho-social coping theory (PSCT) with two hypotheses. The second category explores coping and the aging process with three hypotheses. The third category looks at coping as it applies to managing the effects of crime, traffic accidents and natural disasters with three hypotheses, yielding a total of eight hypotheses. The hypotheses in the second and third categories (H_3 – H_8) use the PSCT as a point of reference.

Test of the Psycho-Social Coping Theory (PSCT)

Hypothesis 1 (H_1): Coping variables will sort themselves into adaptive or maladaptive categories, but not both.

Hypothesis 2 (H_2): As their level of education and social support increases, elder's perception of their resourcefulness is enhanced.

The PSCT clearly distinguishes between adaptive and maladaptive coping behaviors, so it was expected that H_1 would be supported. Similarly, education and social support represent significant resources with which elders may address stressful situations in their life, so it was expected that H_2 also would be supported. That is, elders with a higher level of education and social support were expected to perceive themselves as more resourceful.

Coping and aging

Hypothesis 3 (H_3): Among elders, the selective application of

resources (appraisal) fades over time as a factor in their perceived resourcefulness.

Hypothesis 4 (H_4): As they age, those elders who are adaptable have a greater sense of being able to manage their life situation.

Hypothesis 5 (H_5): Compared to the instrumental character of social capability, having close personal relationships (relational affinity) helps elders face the future with a positive attitude.

In line with the decreasing capabilities associated with aging, it was expected that elders would strive to reduce stress through the selection and shrinkage of domains that remain important to them. This selection of valued domains reduces the applicable areas of the appraisal process. Also, if the appraisal process itself were to become a source of stress over time to the elder, then the elder understandably would reduce its importance. H_3 was expected to be supported.

The PSCT posits that those elders who perceive themselves to be adaptable are more likely to be able to manage the stress of various life situations. It would be consistent with the PSCT for adaptability to rise in importance over time in the context of the dwindling capabilities associated with aging. H_4 was expected to be supported.

Managing stress may take many forms, and close personal relationships may emerge as a source of comfort especially in later life in the face of challenges which may not lend themselves to easy solutions. The PSCT predicts that as they age, elders will choose paths that enhance their

ability to manage life problems. In the case of H_5, I tested whether elders would choose to nurture close, emotional ties and distance themselves from seeing relationships as a means to achieve particular goals, thereby augmenting their ability to face the future with a positive attitude. H_5 was expected to be supported.

<u>Coping and victimization</u>

Hypothesis 6 (H_6): Among elders involved in a traffic accident, level of education increases the likelihood that the accident will not be their fault.

Hypothesis 7 (H_7): Assault, more than robbery, theft or burglary, diminishes an elder's sense of situational control.

Hypothesis 8 (H_8): More so for not-my-fault traffic accidents than for my-fault or undetermined fault accidents, a reaction characterized by emotional control is positively associated with a high degree of recovery.

The PSCT posits that education is a significant resource that may be used to address stressful life situations. More educated elders would be expected to act in a manner that prevents them from becoming involved in stressful situations by, in this case, causing a traffic accident, so it is consistent with the PSCT that more highly educated elders would be less likely to cause traffic accidents. H_6 was expected to be supported.

Assessing one's coping capabilities in light of the character of a stressful situation in order to devise a response remains a central component of the appraisal process. Based on the enduring impact of the encounter, those elders who have experienced assault would emerge from the

experience with a lower estimation of their ability to manage life situations than elders who experienced robbery, theft or burglary. H_7 was expected to be supported.

Causing a traffic accident may make it more difficult for elders to remain emotionally in control of the situation. Absent emotional equilibrium, it may be more difficult for the elder to identify ways to reduce the stressful effects of a traffic accident, thereby hindering recovery. H_8 was expected to be supported.

The hypotheses, the relevant variables and the statistical tools employed are summarized in Table 3.

Test of the Psycho-Social Coping Theory (PSCT)

	Variables	Hypotheses	Statistical tools
1	**All coping variables**	**Coping variables will sort themselves into Adaptive or maladaptive categories, but not both.**	**Factor analysis**
2	**Education cohort, social support, perceived resourcefulness**	**As their level of education and social support increases, elder's perception of their resourcefulness is enhanced.**	**Pearson Correlation, split sample**

Coping and aging

	Variables	Hypotheses	Statistical tools
3	**Selective application of resources, age, perceived resourcefulness**	**Among elders, the selective application of resources (appraisal) fades over time as a factor in their perceived resourcefulness.**	**Pearson correlation, split sample**
4	**Adaptability, age, situational control**	**As they age, those elders who are adaptable have a greater sense of being able to manage their life situation.**	**Pearson correlation, split sample**
5	**Social capability, relational affinity, view of the aging process, age**	**Compared to the instrumental character of social capability, having close personal relationships (relational affinity) helps elders face the future with a positive attitude.**	**Pearson correlation, split sample**

Coping and victimization

	Variables	Hypotheses	Statistical tools
6	**MFTA (My Fault Traffic Accident), NMFTA (Not My Fault Traffic Accident), UFTA (Undet Fault Traffic Accident), education in years**	**Among elders involved in a traffic accident, level of education increases the likelihood that the accident will not be their fault.**	**Pearson Correlation**
7	**Assault, RTB (robbery/theft/burglary), situational control**	**Assault, more than RTB, diminishes an elder's sense of situational control.**	**Pearson Correlation**
8	**MFTF reaction and recovery, NMFTF reaction and recovery, UndetTF reaction and recovery**	**Moreso for NMF accidents than for MF or UndetTF, a reaction characterized by emotional control is positively associated with a high degree of recovery.**	**Pearson Correlation**

Table 3 Hypotheses, variables and the statistical tools used

CHAPTER IV

Coping variable	Statement in the questionnaire

Methods

The basic goal of the questionnaire was to characterize the way elders responded to life problems. The variables used were identified in the literature as associated with adaptive or maladaptive coping behaviors. The questionnaire also sought to explore the relationship of these variables to the lifetime total of three types of victimization experienced by the elder: criminal victimizations, traffic accidents and natural disasters.

The questionnaire took shape following a review of the literature and during discussions with the author of the PSCT. Initial plans envisaged a random phone survey. While the content of the questionnaire was focused on coping-related variables, this author reviewed a K-6th grade word list, a health questionnaire (SF-36) designed for adults, the short form of the US 2000 Census, and the National Crime Victimization Survey in order to design a questionnaire that would be understandable to seniors. The considerable amount of anticipated time on the telephone led this author to solicit the participation of an associate to assist with the calling. Statements in the questionnaire for measuring 18 coping variables using a Likert scale whose values ranged from “strongly disagree” to “strongly agree” are listed in Table 4.

Perceived resourcefulness	I think I can find some way to deal with the problems in my life.
Future orientation 1	I plan activities a month or more in advance.
Future orientation 2	For important events such as weddings, vacations, and birthdays, I make plans a month or more in advance.
Social capability	It's easy for me to discuss things with other people.
Relational affinity	I relate well with others.
Worry/anxiety	I worry about my personal problems.
Perceived helplessness	I am unable to control important issues in my life.
Emotion-focused coping	I get emotionally worked up when dealing with problems.
Selective application of resources	When a problem arises, I consider the options available to me.
Perceived adaptability	I adjust well to whatever comes my way.
Perceived needs being met	I manage to meet my needs.
Conflicts with others	I tend to have conflicts with people in my life.
Perceived social support	I know people who will help me if I need them.
View of the aging process	I am up to the challenge of growing older.
Needs met with help of others	I receive help from others in order to meet my needs.
Others exaggerate an elder's helplessness	I think that people exaggerate my problems.
Stereotype of elders as vulnerable	I believe that elderly people are vulnerable to various kinds of abuse.
Situational control	I believe I can control what happens in my life.
Stress	I find living to be stressful.

Table 4 Statements in the questionnaire for measuring coping variables using a Likert scale

Information from elders who live in the city of Phoenix, Arizona, USA, was gathered during the months of January and February, 2004. Elder participants voluntarily completed a self-administered, written survey questionnaire distributed at 14 senior centers in the Phoenix metropolitan area.

The survey questionnaire was compiled in December, 2003, in Mito,

Japan. The questionnaire measured 23 variables pertaining to elder resourcefulness and 13 other variables related to the lifetime incidence of victimization and demographic measures. The design used in this study was a one-shot case study that does not control for internal validity. As such, no cause and effect relationships can be inferred.

In a series of discussions, a committee composed of a gerontologist, a practicing psychologist, and a public health nurse validated the questionnaire. They assisted in selecting conceptually accurate phrasing that would be easy for respondents to understand. Six seniors at a local senior center subsequently participated in a pre-test of the questionnaire. Visual, tactile, and auditory techniques were developed and administered during the pre-test to determine the optimal manner of presentation in order to make it easy for elders to respond to the questions.

