TELEVISION VIEWING AND OLDER ADULTS:

THE EFFECTS OF ACTIVE VIEWING, PASSIVE VIEWING, AND VIEWING TYPE

by

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ABSTRACT

The purpose of this study was to determine if statistically significant differences exist between older adult television watchers based on amount time spent watching television, whether or not viewers actively paid attention to what they were watching or more passively viewed television, and the sex of the viewer, on measures of depression, anxiety, loneliness, and life satisfaction. A convenience sample of 100 older adults residing in southern California completed a questionnaire and maintained a log of 7-days of viewing habits. Results suggest that total time spent watching television is negatively correlated with life satisfaction ($p<.05$) and post hoc testing suggested that people who watch a heavy amount of television experience significantly lower life satisfaction in comparison to both light and moderate viewers. A statistically significant multivariate main effect of gender and amount of viewing was found, with males ($M = 4.0$, $SD = 3.16$) being found to be significantly more depressed than females ($M = 2.4$, $SD = 1.72$) overall, and the largest difference between group means was found between males who are heavy television watchers ($M=5.0$, $SD=3.02$) and females who are light television watchers ($M = 1.7$, $SD = 1.28$). These findings are explored in light of the clinical implications for assessment and intervention and as a research foundation to build upon in generating guidelines and recommendations for healthy and unhealthy amounts of television viewing. Finally, the concept of television viewing within healthy limits functioning as a means of enhancing the lives of older adults is considered.

This dissertation is dedicated to Geoff whose belief in me never wavered and without whom this would simply not have been possible.

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"We've put more effort into helping folks reach old age than into helping them enjoy it."

Frank A. Clark

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CHAPTER I

LITERATURE REVIEW

Introduction

Older adults comprise a large segment of the population of the United States today. In the near future, their numbers will expand exponentially due to the very large baby boomer population reaching age 65 and above beginning in the year 2011 (U.S. Census Bureau, 1996). This phenomenon, coinciding with the current trends of lower birth rates and increased longevity, are creating a large demographic shift in the age composition of the United States, in essence, a graying of America (Nordhus, VandenBos, Berg, & Fromholt, 2007; U.S. Census Bureau, 1996). The study of adult development and aging is a relatively new area of psychology, however, having emerged in the 1960s as an expansion of the existing field of developmental psychology, which prior to this, had focused primarily on research regarding childhood and adolescence (Whitbourne, 2001). As the population demographics shift, the psychological research will need to likewise adapt in order to ensure that the needs of this important group are being adequately met. Areas that will need further exploration include: retirement, income, health care, housing, and psychological services, just to name a few (Nordhus et al., 2007).

Older adults have more leisure time than any other age group. The United States Bureau of Labor Statistics' 2007 American Time Use Survey found that adults aged 55 – 64 have about 5.2 hours per day for leisure activities, adults aged 65 – 74 have 6.7 hours, and adults aged 75 and above have 7.6 hours per day to devote to leisure pursuits (U.S.

Bureau of Labor Statistics, 2007). Much of this copious amount of free time is devoted to watching television, the single most common leisure activity of those aged 65 and older. Employed adults in this age bracket report watching 2.5 hours of television daily, and unemployed/retired older adults report watching 4.3 hours daily (U.S. Bureau of Labor Statistics, 2007). It has been estimated that 89% of older adults watch television daily, and that 64% of that group watch more than 3 hours daily (Schreiber & Boyd, 1980). In fact, for adults aged 65 and over, watching television occupies a larger percentage of time each day than any other single activity except sleeping. With improvements in the way we watch television today (digital cable, satellite dishes, better quality television picture and sound, and close captioning for the hearing impaired, for example), an astronomical expansion of available channels being beamed into the average living room, and more niche programming designed to appeal to very specific groups and interests, it is highly unlikely these numbers will decline any time soon. Despite this, however, very little research has been conducted so far exploring the particular role television viewing plays in the lives of older adults.

Why would looking at TV viewing be important? In the lives of children, television viewing has been linked to many ills including increased obesity (Jenvey, 2007), increased aggression (Huesmann, Lagerspetz, & Eron, 1984), and poorer school performance and adjustment (Hagborg, 1995). In older adults, however, there is a much more limited body of research. Television research with a general adult population has found a link between increased stress and increased television viewing (Anderson, Collins, Schmitt, & Jacobvitz, 1996), and between heavy television viewing and depression (Sidney et al., 1996). Within the older adult population, no studies that

specifically examine television watching and depression were found with the exception of one which explored older adults' perceptions of the meaning of television viewing habits and their perception of a link between viewing habits and depression (Nguyen, Wittink, Murray, & Barg, 2008). Based on their findings, Nguyen et al. strongly recommend that researchers look more closely at the possible relationship between viewing habits and mood symptoms, suggesting that this would be an excellent addition to diagnostic questions mental health professionals ask older adults to assess mood symptoms. Currently, however, there is only anecdotal evidence to support a link between these habits and potential mood disturbances.

It is also quite possible that television viewing has a positive role in the lives of many older adults. In general adult populations, television viewing has been found to function in a soothing capacity for the anxious individual or a stimulating capacity for the depressed person, varying on the type of program watched (Potts & Sanchez, 1994). Television can educate, provide access to people and places one has never met or visited, remind one of the past, and give a glimpse of possible futures. It can entertain, enlighten, and can fill a quiet room with the sounds of lively chatter. It seems likely that some of these positive functions could add value to the lives of people who do not get as much human interaction as they might wish, and many older adults are limited by physical obstacles to seeking out environments where they could interact with others. These obstacles can include disability, frailty, or lack of safe and reliable transportation. The fact that clinicians do not have literature to guide their recommendations to clients regarding television watching in later life, either to support recommendations of viewing as an adaptive form of coping or to signal clinicians to assess viewing as a potential

warning sign of mood disturbance, is problematic. It is clear that older adults *are* watching, and are doing so frequently. Watching television is the primary leisure activity of adults aged 70 to 105 (Horgas, Wilms, & Baltes, 1998), of adults 65 and older, and particularly of unemployed/retired adults 65 years of age and older (U.S. Bureau of Labor Statistics, 2007). With this much time being devoted to this one specific activity, it is imperative to gain some understanding of what effect all of this viewing is having on quality of life and the well being of older adults. There is a distinct possibility that television viewing can foster life satisfaction. It is also possible, however, that beyond a certain amount of daily viewing, television watching starts to displace other activities that might provide greater benefits for overall well being, thus diminishing quality of life. If so, it seems imperative to develop some understanding of that threshold and create guidelines to help older adults and health providers better assess and make recommendations for viewing (Fouts, 1989).

