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HOPEFUL THINKING WITHIN ASPECTS OF SUCCESSFUL AGING: A STUDY OF OLDER ADULTS

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HOPEFUL THINKING WITHIN ASPECTS OF SUCCESSFUL AGING: A STUDY OF OLDER ADULTS

By

Lori A. Gray

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ABSTRACT

HOPEFUL THINKING WITHIN ASPECTS OF SUCCESSFUL AGING:
A STUDY OF OLDER ADULTS

By
Lori Ann Gray

The purpose of this project was to investigate the roles of hopeful thinking with other possible predictors of successful aging in older adults. Successful aging in this study is defined by the presence of self-responsibility for wellness behaviors and levels of self-reported life satisfaction. This quantitative study investigated hopeful thinking, education level, and self-evaluated life function as predictors of self-responsibility for wellness and life satisfaction in older adults. Supplemental qualitative data was analyzed to explore possible themes for the ways healthy older adults describe successful aging, to present the preventative behaviors and activities in which older adults engage, and to develop a portrait of older adults who age successfully. Results suggest that when older adults in this sample have higher levels of self-evaluation of life function and higher levels of hopeful thoughts, they also report higher levels of life satisfaction and self-responsibility for wellness behaviors, such as exercise, relaxation, social contact, etc. Self-evaluation of life function appears to be more strongly related to both dependent variables than level of hopeful thinking, however. Level of education was not significantly related to either life satisfaction or self-responsibility for wellness behaviors.

This dissertation is dedicated to the memory of my Grandmother, Aleen R. Tarrant.

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Several people were of invaluable assistance to me in completing this project, and I wish to acknowledge those individuals here.

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Chapter 1

INTRODUCTION

The History of Hope. The earliest story of hope quite possibly comes from Greek mythology and the story of Pandora's box. When Prometheus stole fire from the Gods, Zeus designed a plot of revenge. He sent Pandora to earth with a box that he told her to never open under any circumstances. In a demonstration of reverse psychology, Zeus knew that Pandora would not be able to resist opening the box, and she did so, releasing an army of ills on the earth, such as disease, plagues, hate, envy, spite and greed. Realizing the profound error she had made, Pandora rushed to slam the lid shut, and the sole remaining occupant in the box was hope. What is left open to interpretation is whether or not Zeus included hope as a means of remedying the ills, or simply as another source of human suffering. Regardless, it would seem that historically, hope has been conceptualized as a fleeting, abstract concept, or an illusion. Consider some well known quotes, such as from Benjamin Franklin: "He that lives upon hope will die fasting", or from William Shakespeare: "And so by hoping more they have but lesse." We have traditionally seen a more cynical, unsubstantial view of hope.

A Theory of Hope. For the past several decades, psychologists have attempted to reverse this cynical view of hope. A psychological theory of hope has evolved since the 1960s. Some of the earlier writings suggested that hope basically was a construct that included the general perception that goals could be met (Frankl,1963; Menninger, 1959; Stotland, 1969). These early theories suggested that individual behavior could be explained if one examined personal expectancies regarding goal attainment. Later theoretical developments included the view that positive goal expectancies led to mental

and physical health, whereas negative expectancies led to illness (Erickson, Post, & Paige, 1975; Gottschalk, 1974). These conceptualizations regarding hope did not emphasize or explain the process by which goals are pursued, nor did they challenge the assumption that human beings are always goal directed.

The Model of Hope. Most recently, in the mid-1980's, a model of hope was developed by Dr. Rick Snyder of the University of Kansas with the assistance of his colleagues. This cognitive model of hope has evolved through the work of asking people to share their thoughts about their goal directed thinking and behaviors. Hope, in this case, is defined as the "sum of perceived capabilities to produce routes to desired goals, along with the perceived motivation to use those routes" (Snyder, 2000, p.8). Stated in another way, hopeful thoughts tend to reflect the belief that one can identify pathways (strategies for a desired goal) and then become motivated to utilize those pathways to arrive at goal attainment.

Hopeful thinking appears to drive the emotions and well-being of people (Snyder, 2000). This is a cognitive process model that relates to emotions, but is not an emotion based construct. Snyder and his colleagues have suggested that positive emotions come from successful goal pursuits and the ability to overcome impediments, whereas negative emotions stem from unsuccessful goal pursuits and/or the inability to overcome existing goal blockages. Thus, it is proposed that goal-pursuit oriented cognitions result in emotions (Snyder et al, 2001).

Specifically, Snyder's model of hope, which is used in this project, consists of three major components: Goals, pathways-thinking, and agency-thinking (Snyder, Rand, & Sigmon, 2002). Goals may be either short or long-term goals, and should not feel

easily obtainable, but realistic and challenging. An optimal level of challenge is critical in the goal setting component. Pathways-thinking refers to the routes, or strategies that a person must devise in goal attainment attempts; flexibility and the willingness to shift paths is an important piece in the process of pathways-thinking. Agency-thinking refers to the will power, or the motivational aspects of goal attainment. So the components of the "will" and the "ways" together influence goal seeking behavior and hopeful thoughts.

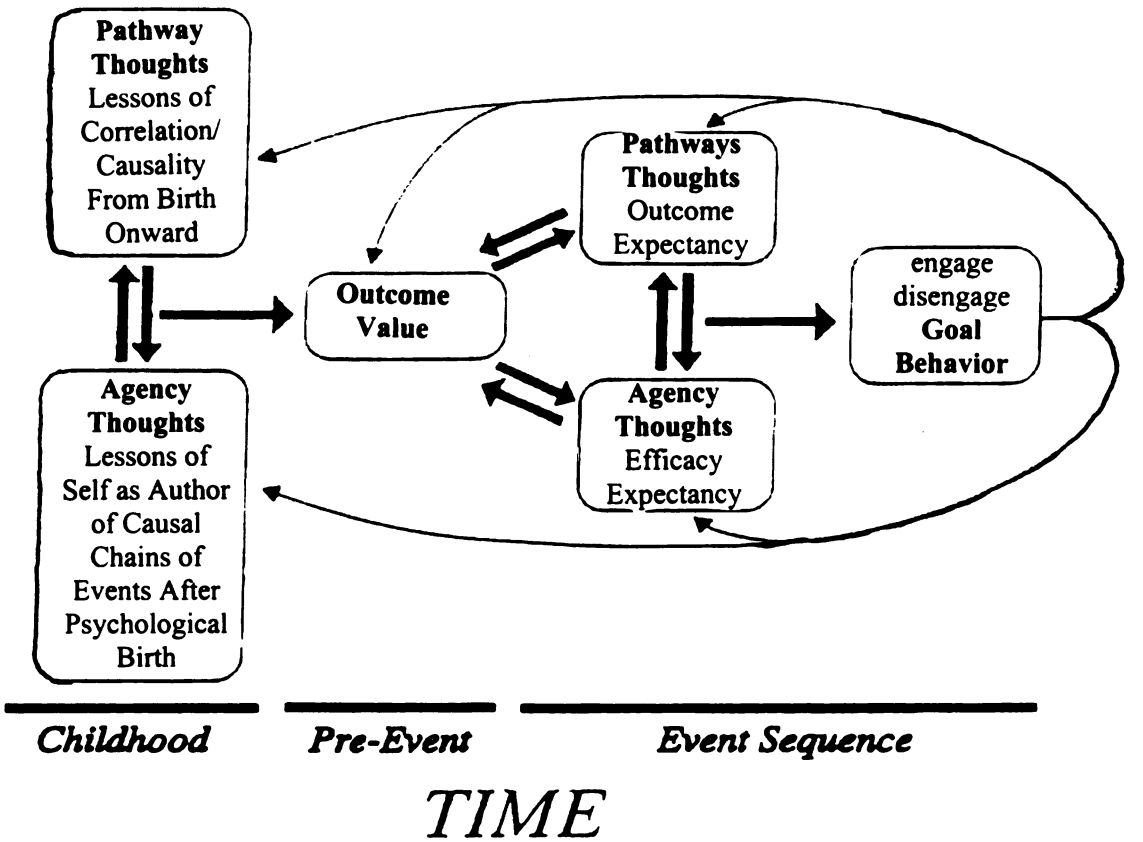

Figure 1: The cycle of hopeful thoughts (Snyder, 2001)

Figure 1 demonstrates a visual, flow-chart depiction of hope theory, where moving from the left to right over the course of time, one can see the sequence of goal-directed thinking as it unfolds (Snyder, 2000). To the far left is the epistemiology of the source of pathways and agency thoughts. Essentially, pathways thought begins at birth as a newborn constructs ideas of how items go together in a sequence, and these lessons

later become concepts about causality through the childhood years and beyond. These pathways and agency thoughts function together to lead to an individual's attachment of value to the desired goal outcome. If a certain outcome goal is important enough to incite the continuation of cognitive processing, the person will then begin the event sequence in which the thoughts of agency and pathways are initiated. The bidirectional arrows demonstrate the manner in which both types of thinking drive toward the engagement or disengagement to the desired goal. After an individual has completed a particular goal pursuit, the resulting engagement/disengagement process, and the related goal attainment or non-attainment, the thinking process then will return back to influence pathway and agentic thoughts. The cycle then moves forward again.

Successful Aging. Hope may have a positive and health promoting role in several aspects of living, including the aging process. The prevalence of older adults in America is increasing the need and interest in healthy and adaptive aging, otherwise known as "Successful Aging". There are common misconceptions emphasizing the negative aspects of growing old. Disease, disability, and psychopathology have been researched widely, but much is still to be learned about healthy older adults. It is theorized that hope plays a significant role in the aging process. Also, it has been suggested that good physical health and life satisfaction are associated with high levels of hope, and that low hope is associated with an increase in physical symptoms and lower levels of life satisfaction (Cheavens & Gum, 2000). These hypotheses have never been tested empirically.

Purpose of the Study

The purpose of this project was to investigate the role of hopeful thinking combined in a predictive model to predict outcomes of successful aging in older adults.

This study investigated hopeful thinking, education level, and self-assessed life functioning as predictors in levels of self-responsibility for wellness and life satisfaction in older adults through quantitative analyses. Supplemental qualitative data was also analyzed to explore possible themes for the ways healthy older adults describe the way they establish goals, overcome goal blockages, and maintain a healthy sense of well-being, thereby aging at optimal levels.

Research Questions

Specific quantitative and qualitative research questions focused on achieving this purpose were as follows:

Quantitative questions:

1. What are the relationships among hope, level of education, and self-evaluation of life function with aspects of successful aging (life satisfaction and self-responsibility for wellness) in this sample of older adults?
2. Is self-evaluation of life function predictive of successful aging (as defined by life satisfaction and self-responsibility for wellness) in this sample of older adults?
3. Is level of education predictive of successful aging in this sample of older adults?
4. Is level of hope predictive of successful aging in this sample of older adults?
5. After taking education into account, does hopeful thinking and self evaluation of life function significantly add to the prediction of successful aging in this sample of older adults?
6. After taking education and self evaluation of life functioning into account, does hopeful thinking significantly add to the prediction of successful aging in this sample of older adults?

Several hypotheses were also be examined. These are as follows:

1. There is a conceptually positive relationship between hopeful thinking and life satisfaction in this sample of older adults.
2. There is a conceptually positive relationship between hopeful thinking and self responsibility for wellness in this sample of older adults.
3. There is a conceptually positive relationship between education level and life satisfaction in this sample of older adults.
4. There is a conceptually positive relationship between education level and self-responsibility for wellness in this sample of older adults.
5. There is a conceptually positive relationship between self-evaluation of life function and life satisfaction in this sample of older adults.
6. There is a conceptually positive relationship between self-evaluation of life function and self-responsibility for wellness in this sample of older adults.
7. The degree of self-evaluation of life function is predictive of life satisfaction in this sample of older adults.
8. The degree of self-evaluation of life function is predictive of self-responsibility for wellness in this sample of older adults.
9. The level of hopeful thinking is predictive of life satisfaction in this sample of older adults.
10. The level of hopeful thinking is predictive of self-responsibility for wellness in this sample of older adults.
11. The level of education is predictive of life satisfaction in this sample of older adults.

12. The level of education is predictive of self-responsibility for wellness in this sample of older adults.
13. Hopeful thinking and self-evaluation of life function significantly add to the prediction of life satisfaction after accounting for education.
14. Hopeful thinking and self-evaluation of life function significantly add to the prediction of self-responsibility for wellness after accounting for education.
15. Hopeful thinking significantly adds to the prediction of life satisfaction after accounting for self-evaluation of life function and education.
16. Hopeful thinking significantly adds to the prediction of self-responsibility for wellness after accounting for self-evaluation of life function and education.

Supplemental qualitative questions:

1. What do older adults feel supports and promotes successful aging?
2. How do older adults compare their current goal setting behavior to how they have striven for goal attainment in the past?
3. What kinds of preventative health behaviors do older adults engage in to help themselves retain health and a sense of well-being?

The results of this study have many potential positive applications within the field of counseling psychology. Given the emphasis which counseling psychology places upon optimal levels of well-being across the lifespan, information regarding healthy aging could inform the way we train students, work with clients, and conduct future research. The area of successful aging has significant relevance for counseling psychologists.

Chapter 2

LITERATURE REVIEW

In this chapter I will present an organized literature review as it is relevant to the current study. The review will begin by first placing hope theory within the larger context of positive psychology and its emphasis on enhancing individual strengths and life satisfaction. Next, I will review the theoretical and empirical literature concerning hope theory. The review will then examine successful aging in the older adult population, and the role which hope may play in the aging process. Finally, an argument for aspects of successful aging and hopeful thinking as predictors in increased life satisfaction, and increased self-responsibility for wellness will be established.