The initial plan was to gather data through a random phone survey. Phone interviews of people exposed to a traumatic event have been demonstrated to be highly comparable to in-person interviews (Schnurr, Spiro, Vielhauer, Findler, & Hambien, 2002). However, a random phone survey proved to be unworkable, as a visit to the Survey Research Laboratory at Arizona State University demonstrated. A posited goal of 800 completed surveys was the first entry in an equation with the following constraints: In randomly dialed phone numbers, only half the numbers dialed are working numbers with voice phone service. One-eighth of the households in the Phoenix area contain a person age 60 or over, and I could

expect that only half of them would be willing to respond to questions over the phone. The resulting equation was X = 800 / (.5 x .5 x .125), where X is the number of calls I would have to make in order to obtain 800 completed surveys. In this case, X = 25,600 calls. Placing this many calls was not feasible for this study.

The researcher at the Survey Research Laboratory related the difficulties that the laboratory itself had encountered in gathering data from local elders. A door-to-door survey conducted in the Phoenix metro area targeting retirement communities had yielded disappointing results. Though community members through their neighborhood association had reviewed and approved of the study and accompanied researchers door to door, few elders were willing to respond to the survey.

Elders participating in the activities of a network of senior centers in the Phoenix metro area would perhaps be more receptive to filling out a survey. The Director of Senior Services for the city of Phoenix reviewed the content and approved the distribution of the survey to centers run by the city of Phoenix. This author subsequently met with staff members at 12 senior centers to explain the study and review the questionnaire. Most senior center directors preferred to have their own staff administer the questionnaire. The director at each senior center provided a numerical estimate of the number of elders at that center who could be expected to complete a survey. As a result of these estimates, a total of 800 surveys were distributed to the 12 senior centers.

A second round of identical surveys was distributed to four senior centers in September, 2006. It was belatedly learned that one senior center in the earlier sample functioned nearly exclusively in Spanish. Another chose not to participate. The complications to the study design of having a questionnaire in both Spanish and English resulted in the Spanish-speaking center being removed from the study, leaving a total of 14 participating centers.

Asking a group of elders ranging from 60 to 97 years of age about their lifetime history of victimization in a self-completed questionnaire presents numerous challenges. Writing the requested information by hand on the answer sheet takes effort that requires a commitment to completing the questionnaire fully. In order to instill that commitment, this author introduced the survey or, when it was administered by a senior center staff member, supplied a narrative describing the purpose of the questionnaire in a manner intended to elicit the willingness of elders to fill out the questionnaire completely. When possible, this author was available to answer any questions and to ensure that the conditions of administration allowed elders to complete the survey individually, with a degree of privacy deemed sufficient by the elder and with no distractions.

Space was provided on the answer sheet for respondents to describe the victimization incident, when it happened, how they reacted, and how fully they had recovered. Respondents indicated their degree of recovery based on a 1-4 Likert scale, where 1 was “not at all recovered” and 4 was

"fully recovered." Reaction was coded by reviewing the information about the victimizing event on the answer sheet and was graded from 1 to 3, where 1 is "a low level of emotional control" and 3, "a high level of emotional control."

The victimization variables (crime, traffic accidents and natural disasters) subsequently used in data analysis were coded based on the lifetime total (no history, one experience, two experiences or more than two experiences) of each type of incident experienced by the elder. In all subsequent analysis, interval-level data was assumed. A coding sheet for all variables entered into SPSS may be found in Appendix 3.

CHAPTER V

Findings

Demographic information of elder respondents is compared to U.S. census data of similar age people (60+ years of age) for the city of Phoenix (United States Census Bureau, 2010). A total of 67% of elder respondents are female (54%). By race, 69% of elder respondents were white Caucasian (72.8%), 1.7% were black (6.3%) and 18.3% were Hispanic (17.3%). Among elder respondents, 25% were married (54%), 42% were widowed (19.9%), 17.7% were divorced (18.3%) and 10% were never married (6.4%). Approximately 54.6% of elder respondents had no disability (70.7%), while 30% had at least one disability (29.3%). With regard to education, 25% of elder respondents had less than a high school degree (18%), 34.4% graduated from high school (25.9%) and 27% had at least some college or more (56.1%) (figures in parentheses are 2010 Census Bureau data for the city of Phoenix, age 60+). Table 5 displays a comparison of elder respondents with census data for the city of Phoenix.

Table 5 Demographic data for elder respondents and for elders age 60+ in the city of Phoenix

	Elder respondents	Phoenix residents, age 60+
% female	67%	54%
Caucasian white	69%	72.8%
Hispanic	18.3%	17.3%
Black	1.7%	6.3%
Married	25.1%	53.9%
Widowed	42.3%	19.9%
Divorced	17.7%	18.3%
No disability	54.6%	70.7%
Some disability	30%	29.3%
Less than high school degree	25%	18%
High school graduate	34.4%	25.9%
Some college or more	27%	56.1%

Response characteristics for all variables may be found in Appendix 2.

For H_1, the 18 coping behaviors measured in the current study underwent principal components analysis (PCA) using SPSS version 11. The suitability of the data for PCA was assessed prior to factor analysis. The correlation matrix of the variables revealed that a number of correlations were .3 or above. The obtained Kaiser-Meyer-Olkin value of .781 exceeded the recommended value of .6 (Pallant, 2005). Also, the obtained value for Bartlett's Test of Sphericity reached statistical significance, thereby fulfilling the conditions for conducting factor analysis.

Principal component analysis identified four components whose eigenvalues exceeded a value of 1 (see Table 6). These components, in descending order of significance, explained 22.3%, 12.5%, 6.8% and 6.4%, of the variance. A scree plot revealed a prominent break at the point of the

third component. Parallel analysis confirmed that only the first two components had eigenvalues exceeding those of a comparable, randomly generated data matrix (18 variables X 335 respondents).

In order to facilitate interpretation of the findings, the data were subjected to Varimax rotation. Results show variables loading generally on either of the two components (see Table 7). Combined, the two components explained 34% of the variance, with component 1 accounting for 20.2%, and component 2, at 14.6%.

Table 6 Total Variance Explained and Comparison of PCA eigenvalues with parallel analysis criterion values to determine the number of factors for subsequent rotation

Component	PCA Eigenvalues	% of Variance	Criterion values from Parallel Analysis	Include/exclude in subsequent rotation
1	4.010	22.277	1.4196	Include
2	2.252	12.514	1.3388	Include
3	1.225	6.804	1.2757	Exclude
4	1.152	6.401	1.2255	Exclude
5	.985	5.475	1.1734	Exclude
6	.945	5.251	1.1256	Exclude
7	.901	5.006	1.0843	Exclude
8	.843	4.685	1.0456	Exclude
9	.798	4.431	1.0053	Exclude
10	.720	4.003	0.9671	Exclude
11	.685	3.803	0.9290	Exclude
12	.624	3.467	0.8909	Exclude
13	.576	3.202	0.8566	Exclude
14	.521	2.892	0.8196	Exclude
15	.502	2.791	0.7765	Exclude
16	.499	2.773	0.7365	Exclude
17	.438	2.432	0.6929	Exclude
18	.323	1.793	0.6370	Exclude

Extraction Method: Principal Component Analysis.

Table 7 Pattern/structure of coefficients in a two-factor solution for coping variables using Varimax Rotation

	Adaptive Coping factor	Maladaptive Coping factor
perceived needs being met	.651	-.097
social capability	.645	.019
selective application of resources	.631	.005
relational affinity	.617	-.257
perceived social support	.599	-.132
perceived resourcefulness	.576	-.178
view of the aging process	.569	-.294
situational control	.491	-.113
future orientation2	.474	.212
future orientation1	.452	.229
perceived adaptability	.433	-.389
emotion-based coping	-.056	.723
worry/anxiety	.045	.600
stress	-.156	.590
perceived helplessness	-.045	.568
conflicts with others	-.164	.540
others exaggerate an elder's helplessness	-.030	.461
stereotype of elders as vulnerable	.293	.309

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

In H_2, the sample of elders was divided by level of education into those with less than a high school education (n=89), those whose highest level of education was obtaining a high school degree (n=122) and those with more than a high school degree (n=95). A total of 37 elders did not specify a level of education on the questionnaire.

Findings are summarized in Table 8. Results of a Pearson correlation are significant at a level of .05 (two-tailed) only for those elders with both a

high school degree and at least some college. While the correlation of the cohort with the lowest level of education did not obtain significance, an increase in the correlations was clearly discernible. Findings would seem to support the hypothesis that as their level of education and social support increases, elders perceive themselves to be more resourceful.