There could be multiple factors of television viewing that could determine whether viewing takes on positive or negative roles in the lives of older adults. These include: amount of viewing and type of viewing – active or passive. The way these viewing variables correlate with various psychological states will be explored in the present study. These psychological states include: (a) anxiety, (b) depression, (c) loneliness, and (d) life satisfaction.

The following review of the literature will begin with an exploration of television viewing effects that have been found in various populations, including a discussion of a variety of factors that have been found to be salient. These factors include the ways people watch – actively versus passively as well as the amounts of time spent viewing for

various groups. Next, mood and quality of life issues for older adults will be discussed. Areas of consideration will include depression, anxiety, loneliness, and life satisfaction and the discussion will include both research in these areas and reasons why these factors are considered so difficult to assess in the older adult population in particular.

The purpose of the present study is to explore the complex relationship between older adults' psychological functioning and their television viewing habits. Since there is currently a dearth of research regarding this topic with this population, this study is intended to be a preliminary exploration to lay the foundation for future studies.

A Brief History of Television Research

According to Wartella, the earliest strains of research concerning television viewing tended to focus on the effects of television viewing on children and adolescents. A large number of these early studies were done in the 1970s, when much attention was being paid to the potential effects of violent media images on children. One landmark piece of research examining the potential link between media and violence in youth was the first study of the Surgeon General's Scientific Advisory Committee on Television and Social Behavior, commissioned in 1972. At the time, virtually all television studies focused on the issue of violence in the media and other potential effects, both positive and negative, went largely unexamined (Wartella, 2007).

By the mid-seventies, however, the research field opened up as the educational potential of television for youth came into focus with the Children's Television Workshop's (CTW) launch of the television program, *Sesame Street* and the Action for Children's Television (ACT) commencement of a campaign to decommercialize children's television. Now researchers became interested in exploring some new, more

potentially positive directions of inquiry in hopes that the increasingly omnipresent force, television, might be able to be harnessed for good (Wartella, 2007).

The final area of inquiry that opened up in this fertile period of media and youth studies was that of advertising and children. Questions on this topic developed naturally alongside efforts to create high quality children's educational programming. These efforts were spearheaded by ACT. Much research resulted from attempts to advocate for children in Congressional investigations, to understand more about what products should and should not be advertised on Saturday morning cartoons, for instance, and other kid-specific areas where it seemed television might be exerted an undue influence on young, developing minds (Wartella, 2007).

Though much work resulted from this prolific period of questioning and examining the media, all attempts at limiting advertising aimed at children ultimately failed and very little changed in regards to both advertising and media violence. However, television's positive aspects were finally being harnessed for the benefit of young audiences, and *Sesame Street* both endured and inspired the creation of more high quality television programming for children (Wartella, 2007). Also, from this fledgling research, a spotlight was shone on the previously unexamined member of most households: the television, illuminating both positive and negative aspects, and that spotlight has never entirely gone away. Since the 1970s, there has been attention paid to how this ubiquitous household object is affecting those who spend much of their time viewing it. New questions have emerged, including issues of obesity and health (eg., Jenvey, 2007), as well as new fields of inquiry such as cultivation research, an area of

study that examines the influence of television's portrayals of the world on its viewers (eg. Shrum, Burroughs, & Rindfleisch, 2005; Woo & Dominick, 2001).

So after all of these decades of inquiry, what do we know about television's effects on children? Morgan sums it up nicely:

> Television can potentially affect young people's behaviors regarding violence and aggression as well as sex; it can affect what they buy, how they want to dress and act, how they define their identities (and see others), and how they come to understand their place in the world. It can affect what they eat and what they read – even how much they sleep. It can offer them (for good or ill) ways of resolving their own personal problems as well as the larger society's. It can open them up to rich new ways of envisioning the world or numb them with mindless, unimaginative formulaic fare that discourages broader intellectual exploration. It can provide a common coin of exchange to facilitate family or peer interaction or set the stage for isolation or conflict (p. 153).

It is likely that older adults experience television in a similarly wide range of ways, sometimes with life enhancing effects and other times experiencing negative outcomes from their viewing experiences. Obviously older adults will not have the developmental concerns that have been a major focus of concern in children's viewing, so not all areas of research interest in children will be similarly useful to study in older adults. However, there are more parallels than might first be apparent. For example, worries about how media violence effects developing brains in children lead to questions about how exposure to that same incessant bombardment of violent images might effect older adults'

perceptions of the violence in the world, feelings of anxiety, fear, and tendencies to engage in isolating behaviors as a result of believing the world to be a dangerous place.

Older Adults: A Lifetime of Viewing, but a Dearth of Research

There are compelling reasons to address the gap in the literature that represents older adults viewing experiences. Though there is some evidence that television exerts more of an influence on children than on adults (Morgan, 2007), it is of interest what lasting effects a lifetime of such viewing will have on adults who have been raised on a lifetime of television viewing. Today's 65-year olds have had television available to them for the majority of their lives. By the time they were 5 years of age (late 1940's), over 1 million United States households had a television set (Abramson, 2003). Particularly in urban areas, most of today's older adults would have grown up with someone – themselves, a friend's family, a neighbor or relative – with a television in their home. It was common in these early years of television, for neighborhood families to get together at the home of the family who owned a television set to share the experience of viewing a popular program. Today's 65-year olds have literally grown up with television, and this phenomenon will be more common with each successive generation as television grows in popularity. In a few short years, the generation entering seniority will not be able to recall a time when they did not watch television (Abramson, 2003).

Fouts (1989) identified four major reasons why researchers should examine television watching in older adults. The first is that television watching is an important activity for older adults, as evidenced by the amount of time they spent engaged in this pursuit, a percentage of leisure time that has been found to be greater than that percentage allocated to any other waking pursuit. Second, television use has been largely ignored by

scientific research and a dearth of articles produced regarding the effects of this ubiquitous medium on older adult viewers. Since today's older adults have spent the majority of their lives with television a common fixture in the home, there is much to learn about television's influences and effects on individuals throughout the lifespan. The heaviest viewers of television are the very young and the elderly, so it will be very interesting to learn about the first generation that has had the opportunity to utilize television viewing on both sides of the developmental spectrum – as children and as older adults, tuning in for a lifetime.