Positive Psychology

It is helpful to put this theory of hope within the larger lens of Positive Psychological theory. In January of 2000, the American Psychologist published a special issue on the topic of Positive Psychology. This issue signaled an emergence of interest in the development of a science of "positive subjective experience, positive individual traits, and positive institutions", which promised to "improve quality of life and prevent the pathologies that arise when life is barren and meaningless" (Seligman & Csikszentmihalyi, 2000, p.12). The contributing psychologists in this issue purported a gap in the knowledge base of psychological theory and predicted that this century would bring a science and practice of positive psychology which would support and build an understanding of factors that could allow "individuals, communities, and societies to flourish" (Seligman & Csikszentmihalyi, 2000, p.5).

The basic message underlying the positive psychology movement is clear: Psychologists know a great deal about pathology and the weaknesses of the human experience, but very little is known about what makes life worth living, or what constitutes happiness and positive growth. Some of the common questions posited by positive psychology include: What makes a good life? How do typical people survive and thrive under difficult conditions? How do people flourish? What encourages positive traits, such as happiness, creativity, hope, contentment, satisfaction, courage, forgiveness, and wisdom? The purpose of positive psychology is to initiate a change in the emphasis of psychology from preoccupation with repairing the worst things in life to creating and promoting positive, life-enhancing qualities. Rather than a medical model stance of repairing after the damage has been done, positive psychology values holism, wellness, and subjective experiences.

Positive psychology takes a strong stance on prevention as well. This prevention perspective also focuses on building individual strengths and competencies, rather than on correcting or rehabilitating weaknesses or mental illnesses. Is it possible to prevent problems such as school related violence, depression and schizophrenia? Prevention research has shown that human strengths can act as a buffer to prevent the development of mental illness; part of this work requires a deeper, empirical understanding and a knowledge of how to introduce and promote these virtues in people.

Of course, these ideas are not new to the field of psychology, for example, humanistic psychology emphasizes human potential and growth. However, a body of empirical, rigorous research to support and ground psychological theories never emerged, and these ideas never gained solid professional ground. Seligman and Csikszentmihalyi

(2000) never claimed originality to these ideas, but rather suggest that now is the time to embrace a science, as well as practice of positive psychology.

Hope is but one of many members within the positive psychology family. This emerging body of theories offers a number of lenses through which to view human strengths. Because of the work of Snyder and his colleagues, hope has become one of the more prominent constructs in recent years, though much research is yet to be done on this potentially valuable construct.

Conceptual Writing and Research on Hope

Refining the Hope Construct. It is important and necessary to distinguish the similarities and differences between hope and other similar constructs within the field of positive psychology. One such investigation looked at the "will" and "way" components of the hope construct and researched the relationship between these components compared to the constructs of self-efficacy and optimism, as well as the power of hope, self-efficacy and optimism combined to predict general well-being (Mageletta & Oliver, 1999).

Results of this study suggested that will, ways, optimism, and self-efficacy were related constructs, but also were not identical constructs. Specifically, a maximum-likelihood factor analysis suggested that will, ways, self-efficacy and optimism were independent and distinct concepts. Multiple regression analyses results for the purpose of predicting well-being suggest that hope predicts unique variance apart from self-efficacy and optimism, the "will" component predicts unique variance independent from self-efficacy, and the "ways" component predicts unique variance apart from optimism. The results of this study suggest that hope can be used to predict well-being independently of

optimism and self-efficacy. There are a few limitations to this study, however. There is a limit in the ability to generalize results, because the convenience sample yielded high proportions of women as well as Catholic participants. It is also limited to the particular operationalizations used in the study, with only one measure for each variable used to comprise the comparisons.

Hope, conceptually speaking, is related to other positive psychology constructs which stress the importance of individual expectancies and their role in the mediation of goal-directed behavior, such as theories of optimism (Seligman 1991; Scheier & Carver, 1985), self-efficacy (Bandura, 1982), self-esteem (Hewitt, 1998), and problem solving (Heppner & Hillerbrand, 1991). In fact, for the sake of convergent validity it is expected that there will be some overlap and similarities between hope and other constructs because all are considered part of the positive psychology "family", with its emphasis on providing physical and psychological benefit to people. At the same time, hope must have some distinctive differences for the purpose of discriminant validity.

Each of these theories has specific operative processes in common, but they vary in terms of the processes that are explicit parts of the theory, and which processes are emphasized. These central processes are attributions, outcome value, goal-related thinking, perceived capacities for agency related thinking, and perceived capacities for pathways related thinking (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, Yoshinobu, Gibb, Langelle, & Harney, 2001).

What can be seen by this style of comparison is that hope theory is unique in its constellation of emphases and explicit components of goal-related thinking, combined with perceived capacities for agency and pathways related thinking. In contrast,

optimism, according to Seligman (1991), emphasizes attributions; additionally, Scheier and Carver's theory of optimism (1985) emphasizes agency thoughts as part of goal-related thinking. Self-efficacy theory is similar to this latter conceptualization of optimism, but also considers pathways related thinking, though not as much as hope theory considers this component. Problem solving emphasizes goal related thinking, and a pathway related thinking, but doesn't consider agency related thinking. Finally, self-esteem theory probably has the least in common with hope theory, with the implicit consideration of outcome value and goal- related thinking.

These theoretically based similarities between these constructs are supported by modest correlations between hope measures and the scales that have been developed for each of the other theories, but the unique constellation of emphases represented by the hope construct defines its distinction from its "family" members.

False Hope. It is necessary to explore the conceptualization of "false hope" as well. It has been noted in the positive psychology literature that optimal levels of these positive constructs are very important in regards to their level of efficacy (Snyder & Mccullough, 2000). Is there a point when having hope is not helpful or realistic? A conceptual article addresses the current criticism directed towards false hope (Snyder, Rand, King, Feldman, & Taylor, in press). It appears that some of the controversy surrounding hope involves the issue of specifically *how* one defines hope, for example as an emotionally based construct versus a cognitive-based construct.

According to the current literature, false hope occurs under three conditions: 1)When illusions rather than reality influence expectations and response strategies (Beavers & Kaslow, 1981); 2)Goals pursued are inappropriate ones (Murrell & Norris,

1983); and 3)When poor strategies are used in the effort to reach goals (Kwon, 2000, in press). These criticisms do not appear to be appropriately directed towards this specific model of hopeful thinking, and the authors refute the criticism quite effectively. For example, high hope people theoretically can make positive use of illusion, and hopeful thinking does not involve distortions of reality. According to Snyder (1998), part of thinking in a hopeful way requires the awareness that some goals are not attainable, which is still a reality based perspective. The second concern involves the question of realistic goal-setting. Again, the authors respond with a more optimistic tone, pointing out that the higher hope people who set high goals often achieve them (Snyder, Harris, et al., 1991). Also, having high-hope involves having the flexibility and willingness to develop and pursue several pathways for goal attainment, thereby increasing the likelihood of achieving a lofty goal. This rationale leads to the third criticism of false hope, which is the issue of poor or absent strategies in achieving goals. This criticism is probably the weakest, because the definition of hope in Snyder's model implies the existence of pathways, or effective strategies. The authors conclude that high hope, as conceptualized by the authors of hope theory, plays a consistent role in promoting adaptation and beneficial outcomes for individuals, and that "false" hope does not exist (Snyder et al., 2000).

Hope Theory and Cross-Culturalism. Finally, it is important to place Hope Theory within the context of cultural and ethnic diversity. Hope, like any other psychological construct, cannot be fully comprehended without consideration of the cultural and sociological context from which it is a part (Averill, Catlin, & Chon, 1990). Nearly every culture can demonstrate symbols and stories about hope, but it is necessary

to consider the specific ways in which people from different cultures and ethnic groups transfer hopeful thoughts into paths, goals and agentic thoughts. "Playing the hope game" as it has been termed in the literature (Lopez, Gariglietti, McDermott, Sherwin, Floyd, Rand, & Snyder, 2000) can seem unpredictable and more complicated for some. The "game" has been compared to the "Caucus-race" with the Dodo Bird in Lewis Carroll's *The Adventures of Alice in Wonderland,* a game in which there are no rules or clear points to follow, and many adversities to overcome (Lopez et al., 2000; Luborsky, Singer, & Luborsky, 1975). In the case of diverse populations, it's possible that goal barriers are more prevalent and can be more difficult to overcome.

There is a need for empirical research in this area; to this point the relevance and ability to apply a theory of hope cross culturally is limited. What we do know, however, is that there are specific value orientations which are reflected in hope, and the definitions of hope vary across culture (Lopez et al., 2000; Averill, Catlin & Chon, 1990). The same statement is true for the representative constructs in the area of positive psychology, and more research is necessary to understand and utilize cross-cultural applications of these ideas. We cannot take a prescriptive approach to finding the "good life", as positive psychologists call it. What is "good for one is not good for all" (Lopez, Prosser, Edwards, Magyar-Moe, Neufeld, & Rasmussen, 2001, p. 711).

In the year 2000, a Handbook of Hope was published, edited by Snyder. The Handbook of Hope is the most extensive collaborative collection of writings on the subject of hope theory. Aside from an elaborate review of the development of hope theory, the handbook provides a conceptual framework for the development of hopeful thinking, as well as what might occur when an individual loses hope. The issues of

measuring hope are also addressed in the handbook, as well as suggestions for theory based applications in psychotherapy, and applications for special populations, such as children, older adults, disabled persons, and ethnically diverse populations.

For the purpose of a critical review of the conceptual writing and empirical research on hope theory, Snyder summarizes and synthesizes research results within several major categories: Performance (academic and athletic), human connection, psychological adjustment, psychotherapy, life meaning and physical health (Snyder, Rand, & Sigmond, 2001). I will adopt a similar format for the purposes of a concise review of the writing and research on the hope construct. Research related to the specific research topic will be covered in more detail through the development of this review.

Hope and Performance. One part of thriving in our culture usually entails the ability to learn and perform successfully. Based on the research available, it would appear that hope and academic achievement have a strong positive relationship (Snyder, Cheavens, & Michael, 1999).

A study involving college students investigated the possible relationship between hope levels and academic success in college (Snyder, Cheavens, Pulvers, Adams, & Wiklund, unpublished manuscript). College students were administered the Hope Scale at the time they entered college. 808 college students completed the hope scale during the first week of classes. Data were later separated by gender and then by levels of hope into three groups (high, medium, and low levels). At the completion of the semester, the students provided information about their grade point average, graduation status and ACT scores. Results suggested that higher levels of dispositional hope predicted higher grade point averages, at a significant level. Higher hope students were also more likely to

graduate and not disenroll from college due to poor grade performance. The implications of these results are compelling, but the authors felt that the sample size was relatively small, and generalizability beyond the college population was limited. Additionally, the authors note that the Hope Scale scores could account for only 5% of the variance in the students' grades, making interpretation of the results less certain.

Nevertheless, research results suggest that hopeful thinking could be a significant predictor for levels of school achievement. Students could benefit through a variety of applications of hope theory. For example, students who score low on hope could partake in a hope promoting "intervention" to assist in raising their hopeful thinking. Additionally, hope promotion could be used in a preventative role, for all students at a variety of ages, in order to promote goal directed thinking and thereby perhaps avoiding academic pitfalls. There are already existing examples of such programming, such as a hope promotion program designed for junior high school students in a public school in Kansas (Lopez, Bouwkamp, Edwards, & Pedrotti, 2000). These students are taught age-appropriate strategies for developing goal-oriented thoughts, choosing strategies for reaching those goals, overcoming goal blockages, and persevering through challenge.

A study which investigated the role of hope in academic and sport achievement studied trait and state levels of hope in college athletes and non-athletes (Curry, Snyder, Cook, Ruby, & Rehm, 1997). Results suggested that both male and female athletes had higher levels of trait hope than nonathletes. In addition, hope levels significantly predicted higher grade point averages and higher levels of self-worth in female college athletes. Another interesting result suggests that the Hope Scale scores provide information beyond natural athletic ability that serves to significantly predict actual

athletic achievements in female athletes. This study is limited, however, in its generalizability beyond the population of college age cross country and track athletes.

Conceptually, hope theory can offer a significant contribution to sports psychology, but more research in this area is required. Essentially, hope theory hypothesizes that if two athletes have similar ability, the one with higher hope will still perform better, especially in cases of challenge or adversity (Snyder et.al., 2001). Theoretically, students should be able to increase their ability to find multiple paths to reach their desired educational and athletic goals through increased hopeful thinking. Additionally, with hope, students should be able to stay motivated to goal completion, with less interference from negative thoughts and emotions (Snyder, 1999).

Human Connection. It has also been theorized that human connection is part of what promotes hopeful thinking, for example, promoting hope in children through contact with their peers, teachers and guardians (Snyder, Cheavens, & Sympson, 1997). Because goal seeking often occurs within a social context, connection with other people seems necessary and fundamental.

Research suggests that high-hope people appear to value and seek out human connection more than low-hope individuals and seem to genuinely enjoy their contact with others (Snyder, Hoza, Pelham, Rapoff, Ware, Danovsky, Highberger, & Stahl, 1997). High-hope individuals feel that they can call on their friends when they need social support. The friends of low-hope people, on the other hand, tend to also have low levels of hopeful thinking, perhaps serving only to mutually support further low hope kinds of thinking, a cohort of "pity-parties" (Snyder et al., 1997).

Furthermore, research suggests that higher levels of perceived social support is related to higher hope levels (Barum, Snyder, Rapoff, Mani, & Thompson, 1998). This particular investigation involved hope and social support in the psychological adjustment of burn injury survivors. The sample consisted of 29 adolescents, ranging in age from 13 to 19 years. Predictor variables of hope and social support were examined in relationship to psychosocial outcomes. Results of multiple regression analyses suggested unique variance for higher hope and social support to the prediction of self-worth. Higher hope and perceived social support were correlated (R=.48). Hope levels predicted unique variance for lowering externalizing behavior problems in the sample compared to a control group. This, along with other research results, provides support for the value of hope as a potential intervention option, in addition to the value of social support in adjustment. Also, this particular study suggests that both social support and hope work together to promote adjustment and self-esteem. The limitation of a small sample size in this study prevented further exploration of unique predictors of adjustment, but provides some compelling hypotheses regarding hope and social support.