Table 8 Correlations of social support and perceived resourcefulness by level of education

		Less than HS degree (n=89)	HS degree (n=122)	At least some college (n=95)
Social support X Perceived resourcefulness	P. Corr.	.070	.203	.373
	Sig. (2-tailed)	.525	.033	.000

In H_3, the sample of elders was divided into three age cohorts: 60-69 years of age (n=75), 70-79 years of age (n=140) and 80+ years (n=120). A total of 20 elders declined to give their age.

Results are summarized in Table 9. There is a statistically significant, very marked drop from the youngest to the oldest cohort in a manner that reveals a shift away from the selective application of resources as a factor in the perceived resourcefulness of elders.

Table 9 Selective application of resources X perceived resourcefulness by age cohort

Selective application of resources X perceived resourcefulness		60-69	70-79	80+
	P. Corr.	.629	.432	.314
	Sig.(2-tailed)	.000	.000	.001

In a correlation of adaptability by situational control for the three age cohorts in H_4, the youngest cohort failed to attain statistical significance, but the overall trend of an increase in correlations by age is evident. Results

are summarized in Table 10.

Table 10 Perceived adaptability X situational control by age cohort

Perceived adaptability X situational control		60-69	70-79	80+
	P. Corr.	.169	.256	.313
	Sig.(2-tailed)	.168	.003	.001

Correlations of an elder's view of the aging process with social capability and with relational affinity in H_5 may help characterize the social choices of elders. The oldest age cohort in the correlation of social capability with the variable "view of the aging process" failed to attain statistical significance. Correlations for the younger cohorts in the same correlation indicate a rise, such that one can say that elders in their 70s seem to value the instrumental character (social capability) of relationships.

The more noteworthy trend, however is in the direction of the correlations of the variables "view of the aging process" with relational affinity. A distinct increase in the values from the youngest to the oldest cohort points to the growing importance of close, emotional ties over time. Results are summarized in Table 11.

Table 11 View of the aging process X social capability and X relational affinity, by age cohort

			60-69	70-79	80+
View of the aging process X	Social capability	P. Corr.	.276	.352	.121
		Sig.(2-tailed)	.024	.000	.224
	Relational affinity	P. Corr.	.358	.540	.679
		Sig.(2-tailed)	.003	.000	.000

The lifetime total of traffic accidents experienced by elders was

divided into three categories in H_6: those which were the fault of the elder (my-fault traffic accidents, n=25), those which were not the fault of the elder (not-my-fault accidents, n=80) and those for which fault was undetermined (undetermined-fault accidents, n=58). Each was correlated with the last year of school completed to investigate the effect of education upon the lifetime total of type of traffic accident experienced.

Correlations for not-my-fault and my-fault accidents were statistically significant in a manner that lends some support to the hypothesis that a higher level of education is associated with not causing a traffic accident. Undetermined-fault traffic accidents were not statistically significant and had the lowest value of the three correlations. Results are summarized in Table 12.

Table 12 Last year of school completed X lifetime total of traffic accidents by fault type (my fault, not my fault and undetermined fault)

		My fault	Not my fault	Undetermined fault
Last year of school completed	P. Corr.	.116	.232	.059
	Sig. (2-tailed)	.038	.000	.297

Situational control was correlated in H_7 with the lifetime total of two criminal victimization variables. One variable groups robbery, theft and burglary together (RTB, n=80). The other variable is of assault (n=15). The correlation of situational control with RTB was not statistically significant, but the correlation coefficient was negative, indicating that a history of RTB lowers an elder's perception of being able to manage the situation. The correlation coefficient for assault was significant at $p<.05$, and was more

strongly negative than that for RTB in a manner that suggests that a lifetime total of experienced assault diminishes perceived situational control more than is the case for RTB. Results are summarized in Table 13.

Table 13 Situational control X lifetime total of two criminal victimization variables: assault and robbery/theft/burglary

		Robbery/theft/burglary	Assault
Situational control	P. Corr.	-.035	-.113
	Sig. (2-tailed)	.531	.044

The reaction and degree of recovery from a traffic accident were correlated in H_8 for each of three categories of accidents (my fault, not my fault and undetermined fault) to inquire into whether the fault of the accident influences the relationship between controlling one's emotions after the accident and recovering from the accident. The only correlation coefficient to attain statistical significance was the correlation of the not-my-fault accident category. Similar to H_6, the ascending direction of the correlation coefficients was from undetermined fault to my-fault, to not-my-fault. Results are summarized in Table 14.

Table 14 Reaction X recovery for three traffic accident types: my fault, not my fault and undetermined fault

		My fault	Not my fault	Undetermined fault
Reaction X recovery	P. Corr.	.339	.505	-.312
	Sig. (2-tailed)	.235	.001	.257

CHAPTER VI

Discussion

Layout of the self-administered questionnaire

The questionnaire initially developed for phone interviews was only slightly altered for self-completion. One senior center staff member observed that elders struggled with the format. The staff member wrongly concluded that successfully completing the questionnaire was part of the assessment. The first section in which the respondents were to indicate how they would respond to fictitious situations so as to assess their coping skills, adaptability, or helplessness was particularly difficult for elders. Respondents handled the Likert scale questions much more easily.

Additionally, the conditions for completing the questionnaire varied somewhat among the senior centers. Some senior center directors wanted staff members to present the questionnaire to the elders, thereby to have some flexibility in working the completion of the questionnaire into the schedule of activities at the center. When delivering the surveys to the centers for administration by a center staff member, I included a narrative of the purpose of the study which staff members could use to introduce the questionnaire, but I have no assurance that staff members actually used the narrative, nor any assurance regarding how staff members may have answered questions from elders about the questionnaire. Senior center staff at each center provided a verbal assurance that elders were free to decline participation in the study, and the modest survey completion rate (355 out of

800 potential completions as initially deemed possible by the directors of the senior centers) indicates that many elders chose not to participate in the survey, for whatever reason.

Other directors allowed me to distribute and present the questionnaire to the elders, usually before or after lunch.

The first page of the questionnaire contained a total of six written narratives of situations intended to assess coping, helplessness and adaptability. After reading the narrative, respondents were given five choices to indicate how they would respond in that situation. Two of the options were "I don't know" or "Do something else", which limited the narrative-based responses to three choices. Respondents were confused by the layout of the answer sheet, leading to crossed-out mistakes or blanks. Some respondents wanted to respond in ways not included among the choices, so they wrote in how they would respond, either on the answer sheet or on the question sheet.

The result was that the responses offered to the narratives were not usable in the present study. Responses for the two narratives that supposedly were measuring the same variable (coping, helplessness or adaptability) did not correlate with each other. Providing a narrative of a situation followed by an open-ended question such as "How would you respond in this situation?" would have simplified the demands placed upon the respondent and potentially have yielded more meaningful results, though the process of evaluating the responses afterwards to make them suitable for coding would have presented its own challenges.

The section asking respondents to describe their lifetime history of being a crime victim or in a traffic accident required more effort than supplying their year of birth, for example, or checking a box on a Likert scale. Some respondents could not be bothered to provide the kind of detailed information requested, so the resulting data likely is incomplete relative to the actual life experiences of respondents on the queried topic.

Space was provided on the answer sheet for respondents to write their opinion about the questionnaire and the types of questions being asked. No questionnaire meets with universal approval, and elders voiced their disapproval with some aspects of the questionnaire. During one visit, a respondent asked how to handle questions that she objected to (answer: just leave it blank). Marital status (249 completions out of 355 possible; a 70% completion rate) and income (198 completions; a 55% completion rate) had the lowest rates of completion. Other studies report that 60% of respondents did not provide data on educational level (Gadalla, 2009). One respondent simply quit filling out the survey upon reaching the income question. When asked about racial background, one respondent simply replied, “Human.”

Upon hearing that I wanted information related to how she meets the challenges to daily living, one respondent asked, “Do you want to know about my living situation before or after I fell down the stairs?” Public health data lent support to falls as potentially life-changing events. Among adults 65 years of age and over, approximately one-third fell each year. In 2008, 82% of deaths from falls were among elders aged 65 and over, with the rate for

adults 85 and over being more than four times that for those in the 65-74 age bracket. Approximately 20-30% of elders 65 years of age and older sustained moderate to severe injuries as a result of a fall: lacerations, hip fractures and/or head trauma. Unsafe use of assistive devices such as walkers and canes may lead to a fall. Each year, nearly 50,000 elders were treated in emergency rooms for falls related to their use of a walker or cane (Henry, 2009). These injuries, as demonstrated by the comment of the elder respondent in the senior center, significantly may impact the ability of the elder to live independently and continue valued activities (Centers for Disease Control and Prevention, 2011).

Another limitation related to gathering data from elders in a written, self-completed survey was that I do not know the reason elders did not answer certain questions, most notably income and marital status. It might have been useful to consider alternative ways of phrasing questions on issues that elders might have found objectionable. For example, because a number of elders chose not to provide information about their income, perhaps for the purposes of this study it would have been sufficient to elicit from elders whether they felt they had enough money to meet their needs. This question would focus on an elder's perceived sufficiency of income and, thus, whether or not financial resources constrain an elder's coping efforts.