The third reason for studying television viewing in older adults, according to Fout (1989) is that there are no guidelines currently in place for health care workers about television viewing. In the absence of such guidelines, health care workers must make guesses about how to view their clients' television watching. It is likely this is frequently viewed as a negative, and that television watching might be discouraged, potentially disallowing older adults from reaping the benefits that some television watching might have. Right now, there is simply little to no evidence supporting TV's positive or negative effects among the elderly population. Finally, the fourth reason cited was that studying TV viewing among this group would allow the scientific community to help harness the benefits of television for older adults by making recommendations that will improve upon whatever positive effects exist. The scientific community could work together with those who produce television to create better shows for older adults much like advocacy groups did for children's broadcasting in the 1970s (Wartella, 2007). This could potentially enhance quality of life for older adults in significant ways and that possibility alone is more than sufficient reason to pursue this field of inquiry, to ask the

questions that might unlock the factors that make television a positive force in the lives of seniors.

How and Why Adults Watch Television

Active versus passive viewing. It is readily apparent that not all television viewing is conducted with the same level of intensity and intent to view particular content. Sometimes viewing is an activity that is given a high level of focused attention towards a specific program choice, while other times viewing seems far less purposeful and intentional to the viewer, consisting of turning on the television and watching whatever appears with little discrimination. This distinction has been referred to as that of active versus passive viewing (see Adams, 2000). An instance of passive viewing would be one where an individual reports the television set was on, but cannot recall much of what was in the program (perhaps reporting that the television was left on simply to add noise to an overly quiet home, or when the individual turned on television but napped instead of intently watching a program). Active viewing, on the other hand, refers to a focused, intentional viewing where a program is chosen and attention is paid to content of the program. In this type of viewing, the individual would be expected to be able to discuss what was viewed and might experience an emotional reaction to content of the program. This distinction is an important one to make since past research has shown that these two categories of viewing are distinct and serve different functions in terms of potential mood regulation. When content is actively viewed, television watching has been found to contribute to mood regulation, with individuals showing tendencies towards choosing categories of programs to view that might serve to mediate the effects of an anxious or depressed mood (Morely, 1993). Passive viewing, on the other hand, has not

been linked to a mood regulating effect. This has been explained by noting that when passively viewing, the viewer has not consciously digested the emotional content, and according to needs gratification theories, active viewing would be where a viewer has made a conscious choice to seek out certain material and consumes it attentively (Morley, 1993; Webster & Lichty, 1991; Webster & Wakshlag, 1983).

One notable study looked at television's effect on cultivation of material values via an active versus passive viewing comparison (Shrum, Burroughs, & Rindfleisch, 2005). Though researchers in this study did not expressly use the terms "active" and "passive" viewing, their comparison between viewers who reported that they "paying more attention while viewing" versus those who reported that they "pay less attention while viewing" fit well with active versus passive theories of viewing previously described. They hypothesized that those who reported paying more attention while viewing would experience enhanced cultivation effects the effects of television viewing on materialism. "Cultivation effects" refers to potential distortions of reality that might occur from believing the world that television presents is analogous to the world as it is. Individuals who have cultivated perceptions about the world from viewing would be likely to believe that high-status products and services are common, for example, or that there is a high rate of violent crime (Shrum, Burroughs, & Rindfleisch). Thus, the researchers surmised that those who are both heavy viewers of television and are also more attentive viewers are more likely to experience greater cultivation effects, since they will have encoded the most information from their viewing episodes, as well as having more viewing episodes overall. This hypothesis was supported, thus lending support to the notion that there is a difference between active and passive viewing that

determines how televised material gets encoded by the viewer (Shrum, Burroughs, & Rindfleisch). If there were not this distinction, than it would be expected that paying more attention or paying less attention while viewing would lead to no differences in viewers' cultivation of materialism.

In summary, there has been some preliminary research suggesting a different effect for television viewing predicated on the material being viewed actively or passively. For something to have the effect of being able to regulate mood seems to entail some kind of processing of emotional content, which in turn seems to entail that the viewer has paid attention to the material (Adams, 2000; Morley, 1993; Shrum, Burroughs, & Rindfleisch, 2005; Webster & Lichty, 1991; Webster & Wakshlag, 1983). In the absence of this, it seems unlikely that emotional associations will be made and thus unlikely that emotional regulation will occur. Because of this, it is likely that there is a difference between those who watch television passively and those who view actively.

Motivations for viewing. Why people watch television is an important question to ask in order to begin understanding the effect viewing has on the individual. Mundorf and Brownell compared college students and older adults' television viewing and found that men and women in both age brackets showed overwhelming consensus as to *entertainment* being their main reason for television watching (1990). *Information* was the second most frequently endorsed reason for viewing and was endorsed more commonly in the men in both age brackets and least commonly cited by the college-aged women. *Companionship* was given third most commonly by the older women, while *other* was the more common third choice of both age brackets of men. The older adult women endorsed watching television for *companionship* more often than any other

group, though they still endorsed watching for *information* somewhat more frequently. The college-aged women were the only group who endorsed watching for *information* less often than for *companionship*. Men, both older and younger, cited watching for *companionship* as their least likely reason for viewing (Mundorf & Brownell, 1990).

Finn and Gorr (1988) used factor analysis to isolate two distinct clusters of motivations that drive television viewing – *social compensation* and *mood management*. *Social compensation* motivations are motives that reflect "inadequacies in the viewer's social environment," (p. 139), such as lack of company/companionship, lack of leisure outlets and resources, and escape. These represent attempts by the viewer to address levels of social deprivation from mild to serious. *Mood management* motivations reflect "generally unconscious psychological need to regulate physiological arousal," (p. 139), and include such motivations as relaxation, entertainment, arousal, and information seeking. These represent attempts by the viewer to achieve an optimal state of arousal – for example, a bored person might address perceived lack of stimulation (i.e., boredom) by viewing exciting television programs, or an anxious person might seek out something calming to watch in an attempt to self-soothe. Finn and Gorr include information seeking motivations in this category due to previous findings that attribute viewer motivations for seeking out news programs to seeking "arousal" and "exciting entertainment," both of which fit neatly in with other mood management motives (Rimmer, 1986; Rubin & Perse, 1987).