In addition, high-hope individuals appear to have high social competence (Snyder, Hoza, et al., 1997), as well as an ability to be interested in the goals of those around them, with an increased ability to take on the perspective of others (Snyder, Cheavens, & Sympson, 1997).

Hope and Psychotherapy. Hope theory has numerous applications within the realm of counseling and psychotherapy as well. Frank and Frank(1991) suggested that hope was perhaps a common denominator across psychotherapeutic models. The Dodo Bird's verdict (Luborsky, Singer, & Luborsky, 1975) is a popular way of explaining the

mystery of the similar outcomes of all major models of therapy. In Lewis Carrol's book "Alice in Wonderland", the Dodo Bird declared at the end of a contest: "All win, and all must have prizes". Snyder and Taylor (2000) suggest that hope may be the common factor in therapy approaches. The work that takes place between therapist and client of forming goals is utilizing goal directed, hopeful thinking in order to assist the client. It could also be implied that an individual has difficulties, experiences negative emotions and seeks out counseling due to goal blockages (Snyder & Taylor, 2000). These authors also connect agentic thinking with an increase of motivation in therapy, and pathways thinking with an increased sense of being able to find strategies to reach their goals, solve their problems and thereby improve their lives. Finally, it is suggested that counselors in training could benefit from an initial training in a hope-utilizing framework, and then build upon that framework with their preferences for theoretical orientation (Snyder & Tayor, 2000).

Research suggests that clients who have a higher baseline level of hope experience more positive outcomes from therapy (R squared = .50, $F(3,26) = 8.50, p \leq .05.$), providing further evidence for the potential value of an initial hope assessment and possible intervention when a client enters therapy (Irving, Cheavens, Snyder, Gravel, Hanke, Hilberg, & Nelson,unpublished manuscript). In this study, a sample (N=98) of clients completed hope assessment before, during, and after 12 weeks of psychotherapy. The clients whose baseline hope levels were higher in agency reported positive changes early on in therapy, and those who had high pathways scores reported positive changes in later therapy.

While hope theory could be considered a metatheory, it does share common characteristics with cognitive-behavioral models. The components of Snyder's theory of hope (1989), goals, agency and pathways are perhaps part of understanding the efficacy of cognitive behavioral treatment for certain conditions. With an emphasis on goal formation and direction from the therapist, CBT interventions lean strongly towards goal attainment and finding strategies (pathways) to arrive at goals. Perhaps by doing so, CBT approaches engender hope in a more explicit way, which may also be part of the empirical validation that is seen in these treatments (Taylor, Feldman, Saunders, & Ilardi, 2000).

The empowering potential of hope promotion in therapy has been noted in the world of feminist therapy as well (Sympson & Elder, 2000). Feminist therapy may address blockages of goals in ways that other therapies do not, connecting blockages to oppression due to gender, as well as the ability and right to pursue individual goals regardless of gender. Hope could be playing a mediating role in the empowering aspect of the feminist therapeutic model.

It has also been suggested that hope theory could be effectively applied to brief therapeutic models, specifically problem-solving and solution focused therapy (Michael, Taylor, & Cheavens, 2000). Several common components are identified between hope theory and these models; specifically keeping the primary focus on cognitive operations, but also acknowledging the important roles of emotions and behaviors. Both brief therapeutic approaches also emphasize goal directed thinking and look to the client to take on an active, collaborative role in the therapeutic encounter. In problem-solving models, clients are trained and instructed in the development of cognitive skills, thereby

increasing pathways and agentic thinking. Solution focused thinking is future oriented, and a mindset of positive expectational thinking is emphasized, which is hopeful thinking. Clients are assisted in thinking through their difficulties (blockages) and are encouraged to develop several strategies for reaching their goals. Through techniques such as the "Dream Question" (when clients are asked to describe what the resolution of their difficulties might look like), clients are enabled to initially identify their goals more clearly. It is suggested that hope theory accounts for the increase in hopeful thinking that is commonly seen as a result of these brief interventions (Michael et al., 2000).

A specific model of hope therapy has evolved from hope theory into the initial development of specific intervention strategies (Lopez, Floyd, Ulven, & Snyder, 2000). The goal of hope therapists is to help "clients build a house of hope" (Lopez et al., 2000, p.124). In this chapter of the Handbook of Hope (Snyder, 2000), the authors define the basic assumptions and principles of hope therapy, and provide suggestions for therapists in how to get started utilizing hope therapy. Being a hopeful helper is considered fundamental in hope therapy, and the authors encourage therapists to conduct a self-assessment of their own dispositional levels of hope, and to increase hopeful thinking if necessary. It has been noted that hopeful therapists tend to transfer hope to their clients more readily than less hopeful therapists (Lopez et al., 2000).

A hope therapist first focuses on instilling hope in a client, and then facilitates the client's process of increasing levels of hopeful thinking. Techniques from solution focused therapy, problem solving therapy, narrative therapy and cognitive behavioral therapies are often utilized by hope therapists. The therapeutic experiences of these techniques are interpreted specifically from a hope theory perspective. Through focusing

on hope, and emphasizing the positive in therapy, hope therapy clients will increase the positive in their life, as opposed to simply reducing the negative, which is the framework many other therapeutic approaches tend to emphasize.

Several theoretical chapters in the Handbook of Hope suggest the potential contributions of hope theory for treating special populations, such as those with eating disorders (Irving & Cannon, 2000), survivors of severe trauma (Sympson, 2000), clients with anxiety disorders and panic attacks (Michael, 2000), and depressive individuals (Cheavens, 2000). There are also a number of possible applications within the realm of health psychology; these will be addressed later in this review.

Hope and Meaning. Part of making individual change and developing a sense of well-being may facilitate the effort of making meaning out of life and daily living. Hope theory provides some possible implications for meaning making. Research suggests that hope theory offers us a unique way of looking at the nature of meaning. Feldman and Snyder (unpublished manuscript) found that the Hope Scale scores correlated with three measures of meaning in the .70 to.76 range. The authors suggest that this strong relation could occur because we must self-reflect on our goals and our work towards those goals, and from this we are constructing life meaning.

Hope and Adjustment. Coping and psychological adjustment is another realm with which the hope construct is strongly intertwined. Coping, essentially, is the ability of an individual to respond in a healthy manner to a stressor so as to reduce or prevent psychological pain (Houston, 1988). When looking at stressors from the perspective of hope theory, one could surmise that the stressor is representative of goal blockages (Snyder, 2001). When experiencing this blockage, it is important to have flexibility for

seeking out new strategies (pathways) and finding the volition (agentic thinking) to continue striving for goal attainment. This is an experience of psychological adjustment, and coping. It has been theorized that high hope people are better able to form alternative strategies than low hope individuals (Snyder, 2000).

Therefore, it is not surprising to see research results suggesting that higher hope people have better coping abilities. For example, higher hope people appear less likely to utilize avoidance to cope with their problems (Suls & Fletcher, 1985). This hypothesis is the result of a meta-analysis conducted by the authors on the body of efficacy research regarding avoidant and nonavoidant coping strategies.

When faced with difficulties and adversity, higher hope people are also more likely to find some benefit in their challenging experiences (Affleck & Tennen, 1996). The authors preliminary research on 35 subjects revealed that those who measured higher on the dispositional hope scale were more likely to agree with statements that imply finding benefit in dealing with adversity, in this case, coping with Fibromyalgia. The pathways hope scale correlated with a measurement of benefit-finding at $r = .37$, $p < .05$ for these individuals.

Hope and coping with loss. Throughout life, it is necessary to adapt and cope with many different types of loss, with some perhaps experienced more intensely than others. From the hope theory perspective, loss could be defined as a goal removal; something we desire is no longer a possibility (Snyder, 1996). Whether it is the loss of a job, the death of a spouse, or the loss of physical ability, it is necessary to utilize our ability to use goal directed thinking to help us to overcome and adjust to the loss. Snyder (1996) suggests that the goal removal of the lost goal object is just the first step; we must also consider

the impact of this goal removal on pathways and agentic thoughts. The strategies and patterns normally utilized for seeing a loved one no longer will be effective when the loss of that person occurs, through death or divorce, for example. Recognizing how useless these pathways are can intensify the emotional experience of loss (Snyder, 1996).

Higher hope people may be better able to cope with loss and restructure their hopeful thinking as they adjust to change and loss. When pathways thinking can take a new, alternate route, and agentic thought can motivate, a person can experience hopeful thoughts again.

The existence of pathways thinking was found to be significantly predictive of lower psychosocial impairment and depression in those who had traumatically lost physical abilities, suggesting that hopeful thinking can affect the ability to adapt to physical disability and to function socially (Elliot, Witty, Herrick, & Hoffman, 1991). This study involved an investigation into the use of reality negotiation strategies in 57 participants who had acquired physical disabilities as a result of trauma. The researchers hypothesized that a hope pathways score would predict lower levels of depression and psychosocial difficulties. Results supported this hypothesis (correlation with depression, $r = -.32$, $p<.01$, and correlation with psychosocial impairment, $r = -.44$, $p<.001$).

When experiencing loss, it is expected that hopeful thoughts would dissipate, but over time, new goals emerge, and pathways and agentic thinking follows, leading a person through a cycle of bereavement, and ultimately back to hope again. Snyder (2000) refers to this cyclical life process as a "Hope Mandala" (p. 129).

Influence of hope in psychological adjustment. Hope can promote psychological adjustment in other respects as well. A pattern of frequent positive thoughts is the norm

for those with high hope, as well as retaining and internalizing positive self-statements they hear from others (Snyder, Sympson, Ybasco, Borders, Babyak & Higgins, 1996). In an attempt to develop and validate a State Hope Scale, the authors designed studies to relate the State Hope Scale to other measurements in order to establish concurrent and discriminant validity. Four hundred and forty-four college students completed assessments of hope along with several other assessments to measure self-esteem, positive affect, and negative affect. Levels of hopeful thinking correlated positively with positive emotions ($r = .65$, $p<.01$), and correlated negatively with negative emotions ($r = -.47$, $p <.05$) (Snyder et al., 1996).

High hope individuals enjoy a challenging goal pursuit, whereas those with low hope tend to give up and feel overwhelmed by challenging goals (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, Yoshinobu, Gibb, Langelle, & Harney, 1991). This investigation was conducted for the purpose of developing and validating an individual-differences measure of hope. Three hundred and eighty-four college students completed hope scale measurements along with a number of other assessments to assess perceptions of control, social desirability, impression management skills, self-worth and goal related behaviors. These individuals reported a higher sense of social desirability and positive impression management skills, and had a greater sense of self-worth, suggesting that high hope individuals have a more optimistic and favorable picture of their current and future status than low hope individuals. This may contribute to a phenomenon referred to as "positive self-illusions", a coping strategy used to deal with adverse experiences (Snyder, Cheavens, & Michael, 1999).

Snyder (2000) asserts that hopeful thought is an absolute necessity for both psychological and physical health. Hope gives individuals greater capabilities to define clear goals, develop strategies, and remain motivated to strive for goal attainment. This is considered a critical part of coping and adapting.

Hope and Health Psychology. As mentioned earlier in this review, hope theory has a number of possible health psychology applications. Hopeful thinking has been shown to play a role in the major emphases of health psychology, that is, in the realms of health promotion, prevention, the treatment of illness, and coping with illness. As mentioned earlier, hope theory has a number of possible health psychology applications. Some preliminary research has taken place, with some intriguing implications. Hopeful thinking has been shown to play a role in the major emphases of health psychology, that is, in the realms of health promotion, prevention, the treatment of illness, and coping with illness.

Hope and Health Prevention. Hope could serve a powerful role for both primary and secondary prevention efforts, on both physical and psychological levels (Snyder, Feldman, Taylor, Schroeder, & Adams, 2000). These efforts could take place at an individual, group, or societal level.

There are also two dimensions of prevention, namely primary and secondary prevention. Primary prevention includes the promotion of behaviors or thoughts that are meant to reduce the chances of physical or psychological problems occurring in the future (Heller, Wyman, & Allen, 2000). Secondary prevention efforts come into play after a problem has already emerged, seeking to reduce or eliminate the problem (Snyder et al., 2000).

Research on hope and primary prevention at the individual level suggests some promising results. For example, a study on 115 college women's hope levels and their knowledge of cancer suggested a positive relationship between hopeful thoughts and number of cancer facts known (Irving, Snyder, & Crowson, 1998). This relationship was significant (R-squared = .05, t = 2.48, p = .015), even when the researchers controlled for other possible contributing variables, such as academic performance or amount of contact with people who have cancer. Also interesting was the finding that higher hope women reported a greater likelihood of participating in cancer prevention behaviors when compared with low hope participants (Irving, Snyder, & Crowson, 1998).

If one accepts the role of knowledge as a prevention strategy, hope appears to play a role in this relationship. High hope people appear to use knowledge about illness to prevent problems and to help themselves through preventative behaviors such as regular physical exercise. Though it has yet to be tested empirically, it has been suggested theoretically that higher hope people should be more likely to have a healthy lifestyle, to avoid preventable health and life crises, and to cope better with adversity and stress (Snyder et al., 1991). Perhaps the old adage "what you don't know won't hurt you", should be revised to "what you *do* know won't hurt you".

As mentioned previously in this review, hope is a part of the coping process, and this is related to secondary prevention efforts. Coping optimally with chronic illness, persistent chronic pain, disability and terminal illness requires hopeful thinking. Once facing a physical problem, it is hypothesized that high hope people seem to show more assertiveness and focus on finding strategies to adapt and regain health. It is suggested that low hope people, on the other hand, tend to focus on themselves in ways that

increase their anxiety and stress levels, thereby reducing the ability of the body to heal, and they also tend to engage in sympathetic indulgence (Hamilton & Ingram, 2001). As was previously mentioned within the realm of psychological adjustment, we see more avoidance strategies employed by low hope people as well, which is generally considered maladaptive (Snyder & Pulvers, 2001).