Gender differences in the aging process, experience and outcome might have shaped coping efforts in a significant manner. Compared to their female counterparts, bereaved widowers had a higher incidence of physical

and mental illness, disability, death and suicide (Garfinkel, 2011). To the extent that elders prioritize physical health as a prerequisite for engaging in valued activities (Jonker, Comijs, Knipscheer, & Deeg, 2009), coping as it relates to the maintenance of physical health and correlates to psycho-social variables warrant focus.

Regarding the coping process as described in the PSCT, there is some evidence that the coping resources available to the individual influences the appraisal process (Jonker, Comijs, Knipscheer, & Deeg, 2009). Nothing in the PSCT explicitly describes that the character of the coping repertoire affects the appraisal process.

Limitations of the study

A potential bias in adopting a self-completed questionnaire is that those elders who possess the cognitive, contemplative skills needed to complete the questionnaire, skills which may stem from a greater number of years of education, may emphasize in their responses those same skills as reflected in the assessed coping variables. Thus, the way the data was gathered via a self-administered questionnaire might bias the findings and accentuate a narrower range of coping behaviors than was present among elders.

Data in the present study was collected at each senior center only once, preventing any inferences with regard to causality. Do elders who cope well with life participate in senior centers, or does participation in senior center activities augment the coping skills of elders? A longitudinal study

would advance inquiries into this type of question. Also, the current study did not have a control group, which would have extended the types of inferences that could have been drawn. All senior centers were located in the Phoenix metropolitan area, which limited the ability to generalize beyond that geographical area.

Another limitation concerned the fact that all data gathered stemmed from the perceptions of the elders supplying the data about themselves. Rather than devising ways to measure resourcefulness or stress objectively, the current study relied upon the participants' perceptions of these variables. As noted earlier, significant disparities might have arisen between objective and subjective measures of coping variables. Also, insofar as data were gathered at senior centers which stood out as a prominent social setting in the minds of elders, elders might have provided information based on what they felt were socially appropriate responses rather than based on a more private assessment, though the anonymity of a written questionnaire hopefully would have reduced any social bias to an elder's responses.

In measuring stress, not only the sum of total stressors and their frequency, but the character of the stressors should be assessed so as to determine their relationship to other variables (Rosnick, Small, McEvoy, Borenstein, & Mortimer, 2007). To the extent that individuals are motivated to avoid what they perceived as a negative development and to pursue an attractive option, might the PSCT include achieving a desired state

(well-being) as well as avoiding a negative state (stress)? Is the assumption in PSCT that the individual is more strongly motivated to take purposive action to minimize or remove a negative state than to achieve an attractive state? To the extent that victimization is negative, perhaps the PSCT has been formulated with the situation of victims in mind.

While coping theory focuses upon the adaptive-maladaptive dichotomy in characterizing coping behaviors, the results from H_3 indicate that such a dichotomy might not account for the shift in emphasis over time within the domain of adaptive behaviors. Both the selective application of resources and perceived resourcefulness clearly belong in the adaptive category, as indicated by the results of factor analysis in H_1. However, H_3 indicated that the importance of the selective application of resources as a factor in the perceived resourcefulness of the older cohorts markedly fades in a trend that is clear and significant. The decades of events and life changes that are part of the elder experience make it difficult for researchers to characterize the choices and orientations of elders in a facile manner.

While not statistically significant, the drop in the value of the correlation coefficient in H_5 of "view of the aging process" X social capability for the oldest cohort indicates perhaps a re-orientation among elders transitioning from their 70s to their 80s in the way that they relate with others. The side-by-side juxtaposition of the correlations of view of the aging process with social capability and with relational affinity suggests that the re-orientation of the social relationships of an elder was in favor of close,

emotional ties.

Distinguishing between traffic accidents in H_6 on the basis of whether or not it was their fault was not part of the original questionnaire and was prompted by the elders themselves. A preponderance of elders categorized their experience of traffic accidents in terms of whether they had caused the accident or not. Insofar as the questionnaire did not explicitly inquire into the fault of the accident, it is difficult to evaluate the responses of those who did not specify fault.

Any hypothesis that includes education as a variable that is tested using data from a written, self-administered questionnaire must contend with the possibility that the method of gathering data introduces a bias in favor of those with the ability (that is, education) to complete the questionnaire. The potential of missing data from those who could not be bothered to fill out the questionnaire completely or who did not list their entire history of traffic accidents further limits the inferences that might be drawn.

CHAPTER VII

Conclusions

This broad inquiry (18 coping variables supplemented by the lifetime history of victimization of the elder in traffic accidents, natural disasters and crime) represents an attempt to describe the ways in which elders cope with their life situation. Results from the hypotheses further the inquiry about the ways that the PSCT in particular might be used to characterize the coping efforts and processes of elders. The findings from factor analysis provided some evidence for the prediction in the PSCT that coping variables will sort themselves into adaptive or maladaptive components. In a manner similarly predicted by the PSCT, higher levels of education and social support (H_2) would seem to elevate an elder's perceived resourcefulness.

Inquiring into differences among age cohorts represents an attempt to understand the diversity of elders. That the selective application of resources in the appraisal process successively fades among older cohorts (H_3) suggests cohort differences in the ways that elders cope with their problems. H_4 provides some evidence for the contention that adaptable elders perceive themselves to have greater control over their life situations. Another difference among cohorts emerges in the realm of social relationships. Rather than the instrumental character of social ties, the emotionally meaningful role of social relationships seems to be significant among the older age cohorts (H_5).

The questionnaire asked elders to describe their lifetime history of

being in a traffic accident, experiencing a natural disaster, and suffering from a criminal victimization. The data suggests that an increasing level of education lowers the probability that a traffic accident will be the fault of the elder (H_6). Similarly, the data suggests that maintaining control of one's emotions in a traffic accident that is not the fault of the elder contributes to a higher degree of recovery from the accident (H_8). An elder's experience of assault, more than that of robbery, theft or burglary, appears to diminish the elder's perception of being able to control situations that arise in life.

Senior centers provided the organizational context for the gathering of data in the present study. The fact that attending a senior center is itself a coping behavior for augmenting one's quality of life indicates that the results described herein may characterize the situation of those elders who are able and willing to manage their life situation. The accessibility of elders attending senior centers is very attractive to researchers seeking to describe and improve the life situation of elders.

What is the future of senior centers? As the "Baby Boomers" enter retirement, they will be focused on consumer issues, health and self-help activities. The gap between rich and poor in American society will be reflected among senior center participants as well. Boomers are likely to be demanding customers, with high expectations for services. These factors are likely to affect the operations and orientation of senior centers.

How does our understanding of elder coping explain those elders who seem to have the resources to cope, but simply give up? One possible

response is to focus on the issues of hope in the outlook of the elder. When comparing cohorts over the entire life span, elders are the least likely to complain. They may choose to put up with a stressful situation, even if potentially modifiable, rather than engage in the process that improves their quality of life. Coping reflects a choice regarding how one wants to live one's life. The values and orientation to living that underlie an elder's choices warrant scrutiny if the goal is to understand the lives of elders.

The field of meaning-based coping focuses specifically on how the life choices of elders reflect their priorities. In addressing a medical problem, for example, the elder and doctor can choose to focus on alleviating the medical condition, on reducing the severity of symptoms or on retaining the life functions that the elder perceives to be valuable. Most physicians are trained to focus on the medical condition, and the orientation of the medical establishment regarding their care may be difficult for elders to influence once they are swept up in the system of a large medical center. What is it that gives clarity to the ways that some elders identify and persistently advocate for their own interests? Further inquiries into effective coping among elders, especially abused elders, may yield significant insights into effective *vs.* ineffective ways of coping.

The understanding that elders have developed over the course of a lifetime shapes the way they respond to life challenges. On the subject of happiness, a 75 year-old man interviewed as part of the Cornell Legacy Project stated that while it is impossible to control all that happens to a

person in life, a person is completely in control of his/her attitude and reactions to those life events. Elders in the study viewed happiness as a choice, not the result of how life treats you. An 84 year-old suggested that individuals adopt a policy of being joyful (Brody, 2012). Humans may have an ingrained memory bias tilted toward happiness as they age: while a large proportion of people in their 30s state that they had an unhappy childhood, upon reaching their 80s, only 5% felt the same way (Garfield, 2004). Being grateful has been found to have significant, positive effects upon one's health.

CHAPTER VIII

Future Directions

The maturation and inoculation hypotheses are posited in the literature to characterize the vulnerability of elders in a natural disaster. Might these hypotheses also be applied to other forms of victimizations that the elder has experienced, such as traffic accidents and criminal victimizations?