Using these two distinct clusters, Finn and Gorr (1988) made a number of different hypotheses about the interplay of television viewing and variables such as loneliness, quality of life, loneliness, and perceived social support. They posited that

individuals use television viewing to gratify needs. To allow predictions to be made about what needs would be satisfied first, Finn and Gorr framed their hypotheses within Maslow's Hierarchy of Needs Theory, which states that needs of individuals can be conceptualized as occupying a hierarchical ordering, and through understanding the rank order of importance of various needs, predictions can be made about how individuals prioritize activities and preference motivations. According to Maslow, individuals will seek to satisfy more fundamental survival needs first before attending to more existential concerns, since if basic needs are not met, the individual will not survive to attend to the higher level needs. Once basic physiological needs such as breathing, food, water, and sleep are satisfied, the individual shifts attention to safety needs, then love and belongingness needs, self-esteem needs, and finally self-actualization needs (Maslow, 1943). Finn and Gorr applied Maslow's framework to their work on viewing motivations to explain how the individual chooses what needs to satisfy first when he or she has several needs that might motivate a viewing episode. Conceptualized in this way, social compensation television watching motivations would fall in the category of love and belongingness (middle level) needs, while mood regulation would be seen as much more fundamental, falling into the category of physiological (lowest level) needs. Mood regulation is physiological because it is best conceptualized as a drive to restore homeostasis, whereby the individual is seeking to self-regulate mood to a comfortable baseline of functioning. Therefore, an individual will seek out television watching for mood regulation before viewing for social compensation reasons if both types of needs are currently unmet.

Fout (1989) found that older adults endorse watching television for information seeking and for entertainment more than any other reasons. These results suggest that older adults tend to view television for the same reasons as do non-elderly adults. However, there were a few motivations that were relatively common in the older adult sample that were not as common to other age groups, including: as a source of topics for conversation, to schedule their daily activities, and for substitute companionship. Television viewing as conversation topics has been found to be one way that older adults bond with friends over common interests. By watching the same programs, they have fodder for discussions and common experiences to share with others. Scheduling daily activities by use of television viewing refers to planning the day in accordance with the time favorite programs air. This can provide structure to a day, and it seems intuitively clear why older adults who are retired and used to a more scheduled day might crave the timetable of a television schedule to contain the boundless stretches of time that constitute the average retiree's days. Watching television for substitute companionship was also noted as a motivation, suggesting that loneliness might compel older adults to seek refuge in television viewing when social support seems inadequate to meet socialization needs. As will be discussed in a subsequent section on loneliness, loneliness is a much more complex matter than simply having or not having a particular amount of social support, though whether television viewing exacerbates or mitigates this condition is underdetermined at present.

In summary, there are many theories as to what motivates people to watch television. Certain theoretical frameworks allow us to understand these motivations and to explain how an individual decides between competing motivations. Theory also allows

us to make some tentative statements about the meaning the act of viewing has for the individual. Several of these will be used to explain potential benefits that television watching might have for elderly individuals. Among these are mood management theory, a way of accounting for benefits viewing might offer to the depressed or anxious individual (Anderson, Collins, Schmitt, & Jacobvitz, 1996; Finn & Gorr, 1988) and social compensation theory that accounts for a positive role television might offer in filling in for companionship at times when the social network is unavailable (Finn & Gorr).

Mood management theory provides a conceptual frame for explaining how television viewing can fulfill a mood regulating function, helping people cope with unpleasant emotions by seeking out stimuli that might help restore homeostasis by stabilizing mood (Anderson, Collins, Schmitt, & Jacobvitz, 1996; Finn & Gorr, 1988). This theory uses Maslow's hierarchy of needs model to explain how people decide which needs to attend to first. In this model, individuals would be expected to be motivated towards satisfying the drive to restore homeostasis before attending to higher order needs. This would explain why an anxious or depressed individual might spend time alone watching television despite also feeling lonely and craving contact with others. This same individual might exhibit this solitary behavior despite having a social network available to him or her – the drive to restore emotional balance would simply exert more force upon behavior. This provides a way to conceptualize why someone might feel lonely yet also report spending the majority of leisure time watching television rather than interacting with others. To examine this more closely, it will be important to note whether anxiety and/or depression are present alongside loneliness, and if so, to determine if the genre of programming selected for viewing seems to be related to contradicting mood

symptoms (i.e. potentially restorative of homeostatic emotional regulation). Emotional regulation and social compensation provide a framework to view functional coping uses of television, and those who use these strategies successfully are expected to evidence lower rates of these mood symptoms after viewing than those who are unsuccessful at emotional regulation or social compensation. Successful mood regulation and/or social compensation will coincide with lower overall viewing and positive change in self-reported mood after viewing.

Theories Relevant to Present Study

Selective optimization through compensation (SOC). With aging come age-related declines, some inevitable and some particular to the individual. For human beings to deal with change there must be a process of adaptation that takes place. Researchers have long wondered how older adults deal with these changes, particularly since many changes that begin somatically have repercussions that change life circumstances in pervasive and global ways. Despite this fact, however, it has also been noted that subjective well-being indicators tend to remain stable throughout the life course, a phenomenon that has been referred to as stability despite loss and is often taken as evidence that older adults are highly adaptable to change, moving back towards homeostasis when a change in functioning occurs (Jopp & Rott, 2006; Staudinger, Freund, Linden, & Maas, 1999).

A theory of successful aging was designed to account for why some people enjoy a more successful experience of aging than others. *Selective optimization with compensation* (Freund & Baltes, 1998) refers to a theoretical process whereby more adept older adults maximize the abilities they have to allow them to compensate successfully

for any deficits they might be experiencing. It is an ongoing process of optimizing abilities in order to balance out gains and losses, and when done well, can allow the older individual to continue to adapt to the changes that occur throughout the lifespan, returning time and again to homeostatic balance by replacing old ways of getting needs met with new ones whenever necessary.

Selective optimization through compensation (SOC) (Freund & Baltes, 1998), offers an explanation of how television watching might be an effective leisure strategy for older adults with impairments to the ability to participate in leisure activities they once enjoyed. If, for example, a person had once read books to help feel less anxious, perhaps he or she might find refuge in a serialized television program that has a strong storyline. Television could be used, as described above, for mood regulation purposes or for social compensation when other strategies to meet these needs are no longer available as a consequence of an aging related deficit. This would account for both the large amount of leisure time older adults report spending watching television and the persistence of overall happiness noted throughout the lifespan, a persistence that has been found to be relatively unaffected by functional disability, death of loved ones, and other factors common to later life that might be expected to diminish overall life satisfaction (Jopp & Rott, 2006; Staudinger, Freund, Linden, & Maas, 1999).