Hope and Illness. Research has been conducted on a number of populations to further explore the facilitating role that hope plays in coping with chronic health conditions and related stressors. From a general perspective, results suggest that hope is related to more optimal adjustment in individuals coping with chronic illness and various disabilities.

As mentioned earlier in this review, physical disability survivors, for example, appear to cope effectively and adjust better when they have higher levels of hope (Elliot, Witty, Herrick, & Hoffman, 1991). This study, focusing on reality negotiation after loss of physical ability, was conducted on 57 people who became physically disabled. The authors predicted that a sense of agency would be predictive of less depression and psychological difficulties very soon after the injury occurred, and that increased sense of pathways would significantly predict less depression and physical impairment regardless of time after injury. The results supported these hypotheses, and it was suggested that these components of hope theory play a significant role in reality negotiation for those who acquire physical disabilities.

Other specific populations seem to benefit from hopeful thinking, such as those with fibromyalgia (Affleck & Tennen, 1996; Tennen & Affleck, 1999), survivors of

severe burns (Barnum, Snyder, Rapoff, Mani, & Thompson, 1998), and those with visual impairments (Jackson, Taylor, Palmatier, Elliot, & Elliot, 1998).

In a study conducted on 89 participants with fibromyalgia, dispositional hope was found to correlate positively with a measure of ability to find benefit in the experience of chronic pain and illness ($r = .34$, $p < .001$). It appears that fibromyalgia patients with higher trait levels of hope use their daily coping strategies as a means of personal growth, as well as coping with their chronic pain (Tennen & Affleck, 1999).

Barnum et al., (1998) conducted a study on 29 adolescents who survived severe burns. Results suggested that higher levels of measured hope contributed unique variance to the prediction of less disruptive behaviors (R squared = .34, $p = .03$) and also heightened individual sense of self worth (R squared = .18, $p = .03$).

Additionally, those who are visually impaired have been the subject of other research on hope (Jackson et al., 1998). (need to find primary reference to give details).

Strategies for using hopeful thinking in the terminally ill have recently been written about (Gum & Snyder, unpublished manuscript). The authors suggest that the maintenance and increase of hopeful thinking can impact coping with dying in a positive way, though, like many other theories of hope, has yet to be tested empirically.

Higher hope people can tolerate a cold pressor task for longer periods of time than those with low hope. Besides being able to keep their hands immersed in very cold water significantly longer, the high hope participants reported feeling less pain, and were also able to not attend to the pain as a way of coping with it. These results could have helpful and powerful impacts on the managing of those coping with chronic pain, an

increasing problem in our society (Snyder, Taylor, Gum, Rand, Kahle, Brown & Hackman, unpublished manuscript).

It also seems that hopeful thinking can have some limitations, depending on illness severity. A study investigating this question looked at the relationship between disease severity and levels of hope in African-American children with sickle cell disease. Results suggested a negative correlation between disease severity and hope scores ($r = -.44$). This may be a demonstration of the possibility of losing hope when too many goal impediments are taking place (Kliewer & Lewis, 1995).

On a collective level, there are attempts at primary prevention taking place through community education and public service messages, targeting specific populations (i.e., youth and smoking). Through the development of societal values, and laws that give people a sense of freedom to pursue their goals, society may as a whole experience less frustration, perhaps resulting in fewer illnesses and injuries (Snyder & Feldman, 2000). Secondary societal prevention looks very similar, but emphasizes strategies and encouragement for seeking help when a problem has already occurred. This may include public service messages to provide community resources, referrals, and specific goal recommendations.

Older Adults

Is growing old a blessing or a curse? Perhaps there are aspects of both, and this dichotomy is reflected in our culture. It is a fascinating time in the modern world, to know that people are living longer than ever before, and new medical advances are almost a daily occurrence. Juxtaposed with this bright prediction of a long future are images of lonely, depressed elderly people, languishing in nursing homes. There is an

outpouring of seemingly contradictory information about growing old, as the public interest increases (Vaillant, 2002).

It is compelling to consider the demographic predictions for the aging population in America. Currently, it is estimated that approximately 12% of the population is age 65 and older, and the percentage is expected to rise to 20% or perhaps even higher over the next 50 years (U.S. Bureau of the Census, 1995). Other statistics concur with the overall "aging" of Americans. By the year 2030, twice as many people will be 65 and older; and by 2050, there may be as many as 4.2 million centenarians in the United States (Volz, 2000). These demographic predictions are attributed to longer life expectancies, combined with the "baby boomer" generation (those born between 1946 and 1964) approaching mid-life years. In the year 2010, the first of the 76 million members of this generation will be of a traditional age to begin their retirement years.

The interest in the aging process has grown in recent years, most likely in part because of these demographic statistics. Mainstream cultural attitudes towards aging and the aged have traditionally been somewhat negative and the thought of getting older usually brings feelings of loss and dread. There are societal concerns that the increasing population of older adults will create a financial strain on working Americans. As more older adults require care, there may not be a system in place to support this increasing need without impossibly draining other resources. These are realistic problems that require solutions, but the doomsday prophecy may be drastically blown out of proportion.

Perspectives on Aging. Old age is usually associated with loss of function and happiness. Our society as a whole also tends to not value the older adult population, perhaps in part because of the disconcerting attitudes our society holds about the aging

process. The associations with old age usually include disease, disability, senility, loneliness, depression, and financial draining of society as a whole (Rowe & Kahn, 1998). Older adults are not generally valued or considered to have valuable societal contribution. The growing concern about aging appears to have two sides to it: On one side, the growing number of elders incites a sense of trepidation for many, and on the other side, people do want to know how to age and have a good life in their "golden years".

Perhaps some of the negative public attitudes towards aging are influenced by the scientific community, or researchers may be influenced by public attitudes and concerns. Regardless of the possible source, prediction of "geriatric Armageddon" (Williamson, pg. 677, 2001) seems to saturate both public and scientific opinion. Not surprisingly, in part as a result of this attitude, the majority of research on older adults tends to focus on weakness, pathology, and disease. These are conceptualizations that positive psychologists are battling against, or at least attempting to moderate.

Consider some common research statistics about older adults: The percentages of people age 70 and over who report diagnoses of health conditions such as diabetes, stroke, cancer, severe arthritis and heart disease are on the rise (Fitti & Kovar, 1987). 21% of Medicare patients live with one disability or more that they report interferes with at least one instrumental activity of daily living (IADL)(Center for Demographic Studies, 1995). Additionally, the University of Michigan Institute for Social Research (1992) reports that 36% of adults over age 85 have moderate to severe memory impairments, and 23% of these adults are clinically depressed or report depressive symptoms. According to this study, these symptoms and impairments become more prevalent with increasing

age. The nature of these statistics tends to paint a rather grim picture of the aging process, though these numbers also indicate that 79% of Medicare patients do not have a disability, 74% of those over 85 do not have serious memory impairments and 77% are not depressed. So the majority of older adults are healthy and happy, presumably, yet little is known about this population.

Positive Psychology and Aging. Certainly, not all of the research on older adults is negative, and there has been a productive contribution. The knowledge base that exists in regards to aging has helped to organize health services, institutionalized care, and social services for the elderly (Birren & Schaie, 1996). We have learned about the difficulties and challenges of aging, and we have a sense of how to help older adults with problems. Yet, the focus of geriatric research follows the medical model paradigm that was discussed earlier in this review, and therefore provides a relatively limited view of the aging process. As in other realms of scientific inquiry, mental and physical illness has been defined, but what about mental and physical health, as well as wellness and well-being? How would the picture of aging in America look through the lens of positive psychology? This is an important question that remains largely unanswered.

Williamson (2001) contributed a chapter in the Handbook of Positive Psychology which serves to demythologize some of the negative perceptions of older adults and the aging process. She specifically addresses the following questions, which provide organization for the next several paragraphs.

"Are old people sick people" (p.677)? Though this fact is hard for many to accept, the majority of older adults (over the age of 65) are, indeed, healthy and living independently. Only 5.2% of older adults live in nursing care facilities, which is a drop

from 1982 by 1.1% (CAH, 1998). Even in the oldest age bracket of older adults (over 85) 40% reported no disabilities, and 73% of older adults in the 78-84 age bracket had no functional disabilities.

"Are old people cognitively deficient" (p.677)? Williamson suggests that novelty and challenge appear to play an important role in helping cognitive function in older adults. Contrary to popular conceptualization of the forgetful senior citizen, unless there is an organic condition, such as Alzheimer's disease that become progressive with age, most older adults show minimal decrease in memory and thinking capabilities. Just like any other age group however, the cognitive functioning of older adults will most likely decrease when they are not in a challenging environment. Older adults may often be in environments where they experience less cognitive challenge than another population, such as college students, for example. However, older adults can learn effectively, but they must take on the individual responsibility of challenging themselves cognitively on a regular basis (Cavanaugh, 1996; West, Crook, & Barron, 1992).

"Are old people isolated and lonely" (p.678)? Again, critical thinking and demographic information suggest, that yes, some older adults are lonely, but so are individuals from other age cohorts. Social networks tend to remain stable across the lifespan, and most older adults find new networks when others are lost (Rowe & Kahn, 1998). Additionally, Williamson (2001) speculates that the advent of cyberspace will increasingly improve communication and connection for older adults in the future.

"Do old people drain society's resources" (p.678)? The underlying assumption in this common belief and societal concern is that older adults drain societal resources because they are not working for pay. This is a shift in societal attitudes towards the

older adult segment of the population. Williamson suggests that older adults are beginning to be viewed as competition, or as a waste of economic resources. She also points out the error in perceiving older adults as one essentially similar, homeogenous population. There is as much variability of financial security and need for public assistance in the older adult population as any other age group, so such sweeping generalizations are misleading and inappropriate.

"Are old people depressed" (p.679)? Finally, the popularly held concept of older adults as unhappy, depressed people is also a fallacy. There is no evidence to point to this whatsoever; in fact, research suggests that clinical depression is less prevalent in older adults (Rybash, Roodin, & Hoyer, 1995).

To challenge some of these common assertions is not to deny that older adults have difficulties in coping and adapting to life challenges. It is important to have appropriate services and interventions designed for the unique constellation of problems and life circumstances that are a daily occurrence for this growing population. Due to the specialization of numerous applied health fields, recovery from illness, coping with disabilities, and experiencing heightened quality of life is more possible now than ever before for aging Americans who are in need of assistance. Research has been a guidepost in this process, and as a result we know a great deal about the challenges and pitfalls of aging from those who experience disease and psychopathology. The next important question to begin asking is simply this: What do we know about healthy older adults?

Positive psychology research in the area of aging would most likely focus on such questions as: What can we learn from older adults about aging gracefully and successfully? How can we continue to thrive and flourish in our later years, rather than

languish? Who and what can we look to for information and knowledge about aging well? This review will continue by exploring successful aging with the positive psychology perspective at the forefront.

A Successful Aging Model

What does the current literature tell us about what it means to age successfully, and what strategies increase our chances of aging well? The term "successful aging", is being used more liberally, and could indicate a number of differing factors. The Harvard study of adult development was recently released (Vaillant, 2002), and suggests some themes to operationalize successful aging and what processes appear to be involved in aging well. This study, as well as other theoretically driven strategies, indicate that a sense of life satisfaction, regular physical activity, a positive perception of health, and a sense of self-responsibility for wellness are indicators of successful aging (Vaillant, 2002; Glover, 1998; Rubel, Reinsch, Tobis, & Hurrell, 1994).

Another popular model for successful aging was developed by Rowe and Kahn (1998). They assert that looking only at the absence of sickness is a rather limited view of successful aging, and define successful aging as "the ability to maintain three key behaviors or characteristics: 1. Low risk of disease and disease-related disability; 2. High mental and physical function; and 3. Active engagement with life." (p. 38). To the extent that these three components intersect, there is increased chance of successful aging taking place.

There is a recognition in this model of a hierarchical placement among the three components of successful aging just mentioned above. Naturally, the absence of disease and disability is a positive thing and it tends to make it easier for individuals to maintain

cognitive and physical levels of functioning. These levels of functioning, in turn, are what could enable active and satisfying life experiences. It is important to emphasize again, that it is the combination of these three components that best exemplifies successful aging (Rowe & Kahn, 1998).

Self-Responsibility for Wellness. Avoiding disease and disability, as well as maintaining optimum functioning are both major aspects of self-care and preventative health care. Accepting and maintaining self-responsibility for wellness is a critical function in Rowe and Kahn's model for successful aging. Wellness and health promotion programming for older adults has gained popularity over the past few decades (Haber, 1999; Dychtwald, 1985), but the degree of self-responsibility individuals take for committing to a wellness regime has not been widely considered as an aspect of successful aging. Patients and clients are "advised, instructed, even cajoled or threatened to carry out health-care behaviors or health promoting" (Karoly, 1989, p.579). It is expected that individuals will take responsibility for self-management in health care and in illness prevention, as well as wellness promotion. For older adults, this can be a more complex process. Medication adherence, regular exercise, a healthy diet, and regular checkups/follow up visits with physicians is a critical part of aging well and detecting health problems (McConatha & McConatha, 1985). Exercise has been particularly emphasized in health promotion programs and appears to positively impact the quality of life in older adults (Marinelli & Plummer, 1999; Hill, Storandt, & Malley, 1993). It has also been suggested that maintaining regular activities is a critical part of maintaining positive mood and coping with the stresses of aging (Williamson & Dooley, 2001).

Self-responsibility is one of the major tenants of wellness and aging successfully, but nothing is known empirically, to date, of what predicts or increases the level of self-responsibility that older adults take for their health and well-being.