Because aging is a life-long process, understanding the response of elders to challenges in later life requires a detailed understanding of their life history: antecedent events, the formative years, and the way in which larger social and historical forces have impacted the life of each elder. Later recollection from the elder about his/her prior history is useful to divulge current thinking regarding earlier life events and may give insight into the future behavior of the elder, but does not substitute for data gathered closer to the time of significant life events. Longitudinal studies are an ideal format to gather data regarding respondents' experiences of criminal victimization, natural disasters, traffic accidents, etc., that may enable the researcher to construct a detailed picture of the life-long sequelae of these experiences in the life of an elder, a cohort, a community and a society.

Longitudinal studies offer the opportunity to chart how individuals at various stages of their lives conceived of, and prepared for later life. How did these notions of later life affect their ability to cope when they subsequently became an elder themselves? There is some evidence that

stereotypes related to gender and age are more resistant to change compared to racial and ethnic stereotypes. Aging stereotypes in particular may be inaccurate due to the current growth in the numbers of elders, their life expectancy and improved health. Elders experienced the negative aspects of aging (loneliness, illness and financial difficulty) far less often than young adults anticipated. Furthermore, those who are 60-70 years of age may not have resolved for themselves their own stereotypes of aging with regard to their own situation in ways that may negatively impact memory. Growing older represents unknown territory, especially in the current context, and humans have difficulty grappling with the unknown. Targeted research, outreach and advocacy can attempt to fill the void in ways that extend years of independent, dignified living for elders. The role of outreach rises in importance when considering that knowledge of services is key to obtaining them.

Regarding social support, what efforts do elders make to shape social networks which have been dislocated by a personal crisis or change in the elder's life situation? In a related vein, how the situation of the afflicted elder impacts others, whether they be friends, family or neighbors, and the role of these others in the coping process and outcome represents a potentially fruitful field of inquiry.

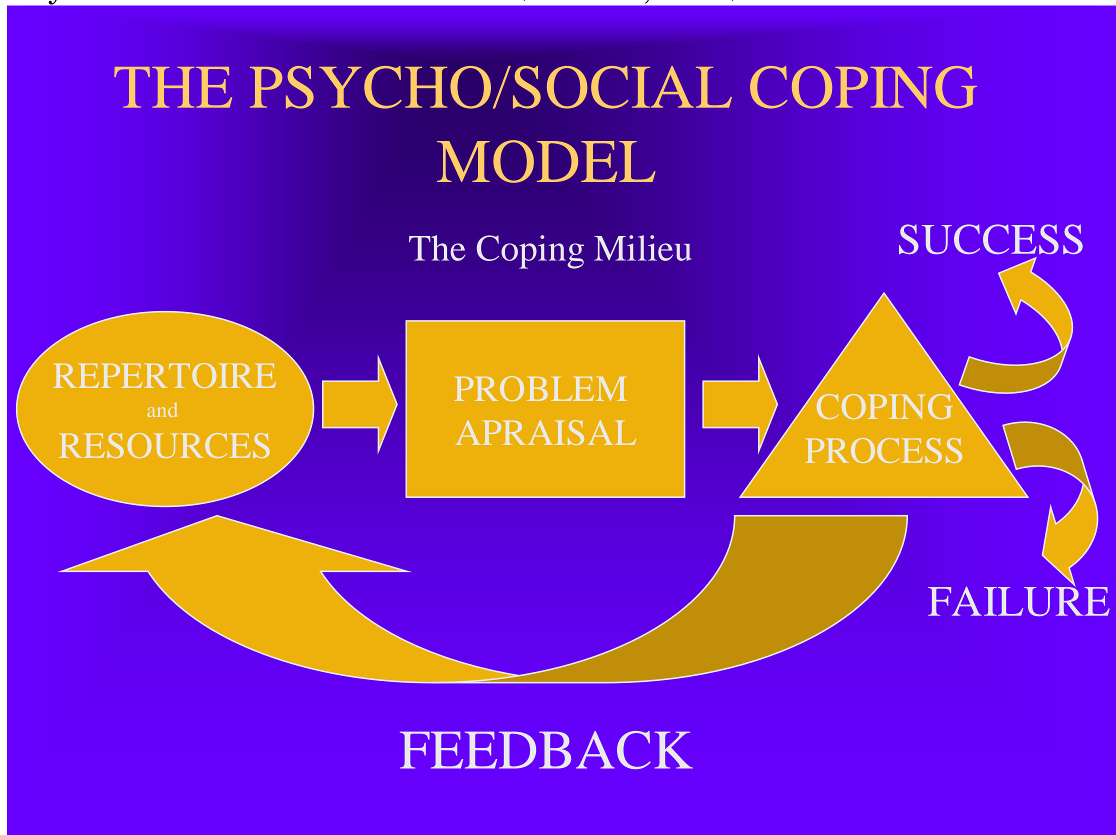
Perhaps the ultimate act of coping in the life of an elder relates to preparing for and taking purposive action related to one's own death. The physical and mental condition of the elder, his/her values and preferences

and culture of origin, policies of the health care organization where the elder receives care and relevant laws shape the course of death of an elder. Gathering information, having candid discussions with loved ones and health care professionals, and stating preferences regarding one's manner of death are difficult steps to take in a culture which is focused on living rather than dying. And yet the efficacy of medical care for elders is being questioned. For example, less than 2% of elders in their 80s and 90s who had been revived following cardiac arrest lived for more than one month (Gross, 2008a). These and similar statistics can help elders during conversations with loved ones and health care providers to determine a course of action with which to meet death.

Laws that provide elders with options for dying vary across countries. This variation of legal practices can be used to facilitate discussions regarding the latitude that societies are prepared to give elders when it comes to preparing for their death. In the American context, issues such as euthanasia on which there is no social consensus usually are first handled by individual States. The baby boomer generation has been a force for social change throughout its tumultuous existence and likely will institute wide-ranging social innovation in how society responds to the needs of older adults, and especially of the oldest adults, due to their rising proportion of all elders and their acute needs.

Appendix 1

Key theoretical source documents (Dussich, 2006)



The Psycho/Social Coping Model

The P/SCM starts with the **Coping Milieu** and an individual's **5 Personal Resources**:

1. **Repertoire**
2. **Time**
2. **Social assets**
3. **Psychic assets**
4. **Physical assets**

The Psycho/Social Coping Process

-This psycho/social coping process has four distinct phases:

1. **Prevention (Starts with the awareness, a problem is possible.)**
2. **Preparation (Starts with the awareness, a problem is imminent.)**
3. **Action (Starts when the problem is present.)**
4. **Reappraisal (Starts after the problem is over.)**

-Each phase is a continuum within which a person can make a choice, with failure more likely at one end, and success more likely at the other end.

THE FOUR PHASES OF PSYCHO/SOCIAL COPING

prevention

\+ AWARENESS OF A PROBLEM POSSIBILITY -

+	-
REASONABLE ANTICIPATION OF A PROBLEM "proactive coping" (Aspinwall & Taylor, 1997) "anticipatory coping" (Schwartzer &Knoll, 2003)	DENYING THE LIKLIHOOD OF A PROBLEM

preparation

AWARENESS AND APRAISAL OF A PROBLEM

(Kopp, 1982)

+	-
PREPARATION - APPRAISAL - REHEARSAL - The Work of Worrying (Janis, 1965) - The Work of Practicing (Dussich, 1988)	ABSENCE OF PREPARATION - NO APPRAISAL - NO REHEARSAL - NO Worrying (Janis, 1965) - No Practicing (Dussich, 1988)

action

PROBLEM-EVENT OCCURS

+	-
COPING - LEARNED RESOURCEFULLNESS (Meichebaum, 1973) - SELF-DELIVERED REASSURANCE - DIMINISHED VULNERABILITY	FAILURE TO COPE - LEARNED HELPLESSNESS (Seligman, 1973) - DISAPPOINTMENT IN PROTECTIVE AUTHORITIES - INCRESED EXPECTATION OF VULNERABILITY (Meichenbaum, et al., 1975:339)

reappraisal

PROBLEM-EVENT IS OVER

+	-
SECONDARY COPING - REPLAY - ASSESSMENT	NO SECONDARY COPING - NO REPLAY - NO ASSESSMENT

Victim Taxonomy based on the Psycho/Social Coping Model

I. **Pre-victimization** conditions which increase **vulnerability** are:

1. high-risk milieu
2. distorted problem-appraisals
3. psychic disabilities
4. social disabilities
5. physical disabilities
6. limited time
7. underdeveloped coping (inexperience)
8. faulty coping (maladaptive)

Persons with these vulnerability conditions do not cope well and are at high risk of being victimized in their personal milieu.