Cognitive theory. According the cognitive model proposed by Aaron Beck (1976), thoughts and beliefs lead to emotions and behaviors. When thoughts about the self, others, and the environment are positive, the individual will tend to experience low distress, less depression, anxiety, and loneliness, and higher life satisfaction. It is possible that television's cognitive component might function to influence mood, explaining why

a cheerful show can alleviate a negative mood, for example. In order for this to happen, however, the individual would have to attend to the cognitive component of the viewed material. It is possible to watch television without paying attention to the material being viewed (*passive viewing*) and according to the tenets of cognitive theory, this type of viewing would not have the ability to change mood through affecting cognitions. In order for mood change to result from a cognitive shift, therefore, material would need to be *actively viewed.* Television has been shown to have the ability to cause mood shifts and alleviate distress in previous studies (see Morley, 1993; Webster & Lichty, 1991; Webster & Wakshlag, 1983) and one plausible explanation for how this occurs is offered by cognitive theory.

Given some of the most recent research regarding the relationship between media use habits among adults and their mood (see Comer, Furr, Beidas, Babyar, & Kendall, 2008; Kraut et al., 1998; Potts & Sanchez, 1994; Robinson & Martin, 2008) it is likely that some older adult viewers will experience depression, anxiety, loneliness, and low life satisfaction, in addition to reporting television viewing. The cognitive model offers an explanation of how television could function to alleviate such signs of distress, however, for the present study the difference between active and passive viewing will be explored to understand how television viewing can sometimes alleviate distress, while other times seemingly offer no assistance. There has been little research into the potential that television might function as a form of cognitive coping for distress, but given the link between active viewing and the encoding of viewed material found by Shrum, Burroughs, and Rindfleisch (2005) and the explanation of how cognitions effect mood offered by Beck (1976), it is hypothesized that active viewing will serve as a better coping

mechanism than passive viewing, and those who report more active viewing than passive viewing are expected to be lower in distress overall.

Summary of theories. In summary, it seems apparent that older adults, just like all people, can be good or poor at coping. Television is likely to be one of many tools they might use to enhance coping through viewing selectively in an effort to alleviate distress. Through SOC theory, a picture emerges of how television could be used in a positive way by older adults who are skilled at adapting and weathering life's changes and the losses of aging. The successfully aging individual will use tools at his or her disposal to assist in compensating for deficits and negative changes in functioning.

When television watching is overused, however, it can leave no room for other activities, causing the individual to isolate and withdraw from other meaningful activities and from the company of others. SOC gives an excellent model of how the individual can fall into this pattern of behavior as well as an explanation of why it is difficult to break the cycle once it has begun. The individual begins watching television as a way to socially compensate, as explained in SOC theory as a successful aging technique. However, if he or she uses television watching instead of exploring other ways of optimizing his or her abilities, the act of viewing will become a form of avoidance rather than a form of optimization. Thus, it will be important to look at amount of television viewed as well as mood variables to isolate whether the highest viewers differ from those whose viewing is more moderate. High viewing, particularly with high loneliness and low life satisfaction, would suggest the possibility that the individual is using television watching instead of more potentially satisfying, adaptive activities. Moderate viewing,

along with high life satisfaction and low mood symptoms would suggest a possible mood regulation ability that is one of the signs of an individual adept at SOC.

The cognitive model offers an explanation of how active viewing can function to alleviate distress by working on the cognitions that contribute to negative moods and feelings of loneliness (A. Beck, 1976; J. Beck, 1995). By contrasting the anxiety, depression, loneliness, and life satisfaction of older adults who view actively most often with older adults who report more passive viewing, it is expected that differences will be found, suggesting that some older adults are successfully using active viewing to aid in coping with unpleasant moods and negative feelings, and to enhance overall life satisfaction.

Studies of Other Media

Internet. Since television viewing has not been frequently studied in the psychological literature, particularly in relation to older adult viewers, an analysis of studies involving use of similar media is important to discuss here in order to provide the background for the present study. New technologies are emerging all the time and many of these have been preliminarily examined in regards to potential applications for use with older adults. Among these are the Internet, virtual environments, videogames like the Wii game system that incorporates physical movement into game play, and various "brain trainer" video games that can be played on computer or game console and promise to keep memory sharp (Allen, 2007; Hutson, 2007; Kraut et al., 1998).

Kraut et al. (1998) used longitudinal data to examine the influence of the Internet on a group of 169 people in 73 households during their first 1 to 2 years online. Variables of interest included social involvement and psychological well-being. Since many of the

common uses of the Internet are similar to uses of television, i.e., for entertainment and information, the effects of Internet use are likely to be similar to those of television watching. Researchers recruited participant families by offering free computers and internet access in exchange for granting permission for the researchers to automatically track usage and services, as well as agreeing to answer questionnaires and participate in one at-home interview. Training was provided for participants when necessary to help them fully utilize Internet services such as web browsers and E-mail. This study was conducted in two waves, the first encompassing 104 weeks and the second tracking 52 weeks of use. An analysis was conducted with each wave to determine how changes in Internet usage effected social involvement and psychological well-being. Path analysis was used to test the relationships between the variables at three time periods, occurring at pretest (Time 1), midpoint (Time 2), and posttest (Time 3) periods. It was found that increased use of the Internet noted at Time 2 corresponded to lower social involvement and psychological well-being at Time 3. Researchers controlled for the possibility that well-being or social involvement might lead to Internet usage by examining the link between social involvement and well being at Time 1 and Internet use at Time 2 in order to control for this relationship when analyzing the potential link between Internet use at Time 2 and social involvement and well-being scores at Time 3. This allowed researchers to make some fairly strong inferences of causality. Findings included that use of the Internet corresponds with small, but statistically significant decreases in social involvement, increases in loneliness, and increases in depression (Kraut et al., 1998).

One caveat of this research is that participants were families, most of who had teenage children and as such have very different social interactions and needs than older

adults. No older adults were included in the sample, and researchers suggest that if they were included, it is very possible that they might have found increased opportunities for social involvement through use of the Internet as well. Families like the ones included in this study have more built-in sociability opportunities, such as socializing with other family members and socializing at work or school, while older adults often have much smaller networks of people with whom they have daily contact (Kraut et al., 1998).