Life Satisfaction. A sense of life satisfaction is considered to be a part of successful aging, yet it can't be fully explained what makes life satisfying for each individual (Ardelt, 1997). What increases a sense of life satisfaction, or active engagement in life? What can we learn to explain, and to maximize this aspect of successful aging?

Early research suggests numerous, and sometimes contradictory theories about life satisfaction in older adults. Economic and sociological factors, for example, appears to be the strongest indicators of life satisfaction in older adults according to one study conducted on 2,500 older adults (Chatfield, 1977). A weakness of this study design was the focus on the sample being recently retired; this population may have been in the early stages of adjustment to a retired lifestyle.

A meta analysis attempted to summarize and define subjective well-being in older adults (Larson, 1978). Results suggested that well-being was most strongly related to health, and next related to socioeconomic status and amount of social interaction. Results also suggested that marital status was related to well-being, but that factors such as age, race, employment status, and gender had no significant relationship to subjective well-being.

Later research focusing on older adults and life satisfaction suggested that these results are incomplete, but rather that life satisfaction in old age comes from personality characteristics and individual development (Ardelt, 1997). Her research and 120 older

men and women revealed that a variety of cognitive, reflective and affective qualities had a more profound impact on the measurement of life satisfaction independent of life circumstances such as physical health, economic status, or social support.

Life satisfaction may be better understood through looking at the personal goals of older adults, which is related to hopeful thinking, according to Snyder's model. A research project identified that life satisfaction was positively related to energetic goals, and negatively related to reduced activity and lack of concern for improvement (Rapkin & Fischer, 1992). Life satisfaction appears to be connected, in part, to goal focused behaviors. Another research study reviewed for this chapter focused on personal goals and subjective well-being for older adults (Lapierre, Bouffard, & Bastin, 1997). 708 older adults participated in a sentence completion exercise, and in the process expressed 15,027 personal goals. The goals were then put into ten different classifications based on their content. Personal goals that focused on preservation of self were associated with poor self assessment of health, dissatisfaction with life, and negative future expectations. Personal goals focusing on interest in others and self-development were associated with higher life satisfaction scores.

What are some potential predictors that are linked with these two major aspects of successful aging, namely self-responsibility for wellness, and life satisfaction? The following paragraphs explore the predictors chosen for this study: Self assessment of life functioning, level of education, and degree of hopeful thinking.

Self-Evaluation of Life Function. It has been suggested that it is more important, in terms of successful aging, to consider how older adults perceive their health than their objective health status (Williamson, 2001). Self-rated health is a significant predictor of

mortality in the elderly, for example (Mossey & Shapiro, 1982). This study tested the hypothesis that self-rated health was a more powerful predictor than objective health status in older adults. A single measure of self-rated health was obtained from the sample of 3,128 non-institutionalized Canadians aged 65 and older. Death rates were recorded for the next six years. After controlling for the effects of objective health status, age, gender, SES, life satisfaction and residential area, it was found that self-rated health status was highly predictive of mortality. This research provided some initial evidence that subjective health is perhaps more powerful than objective health status in determining quality and length of life.

Educational Level and Successful Aging. Vaillant (2002) has also theorized that those with higher education levels probably age more successfully. This could be due in part to the assertion mentioned earlier by Williamson (2001) in regards to the need to challenge the mind and continue learning in order to sustain memory and cognitive function. It may also be part of an individual's sense of abilities and interests in learning novel information, and feeling confident when facing new experiences. Empirically, education has not been included in research on successful successful aging, thus it is included here in this project to assess its relationship to life satisfaction and self-responsibility for wellness in older adults.

Successful Aging, Hopeful Thinking and the Older Adult Population. Hope theory has already been explored in depth in this review, but it is important to relate it to the population being studied, and to identify empirical gaps. It has been established theoretically that hope could play a significant role in successful aging. For example,

hope theory is already applied in a variety of settings for older adults, such as in group treatment with depressed older adults outpatients (Klausner, Snyder, & Cheavens, 2000). It has also been suggested that hope levels, as well as past and present relationships play a powerful role in the successful aging process in older women (Westburg, 2001).

Hope is a potentially powerful connecting component in successful aging, in the sense that there are some strong indicators that hope is related to other predictors in this model (education level and self-assessed life function), and therefore could significantly strengthen the predictive model of this study.

It has been hypothesized that hope plays a functional role in preventing problems and strength enhancement (Snyder, Feldman, Taylor, Schroder, & Adams, 2000). Higher hope levels should result in higher self-responsibility for wellness, as well as more life satisfaction, but again, this has not been tested empirically, which is the major goal of this research project.

Conclusion

This literature review has identified the need to empirically examine potential predictors of successful aging in older adults. There are numerous implications of this investigation, including theoretical and practical benefits. First, results will add to the conceptualization of successful aging, and its relationship to a number of possible predictors. Specifically results may extend a paradigm of successful aging to include hopeful thinking, and a positive psychological perspective. Furthermore, the results could benefit aging adults and the practioners who assist them in successful aging. Psychologists and physicians will have a better understanding of possible interventions and psychoeducational approaches to promote health and successful aging in older adults.

Increased understanding of the individual variables that affect the relationships between predictors and outcomes of successful aging, as well as the subjective thoughts and beliefs of the participants in this study, will enable psychologists to provide more individualized intervention and enhancement services to meet the specific needs of the older adults with whom they work.

Chapter 3

METHODOLOGY

The purpose of this dissertation was to investigate the relationships between levels of hope, level of education, and self-assessed life function with aspects of successful aging (life satisfaction and self-responsibility for wellness) in older adults. The intention of this project was to study these relationships, and there was no introduction of experimental elements. This investigation design was a field study which employs a survey method for the purpose of exploring relationships between variables for individuals at a single point in time. Specifically, the research questions were as follows:

Quantitative questions:

1. What are the relationships among hope, level of education, and self-evaluation of life function with aspects of successful aging (life satisfaction and self-responsibility for wellness) in this sample of older adults?
2. Is self-evaluation of life function predictive of successful aging (as defined by life satisfaction and self-responsibility for wellness) in this sample of older adults?
3. Is level of education predictive of successful aging in this sample of older adults?
4. Is level of hope predictive of successful aging in this sample of older adults?
5. After taking education into account, does hopeful thinking and self evaluation of life function significantly add to the prediction of successful aging in this sample of older adults?
6. After taking education and self evaluation of life functioning into account, does hopeful thinking significantly add to the prediction of successful aging in this sample of older adults?

Several hypotheses were tested. These are as follows:

1. There is a conceptually positive relationship between hopeful thinking and life satisfaction in this sample of older adults.
2. There is a conceptually positive relationship between hopeful thinking and self responsibility for wellness in this sample of older adults.
3. There is a conceptually positive relationship between education level and life satisfaction in this sample of older adults.
4. There is a conceptually positive relationship between education level and self-responsibility for wellness in this sample of older adults.
5. There is a conceptually positive relationship between self-evaluation of life function and life satisfaction in this sample of older adults.
6. There is a conceptually positive relationship between self-evaluation of life function and self-responsibility for wellness in this sample of older adults.
7. The degree of self-evaluation of life function is predictive of life satisfaction in this sample of older adults.
8. The degree of self-evaluation of life function is predictive of self-responsibility for wellness in this sample of older adults.
9. The level of hopeful thinking is predictive of life satisfaction in this sample of older adults.
10. The level of hopeful thinking is predictive of self-responsibility for wellness in this sample of older adults.
11. The level of education is predictive of life satisfaction in this sample of older adults.

12. The level of education is predictive of self-responsibility for wellness in this sample of older adults.
13. Hopeful thinking and self-evaluation of life function significantly add to the prediction of life satisfaction after accounting for education.
14. Hopeful thinking and self-evaluation of life function significantly add to the prediction of self-responsibility for wellness after accounting for education.
15. Hopeful thinking significantly adds to the prediction of life satisfaction after accounting for self-evaluation of life function and education.
16. Hopeful thinking significantly adds to the prediction of self-responsibility for wellness after accounting for self-evaluation of life function and education.

Supplemental qualitative questions:

1. What do older adults feel supports and promotes successful aging?
2. How do older adults compare their current goal setting behavior to how they have striven for goal attainment in the past?
3. What kinds of preventative health behaviors do older adults engage in to help themselves retain health and a sense of well-being?

This chapter will describe and outline the methodology utilized in the current study. First, it will present a description of the procedures for recruiting research participants, obtaining informed consent, and collecting data. Next, the chapter will describe the demographic survey and the self-report measures used for assessing the variables of interest in this project and their psychometric properties regarding the validity and reliability of the chosen instruments. Finally, the chapter will conclude with

a power analysis which determines the number of participants required in this project in order to provide sufficient statistical power for the data analyses, and a description of the intended quantitative and qualitative analyses.

Participants and Procedures

Men and women aged 65 and older who live with relative independence were recruited to participate in this project. Recruitment strategies include announcements at senior citizen centers and retirement communities, as well as recruitment through local church communities and other community events where older adults are likely to attend. Participants signed up for designated times to complete the survey or were contacted by phone to schedule an appointment. Participants were paid $10 to participate in the study. The purpose of the study was described to participants as a study "to learn more about the experience of aging".

After obtaining informed consent from the participants, they each were provided with a copy of the informed consent. They were then asked to complete the packet of questionaires containing the instruments described in the following section of this chapter. The order of the questionaires in the packet was varied. In addition to the questionaires, participants were also asked to complete a demographic survey regarding their background and demographic characteristics, such as age, marital status, gender, and years of education. To ensure participants of confidentiality, no identifying information, such as names, was requested from the participants on the surveys, and all survey packets were coded so that information obtained from the surveys could not be matched with individual participants. Signed informed consent forms were kept in a locked filing cabinet.

Instruments

The instruments chosen in this study represent the measures for each variable which contained the most rigorous psychometric properties. If a measurement was normed on an older adult population, it was chosen over other comparable measures. In the case of self-responsibility for wellness, the only measure available was the Self-Responsibility for Wellness Index, which was also normed on older adults.

Demographic questionaire. Participants were asked to share their age, marital/partner status, race/ethnicity, level of education (to be translated into years), whether they practice preventative health practices (including identifying those practices), and whether there is regular contact with pets or companion animals. Some of this demographic data will be used for future research endeavors.

Life Satisfaction Index (LS-2). The LS-2 was initially developed by Neugarten, Havighurst, and Tobin (1961). When using this index, participants are asked to read 20 statements concerning life satisfaction and state whether they agree or disagree with the statements. The scale has demonstrated reliability and validity at adequate levels. Item analyses were conducted, and a Cronbach' coefficient alpha was computed at .64, which is of acceptable standards to demonstrate internal consistency. The test-retest reliability coefficient was .78, which was statistically significant (.05 level),(Neugarten, Havighurst, & Tobin). A total score for the index is based on the scale's key of item point values. The highest score possible is 20, indicating the highest degree of life satisfaction. It was designed with the intention of measuring the psychological well-being of the elderly.

The Adult Trait Hope Scale (The Goal Scale). Measurements for the purpose of assessing hope have been developed and possess reliable and valid psychometric

properties. Currently, measures exist to assess trait and state levels of hope in adults, and there is also a trait assessment for children. These measurements have been utilized in research about hope in a variety of settings, including the areas of education, physical health, psychotherapeutic models and in psychological adjustment. Interview and narrative style assessment have been developed as well.

The Adult Trait Hope Scale was developed by Snyder and his colleagues (1991), and possesses adequate psychometric properties. This scale is designed to measure the extent to which an individual displays the components of the cognitive hope construct. This is a twelve-item scale that is divided into two subscales (pathways and agency). Each subscale has four items, and there are four filler items which are rated on an eight point Likert scale ranging from 1=Definitely False to 8=Definitely True. Extensive data support the discriminant and convergent validity of this Hope Scale (Snyder et al., 1991). There is adequate internal reliability for the overall scale as well as the subscales (Overall alpha = .74-.84, Agency alpha = .71-76, Pathways alpha = .63-.80). Scores range from 0-64, with a higher score indicating higher degrees of hopeful thinking.

Self-Evaluation of Life Function Scale (SELF). This instrument is intended to serve as a succinct, yet comprehensive self-report measure of health, specifically designed for older adults. A four year study established reliability, validity and factor structure. This instrument is a 54 item, multidimensional scale that utilizes self-report to measure emotional, social and physical functions. According to the authors of the scale, it appears to effectively measure several aspects of life function, such as symptoms of aging, physical ability, self-esteem, social satisfaction, emotional well-being, and sense of personal control (Linn & Linn, 1984). Results of the extensive study suggest that the

scale seems stable and reliable, and can discriminate between groups in an anticipated direction. The scale has significant 1 year predictive validity for physician visits (R-squared = .28), self-assessed health (R-squared, .29), and length of institutionalizations (R-squared = .37, all at $p < .05$). Scores for each of the subcategories are calculated and then added together to yield an overall score for self-assessment of overall life functioning. The lower the score, the higher the self-evaluation of life function, with possible scores ranging from 50-150.

Self-responsibility for Wellness Scale (SRWI). This instrument was designed to measure self-responsibility for wellness in older adults and is intended to obtain an evaluation of attitudes and behaviors as they are relevant to self-care, health, and satisfaction with social interactions (McConatha & McConatha, 1985). This instrument consists of 47 statements which were evaluated by psychologists and gerontologists, and then field tested on 180 older adults. Item analyses were conducted, and a Cronbach' coefficient alpha was computed at .90, which is of acceptable standards to demonstrate internal consistency. The test-retest reliability coefficient was .62, which was statistically significant (.001 level). The SRWI is designed specifically for the older adult population, with a maximum score of 235 possible. The items consist of questions such as "Are you able to deal with most problems which arise in your life?" A Likert scale with five choices ranging from "Always" to "Never" are then scored accordingly to yield a total score. Scores could range from 0-235, with a lower score indicating greater self-responsibility for wellness.