Victim Taxonomy based on the Psycho/Social Coping Model continued

II. **During-victimization** conditions which facilitate adaptive coping (Dussich, 1988; Mohino, et al., 2004):

1. use of resourcefulness
2. self-delivered reassurances
3. positive thinking - learned optimism (Seligman, 1992)
4. logical analysis
5. rational action
6. regulate negative emotions (Folkman & Moskowitz, 2004)
7. positive reappraisal
8. problem solving
9. diminished vulnerability

Persons who use these techniques increase their chances of coping adaptively.

Victim Taxonomy based on the Psycho/Social Coping Model continued

III. General **Post-victimization** conditions related to resources, appraisal, coping and recovery:

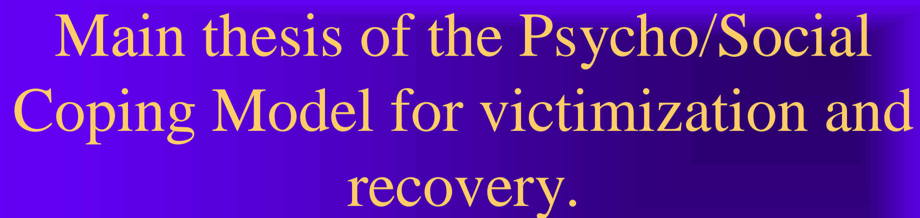
1. A victim with adequate personal resources, who problem-appraises accurately, facilitates adaptive coping and enhances victim recovery.
2. A victim with inadequate personal resources, who problem-appraises inaccurately, facilitates maladaptive coping and continues suffering.

Taxonomy continued…

IV. Specific **Post-victimization** conditions which facilitate **recovery**:

1. healing milieu
2. positive intervention
3. psychic strengths
4. social strengths
5. physical strengths
6. time abundance
7. developed coping (mastery)
8. appropriate coping (adaptive)
9. approach coping (Griffith, et al. 2000)

Persons with these resiliency conditions cope well and have a high chance of recovering from their victimization.



Persons with few **resources specific to their life-style** have a higher likelihood for becoming victims; if they become victims, they have a poorer chance of surviving; and, if they survive, they will not recover well. On the other hand, those with more **resources specific to their life-style** have a higher chance to avoid victimization, if victimized, will cope better and recover sooner.

Appendix 2

SENIOR LIFE SURVEY

The following survey is part of a university research project on senior living. Results of the survey will be used to increase our understanding of the situations of senior citizens and to develop programs and services of benefit to them. Thank you for participating!

Please read the following situations, then select the response that best describes what you would do in that situation. Please mark your answer on the answer sheet.

1. You are visiting a neighbor who briefly leaves you alone in their home to go on an errand. You know that the neighbor is expecting an important phone call. Suddenly the phone rings. Would you…

    1. Answer the phone
    2. Not answer the phone
    3. Look to see if the neighbor is coming back
    4. Don't know
    5. or do something else?___________________

2. You are walking along a busy street and you see a small dog running loose. The dog seems confused, and you are afraid it might get hit by a car. Would you…

    1. Continue to walk on
    2. Call out to the animal
    3. Ask for help from others
    4. Don't know
    5. or do something else? ___________________

3. You are walking with a friend when the heel of your shoe breaks. The broken heel makes it hard for you to keep your balance. Would you…

    1. Wait for someone to help you
    2. Find somewhere to sit down
    3. Reach for your friend's arm
    4. Don't know
    5. or do something else?____________________

4. You are alone and you discover that a bat has flown into your home. It is flying from room to room. Would you…

    1. Watch the bat
    2. Call a friend or neighbor
    3. Leave the house
    4. Don't know
    5. or do something else? ___________________

5. You arrive with friends to eat at your favorite restaurant. They say a table will be ready for you in 45 minutes. Would you…

1. Accept the situation
2. Find out how your friends feel about waiting
3. Consider eating somewhere else
4. Don't know
5. or do something else?__________________

6. You plan to take a vacation with a friend. At the last minute, the friend cancels. Would you…

1. Invite someone else
2. Go on the vacation alone
3. Cancel the vacation
4. Don't know
5. or do something else? __________________

Please read the sentences below and write on the answer sheet whether you agree or disagree with the sentence. Please answer by giving me a number between 1 and 4 where 1 is "strongly <u>dis</u>agree" and 4 is "strongly agree."

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

7. I think I can find some way to deal with the problems in my life.

8. I plan activities a month or more in advance.

9. It's easy for me to discuss things with other people.

10. I worry about my personal problems.

11. I am unable to control important issues in my life.

12. I get emotionally worked up when dealing with problems.

13. When a problem arises, I consider the options available to me.

14. I adjust well to whatever comes my way.

15. I manage to meet my needs.

16. I tend to have conflicts with people in my life.

17. I know people who will help me if I need them.

18. For important events such as weddings, vacations, and birthdays, I make plans a month or more in advance.

19. I relate well with others.

20. I am up to the challenge of growing older.

21. I receive help from others in order to meet my needs.

22. I think that people exaggerate my problems.

23. I believe that elderly people are vulnerable to various kinds of abuse.

24. I believe I can control what happens in my life.

25. I find living to be stressful.

Now I would like to ask you a few questions about yourself:

26. Are you…
   1. male
   2. female

27. What year were you born? ___________

28. Are you…
   1. married (if yes, then "How long?" ____ years)
   2. never married
   3. separated (if yes, then "How long?" ____ years)
   4. divorced (if yes, then "How long?" ____ years)
   5. widowed (if yes, then "How long?" ____ years)

29. What is your occupation? ____________________

30. What race are you?
   1. African American
   2. White Caucasian
   3. Hispanic
   4. Asian
   5. Combination of any of the above
   6. other _______________

31. About how much money does your family (husband and wife together) make now in a year?

1. less than $10,000
2. 10,000 - 14,999
3. 15,000 - 19,999
4. 20,000 - 24,999
5. 25,000 - 29,999
6. 30,000 - 34,999
7. 35,000 - 39,999

8. 40,000 - 44,999
9. 45,000 - 49,999
10. 50,000 -59,999
11. 60,000 - 74,999
12. 75,000 - 99,999
13. 100,000 - 124,999
14. 125,000 - 149,999
15. 150,000 - 199,999
16. 200,000 or more

32. What is the last grade of school that you finished? _______________

33. How many years have you lived in your current home? ________ years

34. What is your zip code?_____________

35. How many people live in your home including yourself? _________

36. Are you disabled? Yes / No
If yes, on a scale of 1 - 4 where 1 is mildly disabled and 4 is severely disabled, how disabled are you? ____

37. Would you say that you are <u>not at all</u>, <u>moderately</u>, or <u>very</u> happy with your life?

38. Compared with other neighborhoods, do you think crime in your neighborhood is low, medium, or high?

39. Have you ever been the victim of a crime?
If yes, what was the nature of that crime? ____
When did this happen? ____________________
What was your reaction?____
On a scale from 1 to 4 where 1 is not at all recovered and 4 is fully recovered, how much have you recovered? ____________________________

40. Have you ever been in a traffic accident?
If yes, what was the situation? ____
When did this happen? _____________________
What was your reaction?____
On a scale from 1 to 4 where 1 is not at all recovered and 4 is fully recovered, how much have you recovered? _______________________________

41. Have you ever been in a natural disaster such as a tornado, forest fire, flood, or earthquake?

If yes, what was the situation? ____

When did this happen? ____________________

What was your reaction?____

On a scale from 1 to 4 where 1 is not at all recovered and 4 is fully recovered, how much have you recovered? ___________________________

Please call the Senior Help Line at 602-264-4357 if you require assistance in dealing with difficult life experiences.

Thank you very much for your time. Your answers have been very helpful.

SENIOR LIFE SURVEY Answer Sheet

Situational Responses, Questions 1-6

1	2	3	4	5	6
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5

Disagree/Agree Sentences

	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Strongly Disagree:1																			
Disagree:2																			
Agree: 3																			
Strongly Agree: 4																			

26. Gender: M / F **27**. Year of Birth 19____ **28**. Married / Single / Divorced / Widowed / Never Married / _____years **29**. occupation_____________________ **30**. Race: African American / White / Hispanic / Asian / Combination / Other **31**. Household income______ **32**. Last year of schooling completed______ **33**. Years in current residence______ **34**. Home Zip Code_______**35**. Number of people in your home_____ **36**. Disabled? Y / N If yes, severity on a 1-4 scale______ **37**. How Happy are you with your life? NA / M / V **38**. Neighborhood Crime Level: Low / Med / High

39. Crime	**40. Traffic Accident**	**41. Nat. Disaster**
Have you ever been the victim of a crime? If yes, please describe the situation.	Have you ever been in a traffic accident? If yes, please describe the situation.	Have you ever been in a natural disaster such as a tornado, fire, flood, or earthquake? If yes, please describe the situation.
When?	When?	When?
How did you react?	How did you react?	How did you react?
Recovery rating (1-4)	Recovery rating (1-4)	Recovery rating (1-4)

Please call the Senior Help Line at 602-264-4357 if you require assistance in dealing with difficult life experiences.