Whether television watching would also diminish social involvement and increase loneliness and depression like the Internet was found to do in Kraut et al.'s study is debatable. Internet usage is an inherently solitary pursuit and it seems highly unlikely that the average person uses the Internet with others regularly. Television viewing on the other hand can be a group activity and certain shows take on an event quality that make group viewing even more likely.

Internet usage and television viewing differ in the amount of interaction required by the individual as well. Internet usage tends to involve switching pages and sites, reading and composing information, possibly playing games, and searching for information or products. Watching television is a more passive pursuit and even the most interactive viewing makes few, if any, overt demands on the viewer. Certain inevitable age-related declines cause loss of muscle capacity and limitations to mobility so that even in the absence of disease or impairment, the healthy older adult will find some activities more difficult to participate in than he or she did when younger (Whitbourne, 2007). Though this in no way precludes the older person from participating in modified versions of physical activities that might be more appropriate, there might also be room in the older individual's life for more passive leisure activities. In this way, television might

provide a supplement for some of the time that used to be taken up by participating in more active pursuits. Some individuals might choose television programs in interest areas that were previously fulfilled by more active pursuits, such as watching programs about skiing or documentaries about mountain climbing when such activities are unavailable due to physical limitations, for example. If used as an adaptive way of coping with the loss of certain abilities that formerly provided pleasure, therefore, it is hypothesized that television that would not be likely to co-occur with increased loneliness, depression, and decreased social involvement as the Internet did in younger adults in the Kraut et al. study (1998).

In a follow-up study in 2002, Kraut et al. conducted a longitudinal analysis of Internet use among new purchasers of computers and televisions, but were unable to replicate their earlier findings. This time they found no significant correlations between use of the Internet and social involvement, loneliness, and depression. Another study of self-reported time spent on the Internet and scores on measures of depression and loneliness was in agreement with Kraut et al.'s follow up study, also showing no significant relationships between Internet use and mood variables (Wasterlund, Norlander, & Archer, 2001). So it seems that even among Internet studies and non-elderly adults, there is little consensus as to mood correlates. Much like television viewing, this is another area where research has yet to catch up with technology.

In a much more theoretically grounded article, Caplan (2003) suggests an explanation for why some people might become overly dependent on Internet use, coming to preference this form of interaction to face-to-face interactions. Grounding his study in cognitive theory, Caplan hypothesized that: (a) individuals who suffer from

psychological problems such as depression and/or loneliness hold more negative perceptions of their social competence than other people who do not have these problems; (b) these individuals come to prefer online interaction over face-to-face contact because they perceive it as less threatening and perceive themselves as more successful actors within these interactions; (c) the rewarding nature of these interactions reinforces the behavior and leads to the individual increasing it , often to problematic levels, often evidencing what might be referred to as excessive and compulsive Internet usage levels. These hypotheses were explored using a scale designed by Caplan that measured problematic Internet use (PIU). The scale was a self-report measure termed the Generalized Problematic Internet Use Scale (GPIUS). This scale contains subscales to assess the use of the Internet for various reasons that are hypothesized to demonstrate potential problematic use. Only two of these subscales were used by Caplan (2003) – Perceived Social Benefits, a subscale measuring the perception by the individual that communication via the Internet is preferable to face-to-face interaction, and Perceived Social Control, a measure of the perception by the individual that he or she has greater control over social interactions that take place online versus face-to-face. These two subscales together were used to form the construct of 'preference for online interaction.' Well-being was assessed through the lack of depression and loneliness as indicated by low scores on the Beck Depression Inventory-II (as cited in Caplan, 2003) and the UCLA Loneliness scale (as cited in Caplan, 2003), respectively.

Most hypotheses were supported, with depression and loneliness being found to be significant predictors of preference for online social interactions, preference for online social interaction being found to be a significant predictor of scores on symptoms of PIU,

and preference for online interaction being found to mediate the effects of loneliness on negative outcomes associated with Internet use (Caplan, 2003). The only hypothesis that did not find support involved depression being a significant indirect or direct predictor of negative outcomes, which was not substantiated. One unexpected finding of this study was that amount of Internet usage itself did not have bearing on negative mood states of loneliness and depression. Only when users reported use of the Internet for communication-specific purposes did increased Internet use correlate with higher loneliness and depression. This was hypothesized by the researcher to be a function of the many uses of the Internet, many of which seem to have the potential to ameliorate a negative mood state (Caplan, 2003). Since television viewing has more in common with non-communication specific uses of the Internet, there is reason to believe from these results that it will be found that television viewing will not correlate with higher loneliness and depression. When television viewing is used as a substitute for social interactions and is used excessively, however, it is predicted that it will correspond with higher loneliness and depression like excessive use of the Internet did in Caplan's study.

Magazines. There is only limited literature examining magazine reading and older adults. One such study looked at television viewing and magazine reading to determine if older and younger men and women were alike in their use of media and in their media preferences (Mundorf & Brownell, 1990). The participants were much more similar in their television viewing habits as well as in their choices of favorite programs and characters than they were in their choices of favorite magazines. The older and younger adults and the men and women showed much more significant differences by group in terms of magazine preferences. The greatest overlap was between the older

males and other groups (older and younger males reported reading *Sports Illustrated*, and older males and females reported reading *National Geographic* and *Reader's Digest*), and the only magazine all groups reported reading was *T.V. Guide* (Mundorf & Brownell, 1990). The magazines many of the reader groups cited reading most often were demographically salient, such as older women reading *Better Homes and Gardens* and *McCall's* and the younger women reading *Vogue* and *Cosmopolitan.* The hypothesized reason for the varying range of magazines preferred compared to television programs preferred was attributed to the fact that many television programs cited as favorites by both groups feature both older adult and younger adult characters, and characters of both sexes, while magazines tend to be more specialized to a specific audience.

This should have implications for viewing, since there is now a much greater variety of programming available to viewers and programs tend to be more focused on attracting viewers of specific demographic characteristics. Mundorf and Brownell's study was conducted in 1990 in a time long before the myriads of cable channels viewers receive today were available. If the study were replicated today, it would be likely that people would be more similar in viewing preferences based on group demographics, more like they were in the magazine reading preferences described above, since so many demographically specific shows are available to try to lure them. Many of the top shows in 1990 were more diverse and seemed marketed to appeal to men and women of all ages. Niche marketing of programs has increased as the number of networks and cable channels has grown exponentially necessitating new marketing strategies to lure viewers.