Statistical Analyses

Power Analysis

A power analysis (Cohen, 1988) was calculated to determine the sample size necessary for a multiple regression analysis in order to obtain a moderate effect size of R squared =.13. Using Cohen's tables, a multiple regression model which has three predictor variables, and two outcome variables, at an alpha =.05 with power = .80, yields a sample size of 77.66, or 78 people for a moderate effect. A minimum of 78 participants were necessary to yield significant results for this research project. Optimal numbers may be more in the range of N=100-125, assuming that a smaller effect size (R squared = .10) may be more realistic, which would then be calculated as N=113 in order to produce significant results.

Quantitative Analyses

Descriptive and Inferential Statistics. Demographic characteristics of the sample were calculated, as well as means, standard deviations, and ranges of the scales. Pearson product-moment correlations among the independent and dependent variables were calculated, for the purposes of determining if there is multicollinearity, and also to assess the construct validity of the instruments. The following paragraphs describe the statistical analyses for each of the quantitative research questions.

A correlation matrix was calculated using Pearson correlation coefficients (r) to determine if there were significant relationships between the independent and dependent variables, thereby addressing the first research question, as well as hypotheses #1-6.

This examined the nature of the relationships, and from subsequent plots, assisted in ascertaining whether there was a significant pattern between the values of the variables. Linear regression analyses was also used to address research questions 2 through 4, as well as hypotheses #7-12, to determine if the relationships between the independent and dependent variables had predictive power. The outcome of these regression analyses are presented, along with subsequent hierarchical multiple regression models in the results chapter.

According to Tabachnick and Fidell (1996), if the research question is attempting to assess the degree of relationship among variables, with one continuous dependent variable and multiple continuous independent variables, the most appropriate analytic strategy is multiple regression, and the goal of analyses is to create linear combinations of independent variables to optimally predict the dependent variables. This was the strategy utilized for the questions 5 and 6, and will also address hypotheses 13-16. Hierarchical multiple regression was also utilized, accounting first for education level, and then also self-evaluation of life functioning, while determining if levels of hopeful thinking adds significant predictive power for the two dependent variables (life satisfaction and self-responsibility for wellness).

Qualitative Analyses: The qualitative data were intended to enrich the quantitative data and to suggest future directions and hypotheses in the area of successful aging. The qualitative questions in this study were intended to supplement and assist with the interpretation and discussion of the quantitative findings. Responses to the open ended research questions were tabulated and analyzed using a constant comparison method by

the author for thematic similarities. The kinds of preventative health behaviors in which older adults engage also were tabulated and presented.

Chapter 4

RESULTS

Participant Results

The participants in this study consisted of 103 older adults who are living in relative independence in a variety of regional settings in Michigan. The majority reside in mid-Michigan (N=85) and were recruited through senior community centers, churches, and a hospital outpatient kidney dialysis clinic. The remainder were recruited in the metro Detroit area and the southwestern region of Michigan. These areas have a mixture of socioeconomic regions, including rural areas, suburbs, and cities. There is over-representation in the mid-Michigan region because of the convenience of the location and networking opportunities; there may be a higher representation of rural populations in the sample due to convenience sampling.

Exact participation rates are unknown; the number of older adults who were asked to participate was not noted. However, 200 survey packets were distributed, 115 were returned, and of those, 12 were invalid due to incompletion of the survey packet. It should be noted that some subjects were missing responses to one item, and when that occurred, the individual's responses to the inventory or subscale were averaged and the mean score was entered for the missing item, which was done in order to include the highest number of subjects possible.

The survey data were collected over a period of approximately eight weeks, which involved numerous visits to church meetings, community events, and individual solicitation for participation. Only the primary investigator collected data from the sample in this study, with the exception of the kidney dialysis clinic. A registered nurse

used a script prepared by the primary investigator to solicit patients to participate in the study.

Characteristics of the Sample. The older adults in this study were between the ages of 65 and 93, all meeting the defining criteria of an older adult. Mean age of the sample was 74 years. Male participants comprised 35 of the total participants, females comprised 68 of the total number. There were 89 Caucasian participants, 11 African American participants, and 3 Hispanic/Latino participants. The majority of the sample were married (N=51), followed by widowed (N=41), divorced (N=9), and single (N=2). In regards to education level, the majority reported high school as their highest level of education (N=50). 21 participants reported attending and completing technical or vocational training beyond high school. 12 identified completing college degrees, and 12 also reported completing graduate degrees. Eight of the participants reported ending their education at the elementary level.

Participant Results for Variable Measurements. In regards to hopeful thinking, one independent variable in this study, the average score on the goal scale was 49, with a range of 28-64 and a standard deviation of seven. Higher scores on this scale indicate greater levels of hopeful thinking. Highest score possible for the Goal Scale is 64.

Another independent variable, the Self-evaluation of Life Function score, yielded a range in this sample of 60 to 145. The average score was 93, with a standard deviation of 17. Lower scores indicate higher levels of self evaluated life function, as measured by the SELF scale.

One of the dependent variables, life satisfaction, was measured by the Life Satisfaction Index (LS-2). The average score on this measure within this sample was 13, with a range of three to 19, and a standard deviation of 4.37. Possible scores on the LS-2 can range from zero to 20. Higher scores indicate higher levels of life satisfaction.

The other dependent variable, self-responsibility for wellness, was measured by the Self-Responsibility for Wellness Index (SRWI). The mean score for self-responsibility for wellness in this sample was 105, with a range of 72-151 and a standard deviation of 18.51. Lower scores on this measurement indicate greater levels of self-responsibility for wellness; scores can range from 0-235.

Quantitative Analyses

A correlation matrix was generated to assess the relationships among education level, hope level, self-evaluation of life function, life satisfaction and self-responsibility for wellness in this sample of older adults. This addresses the first research question and also hypotheses one through six. Table 1 provides this information.

Table 1

Correlation Matrix among the independent and dependent variables

Variables	Correlations				
	LE	GS	SELF	LSI	SRWI
Level of Education	1	.123	-.102	.163	-.185
Total Goal Score (Hope)	.123	1	-.413*	.432*	-.537*
Total SELF Score (perceived health)	-.102	-.413*	1	-.602*	.808*
Total Life Satisfaction Index	.163	.432*	-.602*	1	-.608*
Total Self Responsibility Wellness	-.185	-.537*	.808*	-.608*	1

Note: *p < .01 (2-tailed)

The first hypothesis was supported by the data; there appears to be a positive relationship between hopeful thinking and life satisfaction in this sample of older adults

(r = .432, p = 0.01). A significant relationship also was found between level of hopeful thinking and self-responsibility for wellness (r = -.537, p = 0.01), which supports the second research hypothesis. When levels of hopeful thinking increase, it appears that levels of self-responsibility for wellness and life satisfaction also increase.

Hypotheses three and four addressed the relationship between education level and the two dependent variables. Results did not support a positive relationship between education level and self-responsibility for wellness (r = -.185, p = 0.01), nor did the data support a positive relationship between education level and life satisfaction in this sample of older adults (r = .163, p = .01).

There does appear to be support for significant relationships between perceived health, as measured by the Self-Evaluation of Life Function and the two dependent variables in this study. The relationship between self-evaluation of life function and life satisfaction was significant (r = -.608, p = .01), suggesting that the higher the level of health, the higher the level of reported life satisfaction in this sample. The relationship between self-evaluation of life function and self-responsibility for wellness was significantly positive in this sample of older adults (r = .808, p = .01). These results address and support hypotheses five and six in this study.

Hypotheses thirteen and fifteen postulated a relationship between education level, health (as measured by the total score on the Self Evaluation of Life Function scale), and hope (as measured by the Goal Scale) and an aspect of successful aging, life satisfaction, in older adults. Hierarchical regression was chosen to test this hypothesis since it allowed the effect of hope to be assessed after the effect of level of education and, later, self-evaluation for life functioning to be controlled. It should be noted that education level

originally had five categories: elementary, high school, technical/vocational school, college degree, and graduate degree. The last two categories, college degree and graduate degree were collapsed into one category since each only contained 12 participants. Education level was entered in the first block, then total self evaluation of life function score was entered on the second block, and finally, goal scores entered on the third block. It should also be noted that the tolerances were very high (.89 for goal scores and .98 for self scores) indicating that collinearity was not a problem. The results of this analysis are presented in table 2.

Table 2

Hierarchical Linear Regression for Life Satisfaction

Model	R	R square	Adjusted R Square	Std. Error of the Estimate
1	.26	.07	.04	4.29
2	.64	.41	.39	3.43
3	.67	.45	.42	3.32

As the table above shows, the adjusted R square for the first model was very small (R Square = .04) and not significant (p = .08). None of the education level categories yielded significant beta weights. It appears that education level was responsible for only about 4% of the variance in the LS2 scores for these specific participants. These results do not support the 11th hypothesis. The R Square value, however, for the second model was .39, p = .00, indicating that there is a significant relationship between the following set of variables: education level and self assessed life function; and life satisfaction in older adults. Thus 39% of the variance in the LS2 scores is accounted for by education and self evaluation of life function . This suggests that perceived health is a significant predictor of life satisfaction, which provides support for the seventh hypothesis in this

study. The third model, however, provided the best prediction equation (R square = .42, p = .01) and accounted for a significant portion of the variance in the life satisfaction scores. In order to confirm the superiority of the third model, R square change statistics were calculated to assess significant differences in the models. The second model was significantly better than the first (F Change = 56.99, p = .00), and the third was significantly better than the second (F Change= 7.24, p = .00), indicating that the goal scores were a significant addition. These results provide support for the ninth hypothesis in this study.

An examination of the Beta weights in the third model shows that only the goal and SELF scores contributed significantly to the prediction equation (t = 2.70, p = .01, t = -6.03, p = .00, respectively), with self scores contributing the greatest amount. Specifically, greater hope (higher goal scores) and better self- assessed life function (lower self-evaluation of life function scores) are associated with greater life satisfaction in older adults.

Specifically addressing the 15th hypothesis statement, hopeful thinking does appear to significantly add to the prediction of life satisfaction in this sample of older adults, after taking education level and self-evaluation of life functioning into account.

Hypotheses 14 and 16 postulated a relationship between education level, self-assessed life function (as measured by the total score on the self evaluation of life function scale), and hope (as measured by the goal scale) and another aspect of successful aging, self-responsibility for wellness. Once again a three-step hierarchical regression was performed to test these hypotheses for the same reasons outlined in the previous regression analysis. Table 3 presents the results of this analysis.

Table 3

Hierarchical Linear Regression for Self-Responsibility for Wellness

Model	R	R square	Adjusted R Square	Std. Error of the Estimate
1	.19	.04	.01	18.44
2	.82	.67	.65	10.89
3	.85	.72	.71	9.98

Table 3 shows that the first model, which used only the education level variables as predictors, yielded a very small value for adjusted R Square (.01), which was not significant in the population (p = .29). Once again, education level does not appear to be a significant predictor for the second dependent variable in this study, which answers the fifth research question and did not support the 12th hypothesis. The second model, however, accounted for 65% of the variance in the SRWI scores, and produced a significant prediction equation (p = .00). Self-evaluation of life function appears to be a significant predictor for self-responsibility for wellness, which addresses the third research question and provides support for the eight hypothesis. Once again, however, the third model was superior with an adjusted R square value = .71, p = .00. The R square change statistics corroborated this. The F change value for the second model was 186.08, p = .00, indicating the second model was significantly better than the first, but the F change value for the third model (19.53, p = .00) confirmed that the addition of the goal scores accounted for significantly more variance in the SRWI scores. This addresses and provides support for the tenth hypothesis statement.

An examination of the Beta weights for the third model reveals that the education level variables were not contributing significantly, but goal scores (t = -4.42, p = .00) and self evaluation of life function scores (t = 11.82, p = .00) were responsible for the

significant prediction equation, with self evaluation of life function scores contributing the most. Specifically, greater hope (higher goal scores) and better self- assessed life function (lower self evaluation of life function scores) are associated with greater self responsibility for wellness (lower SRWS scores) in older adults.

Hopeful thinking does significantly add to the prediction of self-responsibility for wellness in this sample of older adults, after taking education level and self-evaluation of life functioning into account. This supports the 16th hypothesis statement.

Exploratory Qualitative Analysis

Results of the open ended questions were analyzed for thematic content and tabulated, as can be seen in tables 4 and 5. The number of subjects responding to the open ended questions was N=82. The two questions, once again, were as follows:

1. What do older adults believe supports and promotes successful aging?
2. How do older adults compare their current goal setting behavior to how they have striven for goal attainment in the past?

The kinds and frequencies of preventative health behaviors in which this sample engages can also be seen summarized in table 4. This addresses the third and final question in the supplemental analyses section.

Table 4

Responses to Open-Ended Question #1

Theme	Frequency	Percent
Healthy Relationships	43	52%
Stay active/Exercise	36	44%
God/Spiritual life and community	32	39%
Good attitude/Positive thinking	27	33%
Good diet	18	22%
Read/Challenge your brain	17	21%

Help others/Volunteer	17	21%
Good Health	16	20%
Stress management/Self-Care	14	17%
Do what you can/accept what you can't	9	11%
Humor	7	9%
Faith	6	7%
Don't drink	6	7%
Hobbies	6	7%
Don't smoke	5	6%
Gratitude	5	6%
Doctor's care	5	6%
Rest/Sleep	3	4%
Financial Security	3	4%
Travel	4	5%
Genes	2	2%
Good parenting	2	2%
Like yourself	1	1%
Health Benefits/Insurance	1	1%

N = 82

The second open ended question addressed the formation of goals, and whether that process had changed as the individual aged. Of those who responded (N=82), 51 participants stated "Yes" (62%). Table 5 summarizes the thematic explanations of these 51 participants. Table 6 displays the proportion of participants who engage in each of the preventative health activities.