Thank you for completing the SENIOR LIFE SURVEY. Your answers will be very helpful.

Appendix 3

Response characteristics for all coping variables measure using a Likert scale

Perceived resourcefulness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	12	3.4	3.5	3.5
	disagree	13	3.7	3.8	7.3
	agree	213	60.0	62.5	69.8
	strongly agree	103	29.0	30.2	100.0
	Total	341	96.1	100.0	
Missing	no response	14	3.9		
Total		355	100.0		

Future orientation1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	36	10.1	10.8	10.8
	disagree	94	26.5	28.2	39.0
	agree	161	45.4	48.3	87.4
	strongly agree	42	11.8	12.6	100.0
	Total	333	93.8	100.0	
Missing	no response	22	6.2		
Total		355	100.0		

Social capability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	14	3.9	4.2	4.2
	disagree	64	18.0	19.0	23.2
	agree	194	54.6	57.7	81.0
	strongly agree	64	18.0	19.0	100.0
	Total	336	94.6	100.0	
Missing	no response	19	5.4		
Total		355	100.0		

Worry/anxiety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	34	9.6	10.0	10.0
	disagree	94	26.5	27.6	37.6
	agree	167	47.0	49.1	86.8
	strongly agree	45	12.7	13.2	100.0
	Total	340	95.8	100.0	
Missing	no response	15	4.2		
Total		355	100.0		

Perceived helplessness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	79	22.3	23.6	23.6
	disagree	146	41.1	43.6	67.2
	agree	85	23.9	25.4	92.5
	strongly agree	25	7.0	7.5	100.0
	Total	335	94.4	100.0	
Missing	no response	20	5.6		
Total		355	100.0		

Emotion-based coping

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	49	13.8	14.5	14.5
	Disagree	144	40.6	42.6	57.1
	Agree	122	34.4	36.1	93.2
	strongly agree	23	6.5	6.8	100.0
	Total	338	95.2	100.0	
Missing	no response	17	4.8		
Total		355	100.0		

Selective application of resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	1.4	1.5	1.5
	disagree	32	9.0	9.4	10.9
	agree	213	60.0	62.8	73.7
	strongly agree	89	25.1	26.3	100.0
	Total	339	95.5	100.0	
Missing	no response	16	4.5		
Total		355	100.0		

Perceived adaptability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	12	3.4	3.6	3.6
	disagree	47	13.2	13.9	17.5
	agree	227	63.9	67.4	84.9
	strongly agree	51	14.4	15.1	100.0
	Total	337	94.9	100.0	
Missing	no response	18	5.1		
Total		355	100.0		

Perceived needs being met

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	9	2.5	2.7	2.7
	disagree	15	4.2	4.4	7.1
	agree	217	61.1	64.0	71.1
	strongly agree	98	27.6	28.9	100.0
	Total	339	95.5	100.0	
Missing	no response	16	4.5		
Total		355	100.0		

Conflicts with others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	98	27.6	29.7	29.7
	disagree	155	43.7	47.0	76.7
	agree	68	19.2	20.6	97.3
	strongly agree	9	2.5	2.7	100.0
	Total	330	93.0	100.0	
Missing	no response	25	7.0		
Total		355	100.0		

Perceived social support

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	10	2.8	3.2	3.2
	disagree	21	5.9	6.6	9.8
	agree	200	56.3	63.1	72.9
	strongly agree	86	24.2	27.1	100.0
	Total	317	89.3	100.0	
Missing	no response	38	10.7		
Total		355	100.0		

Future orientation2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	21	5.9	6.6	6.6
	disagree	60	16.9	18.8	25.4
	agree	162	45.6	50.8	76.2
	strongly agree	76	21.4	23.8	100.0
	Total	319	89.9	100.0	
Missing	no response	36	10.1		
Total		355	100.0		

Relational affinity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	1.1	1.3	1.3
	disagree	17	4.8	5.3	6.6
	agree	217	61.1	68.2	74.8
	strongly agree	80	22.5	25.2	100.0
	Total	318	89.6	100.0	
Missing	no response	37	10.4		
Total		355	100.0		

View of the aging process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	12	3.4	3.7	3.7
	disagree	22	6.2	6.9	10.6
	agree	203	57.2	63.2	73.8
	strongly agree	84	23.7	26.2	100.0
	Total	321	90.4	100.0	
Missing	no response	34	9.6		
Total		355	100.0		

Needs met with help of others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	41	11.5	12.9	12.9
	disagree	102	28.7	32.0	44.8
	agree	149	42.0	46.7	91.5
	strongly agree	27	7.6	8.5	100.0
	Total	319	89.9	100.0	
Missing	no response	36	10.1		
Total		355	100.0		

Others exaggerate an elder's helplessness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	51	14.4	16.1	16.1
	disagree	132	37.2	41.8	57.9
	agree	114	32.1	36.1	94.0
	strongly agree	19	5.4	6.0	100.0
	Total	316	89.0	100.0	
Missing	no response	39	11.0		
Total		355	100.0		

Stereotype of elders as vulnerable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	18	5.1	5.6	5.6
	disagree	30	8.5	9.4	15.0
	agree	190	53.5	59.4	74.4
	strongly agree	82	23.1	25.6	100.0
	Total	320	90.1	100.0	
Missing	no response	35	9.9		
Total		355	100.0		

Situational control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	14	3.9	4.4	4.4
	disagree	54	15.2	17.0	21.4
	agree	189	53.2	59.4	80.8
	strongly agree	61	17.2	19.2	100.0
	Total	318	89.6	100.0	
Missing	no response	37	10.4		
Total		355	100.0		

Stress

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	86	24.2	27.2	27.2
	disagree	124	34.9	39.2	66.5
	agree	79	22.3	25.0	91.5
	strongly agree	27	7.6	8.5	100.0
	Total	316	89.0	100.0	
Missing	no response	39	11.0		
Total		355	100.0		

Criminal victimization response characteristics

Robbery theft burglary (RTB)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of RTB	275	77.5	77.5	77.5
	RTB once	69	19.4	19.4	96.9
	RTB twice	5	1.4	1.4	98.3
	RTB more than twice	6	1.7	1.7	100.0
	Total	355	100.0	100.0	

Assault

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of assault	340	95.8	95.8	95.8
	asault, once	11	3.1	3.1	98.9
	assault, twice	2	.6	.6	99.4
	assault, more than twice	2	.6	.6	100.0
	Total	355	100.0	100.0	

Traffic accident response characteristics

My fault traffic accident (MFTA)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of MFTA	330	93.0	93.0	93.0
	MFTA once	23	6.5	6.5	99.4
	MFTA more than twice	2	.6	.6	100.0
	Total	355	100.0	100.0	

Not my fault traffic accident (NMFTA)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of NMFTA	275	77.5	77.5	77.5
	NMFTA once	68	19.2	19.2	96.6
	NMFTA twice	9	2.5	2.5	99.2
	NMFTA more than twice	3	.8	.8	100.0
	Total	355	100.0	100.0	

Undetermined fault traffic accident (UFTA)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of UFTA	297	83.7	83.7	83.7
	UFTA once	50	14.1	14.1	97.7
	UFTA more than twice	8	2.3	2.3	100.0
	Total	355	100.0	100.0	

Natural disaster response characteristics

Fire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of fire	340	95.8	96.0	96.0
	fire of undet or low perceived intensity	4	1.1	1.1	97.2
	fire of med perceived intensity	7	2.0	2.0	99.2
	fire of high perceived intensity	3	.8	.8	100.0
	Total	354	99.7	100.0	
Missing	no response	1	.3		
Total		355	100.0		

Earthquake

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of quakes	316	89.0	89.3	89.3
	quake of undet or low perceived intensity	15	4.2	4.2	93.5
	quake of med perceived intensity	17	4.8	4.8	98.3
	quake of high perceived intensity	6	1.7	1.7	100.0
	Total	354	99.7	100.0	
Missing	no response	1	.3		
Total		355	100.0		

Typhoon hurricane tornado (THT)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of THT	308	86.8	87.0	87.0
	THT of undet or low perceived intensity	16	4.5	4.5	91.5
	THT of med perceived intensity	22	6.2	6.2	97.7
	THT of high perceived intensity	8	2.3	2.3	100.0
	Total	354	99.7	100.0	
Missing	no response	1	.3		
Total		355	100.0		

Flood

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of flood	336	94.6	94.9	94.9
	flood of undet or low perceived intensity	8	2.3	2.3	97.2
	flood of med perceived intensity	7	2.0	2.0	99.2
	flood of high perceived intensity	3	.8	.8	100.0
	Total	354	99.7	100.0	
Missing	no response	1	.3		
Total		355	100.0		