Finally, a recent study found that people who describe themselves as happy also spend more time reading newspapers and participate in social and/or religious activities,

but spend less time watching television (Robinson & Martin, 2008). The participants who reported watching the most television were the least happy. Though this finding was the result of a large-scale study, results should be interpreted with caution for several reasons. First, the sample demographics are never provided, leaving it difficult to determine who these participants are (and are not), so it is difficult to make any generalizations about who else might be expected to respond similarly. More importantly, however, the construct *happiness* was measured by one simple question asking respondents to rate themselves in terms of happiness as "very," "somewhat," or "not" happy. Only 10% of the sample endorsed being "not happy," leaving it questionable whether this method of assessing level of happiness is actually a valid measure. An empirically validated happiness instrument would have provided far more interesting and useful information.

Nonetheless, those in Robinson and Martin's study (2008) who did endorse being not happy were also the same respondents who watch the most television, so it seems this information is saying something about that group. What precisely this means, however, is unclear. One possible interpretation is that those who are least happy overall watch television, or alternatively, those who watch the most television become the least happy. Causality is impossible to infer, and thus whether television is the cause or effect is unsure. Television watching and unhappiness do seem to be related, however, even if the direction of this effect remains ambiguous.

Television Viewing Research on Younger Populations

Much more research has been done examining the effects of television viewing on children and adolescents than has been conducted on adults, even when all age groups of

adulthood are considered. For that reason, it is important to look at what has been learned about children and adolescents in an attempt to gain insight into some of the potential similarities and differences that one might expect to find with regards to older adults and viewing. A frequently cited reason for studying children and adolescent viewing is to determine if there are detrimental effects related to types or amounts of viewing and certain developmental issues. Studies have attempted to determine the effects of specific amounts of television viewing on children's activity levels and rates of obesity, for example (eg., Eisenmann, Bartee, Smith, Welk, & Fu, 2008; Pardee, Norman, Lustig, Preud'homme, & Schwimmer, 2007), the potential emotional effects of being subjected to certain media images such as violence and sexuality at particular developmental stages (eg., Comer et al., 2008; Scharrer, 2007), and the effect of television advertising on children's developing minds (eg., Jennings, 2007).

These issues are somewhat different in older adults, but there are some similarities as well, since these issues themselves are still quite salient and important for adults of all ages. For example, regular physical exercise is highly recommended for this population, but no study to date has looked at the interplay of television viewing amounts and amount of physical activity in which older adults engage. Also, media violence has been found to cause anxiety and worried feelings in children (Comer et al., 2008), but again, no studies to date have examined whether older adults are similarly affected. Given that older adults watch the greatest amount of daily television of any age group (U.S. Bureau of Labor Statistics, 2007) and the amount of people in this population who report feeling anxiety and worry (Bryant, Jackson, & Ames, 2007), it seems very

important to determine how their choices of programs might be impacting their anxious feelings.

Krosnick, Anand, and Hartle examined the psychosocial predictors of heavy television viewing in adolescents and found support for hypotheses derived from three different theoretical orientations explaining why children watch excessive amounts of television (2003). In the first, *needs satisfaction*, television viewing frequency was found to be correlated with quality of peer relationships, intelligence, book reading, and hostility of parental punishments. In the second, *parental influence*, amount of viewing was found to be associated with parental values regarding viewing and family rules limiting viewing. The third, *resource availability*, found support as well, as amount of viewing correlated with amount of free time, with adolescents with after-school jobs watching far less. Family income, however, is a domain of resource availability that was not correlated with television watching amounts (Krosnick, Anand, & Hartl, 2003).

These seem like motivations that would still remain salient for an older adult population. Perhaps most obviously, *needs satisfaction* motivations are likely to be important reasons for older adult viewing despite the fact that some of their needs might take a different shape than those of adolescents. Socialization, a very fundamental human need, remains important throughout the lifecycle. Because of this, needs satisfaction motivations are likely to remain relevant to television viewing motivations well beyond adolescence. *Resource availability* is also likely to be important to older adults and viewing, since having less time for viewing because of obligations outside the home such as employment or volunteer work would leave less available time for viewing, just like it did for the adolescents. For obvious reasons, *parental influence* is less likely to be

motivating for older adults than it was for adolescents. However, since this category spoke to values, it is likely that the values the older adults picked up from their families of origin as well as from other more recent social influences would have bearing on their television watching.

Comer et al. (2008) found that children with heavier television viewing were more likely to have elevated perceptions of personal (but not societal) vulnerability to world threats (i.e., crime, terrorism, and environmental threats) and this finding was even more pronounced in children with high anxiety. Use of the Internet did not correlate to elevated perceptions of threat, however, despite the potential similarity of content between the Internet and television programs. In fact, television usage and anxiety both predicted children's personal threat perceptions, but the child's anxiety level mediated the effect of television usage on perception of personal vulnerability to world threats. The strength of the children's anxiety in predicting their personal threat perceptions was also found to be greater for children who watch greater amounts of television. This lends support to the idea of an interactive relationship between television watching and anxiety in children when accounting for threat perceptions. Comer et al.'s study did not take into account type of television program viewed, but rather simply tallied total amount of viewing, a fact that limits some of the specifics of what can be extrapolated from these findings. Without knowing what the children were watching, it is impossible to determine if television viewing itself is sufficient to create this interactive relationship or if it is the result of the viewing of certain types of shows. Perhaps the children with higher anxiety would have higher perceived threat from the viewing of television in general, while the lower anxiety children might need to watch certain types of shows before their viewing

would lead to increased feelings of threat. Lack of this information leads to some serious limitations in the inferences that can be drawn.

One interesting exploratory study looked at family viewing habits and the social construction of mental illness to determine if television viewing by children, their parents, and children and parents together seemed to have some influence on the children receiving a mental health diagnosis (Shanahan & Morgan, 1989). Researchers were looking for the potential that television viewing habits might exert on the development of mental illness rather than looking for causality. They found that while children's viewing habits did not correspond to any particular diagnoses or lack thereof, their parents' viewing habits did. In fact, the parents with the highest amounts of self-reported personal television viewing were most likely to have a child with a diagnosis of Attention Deficit Disorder (ADD) (Shanahan & Morgan, 1989).