Table 5

Explanation for Changes in Goal Formation

Explanations	Frequency	Percent
Less goal oriented overall	14	27%
Short term instead of long term goals	12	24%
Not overdoing physically	12	24%
More rest, less energy toward goals	9	18%
More goals towards maintaining health	9	18%
More flexibility in goal arrival	8	16%
Goals for self rather than others	7	14%
Less materialistic in goals	7	14%
More careful evaluation of goals	6	12%
More limits of what can be done	6	12%

More spiritually oriented goals	5	10%
Trying new things in goals	2	4%

N=51

Table 6

Percentage of Participants Engaging Regularly in Preventative Health Activities

Health Activities	Frequency of "Yes"	Percent
Healthy Diet Practices	61	59.2%
Spiritual/Religious Practice	55	53.4%
Walking	52	50%
Take Vitamins/Supplements	51	49.5%
Meditation/Prayer	43	41.7%
Self-Education	42	40.8%
Massage Therapy	9	8.7%
Weight Training	8	7.8%
Yoga	1	1%
Tai Chi	0	0%

N= 103

Chapter 5

DISCUSSION

The purpose of this project was to investigate the role of hopeful thinking combined in a regression model to predict outcomes of successful aging in older adults. This study investigated hopeful thinking, education level, and self-assessed life functioning as predictors of levels of self-responsibility for wellness and life satisfaction in older adults through quantitative analyses. The intention of this study was to look at dimensions of successful aging, including the satisfaction older adults have with their lives, and how well older adults are taking care of themselves. In addition, previous writing and logic suggest that people with higher education levels and those who are healthier would likely fare better in these dimensions of successful aging. The author was interested in a better understanding of whether hopeful thinking would significantly add to these variables and therefore further expand our understanding of how people can be supportive in aging well. Supplemental qualitative data were also analyzed to explore possible themes in the ways healthy older adults describe the way they establish goals, overcome goal blockages, and maintain a healthy sense of well-being, thereby aging at optimal levels.

This final chapter will summarize and integrate results, provide possible explanations for results, and integrate these findings with relevant literature reviewed in chapter 2. Additionally, implications of the results will be discussed, limitations of the study will be presented, and finally, suggestions for directing future research will be submitted.

Summary and Integration of Results

Correlations among independent and dependent variables. The first set of research questions and hypothesis in this project addressed possible correlational relationships among the independent and dependent variables. Results suggest that when older adults in this sample have higher levels of self-evaluation of life function and higher levels of hopeful thoughts, they also report higher levels of life satisfaction and self-responsibility for wellness behaviors, such as exercise, relaxation, social contact, etc. Self-evaluation of life function appears to be more strongly related to both dependent variables than level of hopeful thinking, however. Level of education was not significantly related to either life satisfaction or self-responsibility for wellness behaviors.

Predictive power of independent variables on dependent variables. Education was not found to be significantly predictive of either life satisfaction or self-responsibility for wellness. On the other hand, both self evaluation of life function and hopeful thinking were significantly predictive for both dependent variables. The most powerful predictive models combined self evaluation of life function with hopeful thinking, and self evaluation of life function appears to contribute the greatest amount of predictive strength. Hopeful thinking does significantly add to the prediction of both life satisfaction and self-responsibility for wellness.

Exploratory qualitative findings. Participants were asked to share what they felt contributed to successful aging. Responses were varied, but many participants pointed to general themes such as staying active and exercising regularly, having a spiritual life and community, helping others, keeping a positive attitude and eating a healthy diet. The most widely reported theme involved the importance of healthy relationships. Over half

of the participants attributed successful aging to the presence of healthy relationships. Over half of the respondents stated that the way they formed goals had changed over the years, with many indicating less orientation toward goals, especially long-term goals. Very few reported less goal directed behavior, but rather shifts in the kinds of goals sought by this sample of older adults.

Explanations for Findings

Correlations among independent and dependent variables. It was necessary to establish empirically fundamental statistical relationships among the variables in this study. Results supported the hypotheses, with the exception of education level, which was not found to be related to either life satisfaction or self-responsibility for wellness. This finding was surprising both from the perspective of logic as well as persuasive writing about the role of education in aging well (Vaillant, 2002; Williamson, 2001). There was a wide range of education level represented in this sample, from elementary school as the highest level achieved, to graduate degrees. Restricted range in the sample, therefore, does not account for the lack of significance of this variable. There are other possible explanations for these results. Due to the fact that education level referred only to formal education contexts, and did not address the informality of knowledge gathering, such as reading independently, using the internet, etc., it's possible that older adults are challenging their brains regardless of their formal level of education. This population of older adults may challenge their minds on a regular basis, but this can only be speculation based on the data gathered for this project. Future studies should investigate all formats and contexts for learning and gathering knowledge.

Self-evaluation of life function appears to be the strongest predictor of both dependent variables. According to previous research, beliefs regarding subjective well-being are more powerful than objective health status. It stands to reason that perceived health is likely to be related to the degree of physical wellness. People who are coping with pain or the many limitations of chronic conditions are likely to have fewer options than those who are comparably healthy and symptom free. The more fit and healthy a person considers himself to be, the more likely he is to feel satisfaction with life and to engage in behaviors intended to promote future quality of life.

Once again, according to Snyder's (2000) theory, hope is defined as the "sum of perceived capabilities to produce routes to desired goals, along with the perceived motivation to use those routes" (Snyder, 2000, p.8). The model consists of realistic goals (short or long term), the existence of strategies for reaching those goals, and the sense of agency to carry out the goal directed behavior. Goal directed, hopeful thinking may be related to life satisfaction and an increase in self-responsibility for wellness behaviors for a few reasons. First, hopeful thinking implies future directed, goal oriented thinking, with a sense that the goals can be met and are within the individual's grasp. Achieving goals has been suggested in the literature to be related to a sense of life satisfaction; older adults continue to have goals, and the ones who report the most goal directed thinking also report higher levels of life satisfaction. They also are informed in regards to health and prevention and tend to prioritize wellness behaviors. Many of the older adults in this sample reported goals in the area of staying healthy and maintaining levels of energy and wellness; perhaps goal directed thinking supports or is related to this process. The older adults in this study who reported higher levels of hopeful thinking also reported higher

levels of self-responsibility for wellness. These adults set realistic goals for themselves, such as taking short daily walks, that support their well-being. It could also be implied by the hope scale score that these individuals incorporate goal flexibility, and when the ability to accomplish a goal becomes blocked, these individuals alter their goal to accommodate and continue the pursuit of health and positive emotions. Across the lifespan, accommodating blocked goals is an essential part of coping and therefore an aspect of aging successfully. Many of the individuals in this study reported in open ended questions that the nature of their goals had changed over time, and the process used to set goals had also been altered over time, suggesting goal accommodation and flexbility. This is the key aspect of strategy or "pathways" thinking in Snyder's model of hopeful thinking.

Predictive power of independent variables on dependent variables. Not only has a correlational relationship been established between both levels of hope and self-evaluation of life functioning with self-responsibility for wellness and life satisfaction, but regression analyses suggest that it is possible to predict life satisfaction and self-responsibility for wellness by measuring levels of hope and self-evaluation of life functioning. If both high hope and high self-evaluation of life function exist, then it is very likely that an individual will report higher levels of life satisfaction as well as more wellness behaviors than those who do not have high levels of hopeful thoughts and do not evaluate their life function highly.

Integration of Findings with Past Literature

Convergent findings. These results did support the literature which states that self-perceptions of wellness are powerful predictors for life satisfaction. Also supported is the

connection between life satisfaction and goal directed thinking, which was established in the literature. A major component of hopeful thinking involves goal directed thoughts; this supports the previous conceptual and empirical research literature.

Snyder and his colleagues suggested several ideas about the possible role of hope in older adults. Specifically, a conceptual chapter written in the Handbook of Hope (Cheavens and Gum, 2000) submitted that hope plays a substantial role in aging. Just as goals, strategies, and motivation lead to desirable outcomes in children and adults, the same can most likely be said for older adults in later stages of life. It was hypothesized that high hope should be associated with greater levels of life satisfaction in older adults, and the results of this study support that contention. It was also asserted that the experiences of older adults should include growth and be a time in which satisfying goals can be successfully and enthusiastically met; the majority of older adults in this sample shared a portrait of this experience.

Divergent findings. The major divergent finding was that education level was not correlated to, nor predictive of, life satisfaction or self-responsibility for wellness in this sample. This is contrary to literature which theorizes that those with higher education levels probably age more successfully (Vaillant, 2002); no empirical data on this theorized relationship was found during the literature review by this author. The results of this study do not support the previous assertion that education plays a role in these dimensions of aging. This puzzling finding is difficult to explain, but it could be that individuals who participate in community organizations, such as the ones from which this sample was drawn, are more intellectually active and hence more homogenous than their diverse educational levels would otherwise suggest. They might be engaging in some of

the many opportunities available for self-education, such as reading and the internet. Future research might seek to expand the definition of education in order to better understand its role in aging.

Contributions of findings to literature. The findings of this project could contribute to the literature of successful aging and positive psychology. This study represents an initial step in establishing empirical relationships which may lead to more sophisticated and applicable models for promoting successful aging.

Limitations

Design and internal validity. Obviously, there are limitations to the inferences that can be made in the statistical results. Confounding variables could exist that are unknown to the researcher, and no statements about causality can be made. We cannot say that any of the independent variables "caused" changes in the dependent variable; the reverse could also be true.

External validity and generalizability. Generalizability is limited for a number of reasons, primarily because the study focused on older adults, results cannot be generalized to any other age cohort. The sampling was convenient in nature, and the setting could have created a misrepresentation in the data. The majority of the sample most likely came from rural areas, and from church communities, which could have limiting impacts on generalizability to other populations of older adults.

Measurement. Limitations of measurement include the reliance on self-report, and also the limitations of a single episode data collection process. Changes in the environment in which the surveys were completed, some missing data, and possibilities such as social desirability biasing the results are all very real possible limitations.

Future Directions and Conclusion

Despite the fact that correlational data cannot prove causality, based upon logic and theory it seems likely that the presence of hopeful thoughts and positive self-evaluation of health status could increase life satisfaction and self-responsibility for wellness behaviors in older adults. Including hope promoting interventions for older adults, and perhaps even for middle-aged adults could contribute to the successful aging process of the next generation, specifically the baby boomer generation as it nears retirement age. Consideration of how people assess their own levels of functioning and how this process may be connected to hopeful thinking is another unexplored area of questioning, and future research should look more carefully at how these two variables interact and influence each other. Future directions for research should also include causal designs, and a larger sample would allow for the controlling of more variables and lead to more sophisticated and detailed results. Researching "hope" interventions would also provide useful information about its efficacy as a means of prevention and health promotion for older adults.

In conclusion, it is important to reiterate that this study represents only a preliminary step in researching successful aging within the realm of positive psychology. Establishing empirical relationships among these variables was a fundamental goal of this project because existing literature regarding successful aging and positive psychology is primarily conceptual in nature. The predominant research on aging tends to falsely substantiate and perpetuate negative stereotypes of older adulthood as a time of increased dependency, disability, loneliness, and pain. Society and dominant culture reflects this

bias in the research literature. If older adults subscribe to these beliefs, their sense of agency will most likely decrease, reducing goal directed behaviors and diminishing quality of life. Positive psychology research will instead lead to strength identification and enhancement in older adults, and will provide a fresh perspective for aging adults and the professionals who provide services to them. Society may over time learn to see later stages of life as a time to gain and enjoy life, and not overemphasize the losses. Results from this research and subsequent projects could lead to more effective means of promoting successful aging and preventing difficulties associated with aging before they begin.

Many members of the positive psychology family, such as hope, could play a powerful, strength promoting role in successful aging, as well as increasing quality of life across the lifespan. Positive psychology, including hope theory, asserts that humans can flourish and thrive across the lifespan. We can promote and support older adults as they learn to identify and work toward meaningful goals and focus on strengths, thereby increasing both their sense of well being as well as level of energetic enthusiasm for life. To play on a quote from Terence (190-159 BC), which states "Modo liceat vivere, est spes (While there's life, there's hope)", it may be as important and relevant to say "While there is hope, there is life".

APPENDIX A

DEMOGRAPHIC AND OPEN ENDED QUESTIONS

Directions: Please answer the following questions.

How old are you? _____

What is your gender? 1. Male
(please circle) 2. Female

What is your race/ethnicity?
(please circle)

1. Caucasian
2. Black/African American
3. Asian
4. Hispanic/Latino
5. American Indian
6. Other_____

What is your current marital status?
(please circle)

1. Single
2. Married
3. Widowed
4. Divorced

What is your highest level of education?
(please circle)

1. Elementary school
2. High School/GED
3. Technical/vocational
4. College degree
5. Graduate degree

Do you have companion animals in your environment on a regular basis? Yes No
If yes, please describe_____
_____

Do you participate on a regular basis in any of the following preventative health activities? (please circle)

Vitamins/Herbal Supplements
Tai Chi
Weight Training
Meditation/Prayer
Spiritual/Religious practice
Self-education about health and disease
Yoga
Walking
Massage Therapy
Healthy Diet practices
Other_____

What do you feel is important in order to age successfully?

Do you set goals for yourself differently now than you did when you were younger? If so, please describe the difference.

APPENDIX B

THE ADULT TRAIT HOPE SCALE

The Goal Scale
(Snyder, 1994)

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes YOU and put that number in the blank provided.