Snow

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no history of snow disaster	351	98.9	99.2	99.2
	snow of undet or low perceived intensity	1	.3	.3	99.4
	snow of med intensity	2	.6	.6	100.0
	Total	354	99.7	100.0	
Missing	no response	1	.3		
Total		355	100.0		

Appendix 4

Coding of variables in SPSS

1	Res1	1-5	resourcefulness
2	Res2	1-5	resourcefulness
3	Hlpls1	1-5	helplessness
4	Hlpls2	1-5	helplessness
5	Adpt1	1-5	adaptability
6	Adpt2	1-5	adaptability
7	Pres	1-4	perceived resourcefulness
8	Fplan1	1-4	planning for the future 1
9	Soccap	1-4	social capability
10	Anx	1-4	worry/anxiety
11	PHlpls	1-4	perceived helplessness
12	EmoCp	1-4	emotion-focused coping
13	SelApRes	1-4	selective application of resources
14	Padapt	1-4	perceived adaptability
15	PndsOne	1-4	perception of needs met by oneself
16	Cnflw/Oth	1-4	conflicts with others
17	Psocsupp	1-4	perception of strong social support
18	Fplan2	1-4	planning for the future 2
19	Relaff	1-4	relational affinity
20	PosAging	1-4	positive view of the aging process
21	Needsw/hlp	1-4	perc. of needs met with others' help

22	Exghlples	1-4	others exaggerate elder's helplessness
23	StEldVuln	1-4	stereotype elders as vulnerable
24	SitCon	1-4	situational control
25	Stress	1-4	stress
26	gender	m=1; f=2	gender
27	age	years old	age

age cohort 1=60-64; 2=65-69; 3=70-74; 4=75-79; 5=80-84; 6=85-89; 7=90+

28	MarStat	1-5	marital status
29	F/occup	see list below	former occupation
30	race	1=African Am 2=White Caucasian 3=Hispanic 4=Asian 5=Combination 6=Other	
31	income	1-16 by annual income	income
32	educ	last grade completed	level of schooling
	educational cohort (<HS degree; HS degree; at least some college +)		
33	yrsinhome	# of years in home	years in current residence
34	zip code	coded	zip code of residence
	senior center	coded	
35	#peopleinhome	# of people	number of people in home
36	disablvl	1-4	disabled? If yes, severity 1-4

37	happy?	1-3	self-appraisal, happiness
38	NeighCrLvl	1-3	perceived level of neighborhood crime

Coding of Victimization Variables

Robbery/theft/burglary (RTB)
0="no history of RTB"
1="RTB once"
2= "RTB twice"
3= "RTB more than twice"
999="no response"

RTBtime
0="not applicable"
1="1-2 years ago"
2="3-5 years ago"
3="6-10 years ago"
4="11-20 years ago"
5="21-30 years ago"
6="over 30 years ago"
999="no response"

RTBreact
1="low level of emotional control"
2="moderate level of emotional control"
3="high level of emotional control"
999="no response"

RTBrecov
1="not at all recovered"
2="somewhat recovered"
3="moderately recovered"
4="fully recovered"
999="no response"

Assault (Alt)
0="no history of assault"
1="assault, once"
2="assault, twice"
3="assault, more than twice"
999="no response"

Alttime
0="not applicable"
1="1-2 years ago"
2="3-5 years ago"
3="6-10 years ago"
4="11-20 years ago"
5="21-30 years ago"
6="over 30 years ago"
999="no response"

Altreact
1="low level of emotional control"
2="moderate level of emotional control"
3="high level of emotional control"
999="no response"

Altrecov
1="not at all recovered"
2="somewhat recovered"
3="moderately recovered"
4="fully recovered"
999="no response"

MFTA
0="no history of MFTA"
1= "MFTA once"
2= "MFTA twice"
3= "MFTA more than twice"
999="no response"

MFTAtime
0="not applicable"
1="1-2 years ago"
2="3-5 years ago"
3="6-10 years ago"
4="11-20 years ago"
5="21-30 years ago"
6="over 30 years ago"
999="no response"

MFTAreact
1="low level of emotional control"
2="moderate level of emotional control"
3="high level of emotional control"
999="no response"

MFTArecov
1="not at all recovered"
2="somewhat recovered"
3="moderately recovered"
4="fully recovered"
999="no response"

NMFTA
0="no history of NMFtrf"
1= "NMF once"
2= "NMF twice"
3= "NMF more than twice"
999="no response"

NMFTAtime
0="not applicable"
1="1-2 years ago"
2="3-5 years ago"
3="6-10 years ago"
4="11-20 years ago"
5="21-30 years ago"
6="over 30 years ago"
999="no response"

NMFTAreact
1="low level of emotional control"
2="moderate level of emotional control"
3="high level of emotional control"
999="no response"

NMFTArecov
1="not at all recovered"
2="somewhat recovered"
3="moderately recovered"
4="fully recovered"
999="no response"

UFTA
0="no history of UFtrf"
1= "UF once"
2= "UF twice"
3= "UF more than twice"
999="no response"

UFTAtime
0="not applicable"
1="1-2 years ago"
2="3-5 years ago"
3="6-10 years ago"
4="11-20 years ago"
5="21-30 years ago"
6="over 30 years ago"
999="no response"

UFTAreact
1="low level of emotional control"
2="moderate level of emotional control"
3="high level of emotional control"
999="no response"

UFTArecov
1="not at all recovered"
2="somewhat recovered"
3="moderately recovered"
4="fully recovered"
999="no response"

Fire
0="no history of being in a fire"
1="fire of undet or low perceived intensity"
2="fire of med perceived intensity"
3="fire of high perceived intensity"
999="no response"

Firetime
0="not applicable"
1="1-2 years ago"
2="3-5 years ago"
3="6-10 years ago"
4="11-20 years ago"
5="21-30 years ago"
6="over 30 years ago"
999="no response"

Firereact
1="low level of emotional control"
2="moderate level of emotional control"
3="high level of emotional control"
999="no response"

Firerecov
1="not at all recovered"
2="somewhat recovered"
3="moderately recovered"
4="fully recovered"
999="no response"

Quake (Qk)
0="no history of quake"
1="quake of undet or low perceived intensity"
2="quake of med perceived intensity"
3="quake of high perceived intensity"
999="no response"

Qktime
0="not applicable"
1="1-2 years ago"
2="3-5 years ago"
3="6-10 years ago"
4="11-20 years ago"
5="21-30 years ago"
6="over 30 years ago"
999="no response"

Qkreact
1="low level of emotional control"
2="moderate level of emotional control"
3="high level of emotional control"
999="no response"

Qkrecov
1="not at all recovered"
2="somewhat recovered"
3="moderately recovered"
4="fully recovered"
999="no response"

Tornado/hurricane/tornado (THT)
0="no history of THT"
1="THT of undet or low perceived intensity"
2="THT of med perceived intensity"
3="THT of high perceived intensity"
999="no response"

THTtime
0="not applicable"
1="1-2 years ago"
2="3-5 years ago"
3="6-10 years ago"
4="11-20 years ago"
5="21-30 years ago"
6="over 30 years ago"
999="no response"

THTreact
1=”low level of emotional control”
2=”moderate level of emotional control”
3=”high level of emotional control”
999=”no response”

THTrecov
1=”not at all recovered”
2=”somewhat recovered”
3=”moderately recovered”
4=”fully recovered”
999=”no response”
Flood (Fl)
0=”no history of flood
1=”flood of undet or low perceived intensity
2=”flood of med perceived intensity
3=”flood of high perceived intensity
999=no response

Fltime
0=”not applicable”
1=”1-2 years ago”
2=”3-5 years ago”
3=”6-10 years ago”
4=”11-20 years ago”
5=”21-30 years ago”
6=”over 30 years ago”
999=”no response”

Flreact
1=”low level of emotional control”
2=”moderate level of emotional control”
3=”high level of emotional control”
999=”no response”

Flrecov
1=”not at all recovered”
2=”somewhat recovered”
3=”moderately recovered”
4=”fully recovered”
999=”no response”

Snow
0=”no history of snow disaster”
1=”snow of undet or low intensity”
2=”snow of med intensity”
3=”snow of high intensity”
999=”no response”

Snowtime
0=”not applicable”
1=”1-2 years ago”
2=”3-5 years ago”
3=”6-10 years ago”
4=”11-20 years ago”
5=”21-30 years ago”
6=”over 30 years ago”
999=”no response”

Snowreact
1=”low level of emotional control”
2=”moderate level of emotional control”
3=”high level of emotional control”
999=”no response”

Snowrecov
1=”not at all recovered”
2=”somewhat recovered”
3=”moderately recovered”
4=”fully recovered”
999=”no response”

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