1 = Definitely False
2 = Mostly False
3 = Somewhat False
4 = Slightly False
5 = Slightly True
6 = Somewhat True
7 = Mostly True
8 = Definitely True

_____ 1. I can think of many ways to get out of a jam

_____ 2. I energetically pursue my goals.

_____ 3. I feel tired most of the time.

_____ 4. There are lots of ways around any problem.

_____ 5. I am easily downed in an argument.

_____ 6. I can think of many ways to get the things in life that are most important to me.

_____ 7. I worry about my health.

_____ 8. Even when others get discouraged, I know I can find a way to solve the problem.

_____ 9. My past experiences have prepared me well for my future.

_____ 10. I've been pretty successful in life.

_____ 11. I usually find myself worrying about something.

_____ 12. I meet the goals that I set for myself.

APPENDIX C

THE LIFE SATISFACTION INDEX

The Life Satisfaction Index
(Neugarten, Havighurst, & Tobin, 1961)

Directions: Here are some statements about life in general that people feel differently about. Would you read each statement on the list, and if you agree with it, put a check mark in the space under "AGREE." If you do not agree with a statement, put a check mark in the space under "DISAGREE." If you are not sure one way or the other, put a check mark in the space under "?." PLEASE BE SURE TO ANSWER EVERY QUESTION ON THE LIST.

	AGREE	DISAGREE	?
1. As I grow older, things seem better than I thought they would be.	____	____	____
2. I have gotten more of the breaks in life than most of the people I know.	____	____	____
3. This is the dreariest time of my life.	____	____	____
4. I am just as happy as when I was younger.	____	____	____
5. My life could be happier than it is now.	____	____	____
6. These are the best years of my life.	____	____	____
7. Most of the things I do are boring or monotonous.	____	____	____
8. I expect some interesting and pleasant things to happen to me in the future	____	____	____
9. The things I do are as interesting to me as they ever were.	____	____	____
10. I feel old and somewhat tired.	____	____	____

	AGREE	DISAGREE	?
11. I feel my age, but it does not bother me.	____	____	____
12. As I look back on my life, I am fairly well satisfied.	____	____	____
13. I would not change my past life even if I could.	____	____	____
14. Compared to other people my age, I've made a lot of foolish decisions in my life.	____	____	____
15. Compared to other people my age, I make a good appearance.	____	____	____
16. I have made plans for things I'll be doing a month or a year from now.	____	____	____
17. When I think back over my life, I didn't get most of the important things I wanted.	____	____	____
18. Compared to other people, I get down in the dumps too often.	____	____	____
19. I've gotten pretty much what I expected out of life.	____	____	____
20. In spite of what people say, the lot of the average man is getting worse, not better.	____	____	____

APPENDIX D

SELF EVALUATION OF LIFE SCALE

Self Evaluation of Life Function Scale (SELF)
(Linn & Linn, 1984)

Directions: Please answer the following questions by *circling* the appropriate number.

1. How has your health been over the past month?
    1. Very good
    2. Good
    3. Poor
    4. Very Poor

2. How much physical pain have you had over the past month?
    1. None
    2. Mild Pain
    3. Moderate Pain
    4. Considerable Pain

3. Are you able to use the telephone.....
    1. Without help
    2. With a little help
    3. With quite a bit of help
    4. Unable to use the phone

4. Are you able to get to places that are not within walking distances.....
    1. Without help, using a bus, taxi, car, etc.
    2. With a little help
    3. With quite a bit of help
    4. Can not travel even with help (need ambulance)

5. Are you able to go shopping for groceries or clothes.....
    1. By yourself, without help
    2. With a little help
    3. With quite a bit of help
    4. Can not go shopping at all.

6. Are you able to do most of the chores that need doing around the house....
    1. Without help, for example, cook, houseclean, garden, etc.
    2. With little help
    3. With quite a bit of help
    4. Cannot do chores at all

7. Are you able to handle your own money.....
    1. Without help, for example, write your own check, pay bills, etc.
    2. With little help
    3. With quite a bit of help
    4. Cannot manage money at all.

8. Are you able to dress yourself.....
    1. Without help, for example, picking out your own clothes, buttoning and zipping them, etc.
    2. With a little help
    3. With quite a bit of help
    4. Cannot manage at all

9. Are you able to take care of your appearance, such as comb your hair, shave, or cut your nails.....
    1. Without help
    2. With some help
    3. With quite a bit of help
    4. Cannot take care of appearance at all

10. Are you able to walk.....
    1. Without help
    2. With some help, such as a cane, walker, or crutches
    3. With quite a bit of help, such as from another person
    4. Cannot walk at all

11. Do you have trouble getting to the bathroom on time?
    1. Never
    2. Occasionally
    3. Frequently
    4. Cannot travel to bathroom, or have catheter/colostomy

12. Can you shower or bathe.....
    1. Without help
    2. With special devices to help you
    3. With someone to help you get in and out of the tub/shower
    4. Cannot bath or shower at all (must have bed bath)

13. Do you have any physical handicap that limits your daily activities?
    1. No, none
    2. Some limitation
    3. Much limitation
    4. Severe limitation

14. During the past month, approximately how many days have you been sick in bed?
    1. None
    2. 1-7 days
    3. 8-14 days
    4. 15 days or more

15. During the past month, how many days have you been in a hospital or nursing home?
    1. None
    2. 1-7 days
    3. 8-14 days
    4. 15 days or more

16. Please circle any of the following medications you are currently taking:
    1. Arthritis medication
    2. Pain killers
    3. Sleeping pills
    4. Allergy pills
    5. High blood pressure pills
    6. Pills for diabetes
    7. Heart pills
    8. Insulin
    9. Stomach medication
    10. Tranquilizers
    11. Cortisone
    12. Antibiotics
    13. Thyroid pills
    14. Seizure pills
    15. Chest pain pills (nitro)
    16. Water pills
    17. Laxatives
    18. Blood thinner medication
    19. Pills for breathing
    20. Circulation pills
    21. Other (list)_____
    _____

17. Directions: Please *circle* any of the following conditions your doctor has told you that you currently have at this time.
    1. Heart condition
    2. Circulation problems
    3. High blood pressure
    4. Anemia
    5. Diabetes
    6. Emphysema/Bronchitis
    7. Cataracts
    8. Stomach ulcers
    9. Broken bones
    10. Gall bladder problems
    11. Hernia
    12. Liver disease
    13. Kidney disease
    14. Urinary problems
    15. Parkinson's disease
    16. Stroke
    17. Arthritis
    18. Emotional problems
    19. Skin problems
    20. Cancer
    21. Other (list)_____
    _____

Directions: Please answer the following questions by circling the appropriate number:

18. How often do you see your friends and relatives?
    1. Often (daily or several times a week)
    2. Occasionally (about once a week)
    3. Infrequently (few times a month)
    4. Rarely or never

19. How often have you made telephone calls over the past month?
    1. Several times a day
    2. Daily
    3. Not every day, but at least weekly

4. Rarely or never used the phone

20. How often have you worked on a hobby or some activity of interest over the last month?

1. Often
2. Occasionally
3. Infrequently
4. Not at all

21. How often have you attended meetings at associations, church, organizations, get-togethers, or clubs over the past month?

1. Often (several times a week)
2. Occasionally (weekly)
3. Seldom (once during the month)
4. Rarely or never

Directions: Please show how much the following have bothered you in the past month by *circling* the appropriate number to the right of each symptom.

	Not at all	A Little	Quite a bit	Extremely
22. Nervousness or shakiness inside	1	2	3	4
23. Feeling low in energy or slowed down	1	2	3	4
24. Trembling	1	2	3	4
25. A feeling of being trapped or caught	1	2	3	4
26. Feeling lonely	1	2	3	4
27. Heart pounding or racing	1	2	3	4
28. Trouble catching your breath	1	2	3	4
29. Feeling blue	1	2	3	4
30. Soreness of your muscles	1	2	3	4
31. Numbness or tingling in parts of your body	1	2	3	4
32. Heavy feelings in your arm or legs	1	2	3	4
33. Feeling hopeless about the future	1	2	3	4
34. Weakness in parts of your body	1	2	3	4

Directions: Read the statements below and indicate whether or not you agree with the statement by *circling* the appropriate number above each statement.

35. I worry about my physical health.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

36. These are the very best years of my life.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

37. I feel that I have a number of good qualities.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

38. Becoming a success is a matter of hard work; luck has little or nothing to do with it.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

39. I am just as happy as when I was younger.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

40. When I think about the kind of person I have been in the past, it doesn't make me feel very happy or proud.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

41. What happens to me is my own doing.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

42. Life has meaning to me.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

43. Most people don't realize the extent to which their lives are controlled by accidental happenings.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

44. This is the dreariest time of my life.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

45. Many times I feel that I have little influence over the things that happen to me.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

46. I take a positive attitude toward myself.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

47. I have enough work activities or chores to do during the day.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

48. I get a sense of satisfaction out of work activities or chores I do.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

49. In almost every respect, I'm very glad to be the person I am.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

50. Thinking back, in a good many ways I don't think I have liked myself very much.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

51. I wish I could have more respect for myself.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

52. The things I do are as interesting to me as they ever were.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

53. I feel that I am a person of worth, at least on an equal basis with others.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

54. My life could be happier than it is now.

1.	2.	3.	4.
Strongly agree	Agree	Disagree	Strongly Disagree

APPENDIX E

SELF-RESPONSIBILITY FOR WELLNESS SCALE

Self Responsibility for Wellness Scale
(McConatha & McConatha,1985)

Directions: Please circle the appropriate number for each statement.

1. Are you able to deal with most problems which arise in your life?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

2. When you are nervous do you eat more than usual?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

3. If you are upset do you keep your feelings to yourself?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

4. Do you have interests which keep you from getting bored?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

5. Are you in good physical shape?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

6. Do you have the energy to do the things you want to do?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

7. Do you exercise for 15 minutes 3 or more times a week?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

8. Do you eat nutritious and regular meals?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

9. Are you able to dress yourself independently?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

10. Are you able to bathe yourself?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

11. Do you plan how you will spend your day?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

12. Do you watch TV at least 3 hours a day?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

13. Do you have to depend on others for help?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

14. Do you smoke in your daily activities?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

15. Do you have hobbies which keep you busy?

1.	2.	3.	4.	5.

Always	Mostly	Sometimes	Seldom	Never

16. Do you feel medical checkups are worthwhile?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

17. Do you plan at least one activity a day which you enjoy and look forward to?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

18. Are you satisfied with how you feel?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

19. When you get frustrated are there things you do to relax?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

20. Do you feel good about yourself?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

21. Do you think your life is challenging?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

22. Do you set goals for yourself?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

23. Do you drink over 2 oz. of alcohol a day?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

24. Are you ever depressed?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

25. Do you wish you could be more active?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

26. Do you feel lonely?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

27. Do you have symptoms of pain?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

28. Do you have feelings of discomfort?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

29. Do you feel tired and rundown?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

30. Do you think about how you are spending your time?

1.	2.	3.	4.	5.

Always	Mostly	Sometimes	Seldom	Never

31. Do you think your life is exciting?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

32. Do you enjoy trying out new ways of doing things?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

33. Are you able to relax?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

34. Do you get together with people who have similar interests?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

35. Do you feel you can choose the kind of social activities you want to participate in?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

36. Do you enjoy talking with others?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

37. Is there someone you can call and visit if you want to?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

38. Do you feel you can express your feelings to others?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

39. Do you wish you had more friends?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

40. Do you have people you can trust?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

41. Would you like to see your friends more than you do?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

42. Do you start conversations with others?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

43. Are you able to cooperate with others when appropriate?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

44. Are you able to take charge of situations when you have to?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

45. Do you feel you control your life?

1.	2.	3.	4.	5.

Always	Mostly	Sometimes	Seldom	Never

46. Do you think you can do things which will change your life?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

47. Are you satisfied with your life now?

1.	2.	3.	4.	5.
Always	Mostly	Sometimes	Seldom	Never

APPENDIX F

INFORMED CONSENT FORM

Informed Consent

The purpose of this study is to learn more about some characteristics and experiences that may contribute to successful aging. If you choose to participate in this study, you will complete measures that contain questions about your goals, relationships, beliefs, and health. It will take about 45 minutes to complete the measures. There are no right or wrong responses to the items on the measures. There are no known risks involved in completing the measures and many people find that they learn something about themselves from answering the items. You may benefit by participating in this study through increased awareness and self-understanding. You will also be contributing to knowledge regarding researchers better understanding of the aging process. You will receive $10.00 for your participation in this research.

Only volunteers are asked to participate in this research. In addition, you may refuse to participate at all, refuse to answer certain questions on the measures, or discontinue your participation at any point with no penalty or loss of benefit to which you are otherwise entitled.

Your privacy will be protected to the maximum extent permissible by law. The following precautions will be taken to assure confidentiality. Information that you provide will not be associated with your name or any other identifying information. Your name will not appear on any of the measures and your name will not be included in any written report. Responses will only be associated with a participant identification number, which is based upon the order in which the instrument was administered. Knowledge of your participation in this study is limited to the principal investigators, however, we will only be aware of your participation in the study and we will not know

which measures you completed. Questionnaire responses and demographic information will be stored on the Principal Investigators' personal computers and will be kept in password-protected files.

If you have any questions about this study you may contact the Principal Investigators (Lori Gray, (616)329-6911 or Dr. Nancy Crewe, (517)432-0606; Erickson Hall, MSU, East Lansing, MI 48824). Should you have any questions or concerns about your rights as a research participant, you may contact the chairperson of the University Committee on Research Involving Human Subjects (Dr. Ashir Kumar, UCRIHS office, 246 Administration Building, Michigan State University, East Lansing, MI 48824, 517-355-2180, ucrihs@msu.edu). Please make sure that you have all of your questions answered before you sign this consent form.

If you are looking for further information or referrals in regards to community resources for older adults in your community, please contact Saginaw County Community Mental Health Authority 800-258-8678 or the First Ward Community Center 989-753-0411.

If you have read the information above and consider yourself to be fully informed about this research study, please print and sign your name below indicating your agreement to participate in this research on a purely voluntary basis. Keep the other copy of the consent form for your records.

I voluntarily agree to participate in the procedure and I have received a copy of this description.

(Print your name here)	**(Sign your name here)**	**(Date Signed)**

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