Television watching has also been implicated in being a factor in inactivity in children. Once study examined the incidences of hypertension, obesity, and television watching in obese children aged four to 17. Amount of time spent watching television was positively correlated with the severity of obesity in the children. Severity of obesity and time spent watching television were found to be significant independent predictors of the presence of hypertension. Children who watch two to four hours of television daily had a 2.5 times greater chance of having hypertension than children who watch less than two hours of television daily. Children who watch more than four hours of television daily had a 3.3 times greater chance of having hypertension in comparison with the children who watch less than two hours of daily television. These results suggest that, at least in children, television watching seems to take the place of more active leisure

pursuits and contributes to obesity. It is unclear if this same effect exists for older adults (Pardee, Norman, Lustig, Preud'homme, & Schwimmer, 2007).

Mood and Quality of Life Issues

Depression. Depression in older adults is a surprisingly contentious area. Questions abound regarding all aspects of the issue including prevalence, presentation, diagnostics, and treatment. Many health professionals differ in their personal views on later life depression as well, with some fostering the erroneous belief that depression is an inevitable part of the aging process, a fallacy that can have serious implications for the older adult patient. This belief has been found in primary care physicians and mental health clinicians alike, a finding that suggests it is pervasive in society (Ivey, Wieling, & Harris, 2000; Zylstra & Steitz, 2000). Even isolating the prevalence rate of depression in the elderly population is exceedingly difficult, and estimates range from as low as 1% to as much as 16% for general, community dwelling populations (Roberts, Kaplan, Shema, & Strawbridge, 1997; Girling, Huppert, McBrayne, Paykel, Gill, & Mathewson, 1995), with studies of specific populations such as nursing home occupants yielding figures as high as 20.3% (Jones, Marcantonio, & Rabinowitz, 2003). There are many reasons to believe that depression might be underdiagnosed in the elderly, including research findings that show that even when elderly people can clearly understand what signs of depression look like in others, they often still fail to notice them in themselves, a finding that would explain a failure of depressed elders to even seek help (Davies, Sieber, & Hunt, 1994), and studies that reveal under-reporting by primary care physicians, possibly due to misapprehensions involving viewing depression as a natural part of the aging process (Zylstra & Steitz, 2000). Primary care physicians are a crucial part of the

treatment of older adults' mental health since the current generation of elderly is much less willing than other age groups to utilize mental health services. Unless primary care physicians are both accurately identifying and actively encouraging elderly patients to seek psychological help for depressive symptoms, they might never receive the appropriate help to alleviate this far from inevitable condition (Davies et al., 1994).

Some researchers theorize that criteria for assessing depression should be different for seniors than for other populations, and perhaps the relatively modest numbers of seniors diagnosed with major depressive disorder is not accurate due to inappropriate assessment criteria (Girling et al., 1994; Chodosh et al., 2004). The criteria set by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, American Psychiatric Association, 2000) may not sufficiently describe symptoms of depression as they might present themselves in the elderly patient, and many elderly patients have physical problems to which depressive symptoms might be attributed.

Major depression, according to the DSM-IV-TR is diagnosed when an individual exhibits one or both core symptoms of depressed mood and lack of interest, along with four or more of the following symptoms for at least 2 weeks: feelings of worthlessness or inappropriate guilt, diminished ability to concentrate or make decisions, fatigue, psychomotor agitation or retardation, hypersomnia or insomnia, significant decrease or increase in weight or appetite, and recurrent thoughts of death or suicidal ideation (DSM-IV-TR, American Psychiatric Association, 2000). Many of these diagnostic criteria for depression, such as weight and appetite changes, sleep pattern changes, and fatigue, are very common occurrences in even healthy older adults as well as changes that frequently co-occur with illness or medication side effects. Knowing this, diagnosticians must make

the choice to either discount this information altogether and risk underassessing depression by ignoring important diagnostic indicators, or risk over-assessing the condition by including potentially diagnostically unrelated information (Gatz & Fiske, 2003). Additional confounding factors include the negative effect depression has on illness, creating a cycle – medical comorbidity, functional impairment, and comorbid dementing disorders all adversely effect the outcome of depression, and depression adversely effects the course of comorbid problems (Blazer, 2003).

Symptoms of depression might present differently in older adults than in younger adults making it harder to recognize for both clinicians and the older adult him or herself. Active dysphoria is less likely to be dominate in the presentation of late life depression, and the diagnosis will tend to rest on more subtle symptoms that are difficult to assess such as reduced motivation or fatigue (Gatz & Fiske, 2003).

Roberts, Kaplan, Shema, and Strawbridge (1997) addressed the question of whether growing old necessarily increases the risk of depression. In their study, participants 50 years of age and older were studied in 1994 and then re-assessed in 1995 to determine if they were more likely to be depressed in 1995. The researchers found no correlation between age and likelihood of being depressed once other potentially confounding variables were controlled for and the rate of depression and depressive symptoms they found in 1994 was not significantly different from the rate they found in 1995. Effects were found for chronic health problems and functional impairment and predictive factors for depression included being female, impairment in one or more ADL, cognitive problems, neighborhood problems, and social isolation. When these predictive factors were noted in non-depressed individuals in 1994, the individuals were much more

likely to be depressed in 1995. Further, those found to be depressed in 1994 were nearly fifteen times more likely to be depressed in 1995. So, though old age does not seem to equate with increased depression, many problems commonly found in the elderly do seem to equate with depression, and depression seems to be a chronic problem (Roberts et al.).

There is compelling evidence that fairly simple interventions based on fostering sociability and a sense of belongingness, and helping seniors maintain ties with others in their community can be extremely effective, both in managing full-blown depression and in lessening the number and severity of depressive symptoms experienced by seniors (Cummings, Neff, & Husaini, 2003; McWha, Pachana, & Alpass, 2003).

Despite the debate regarding whether depression is a natural part of the aging process, what is not debatable, however, is the fact that depression in older adults has a serious and deleterious effect on quality of life. It has been linked with increased morbidity, mortality, functional decline, and institutionalization. The World Health Organization (WHO) has concluded that depression was the fourth leading cause of disease burden in 1990, and is likely to be the single most prevalent cause of disability worldwide by 2020 (Murray & Lopez, 1996).

One reason depression in the elderly is such an important issue is that this population has the highest suicide rates of any age group. According to the American Association of Suicidology (AAS), the elderly account for 12.3% of the population, but almost 17.5% of all suicides, with 15.6 suicides per 100,000 persons. White elderly men are at the highest risk, with a suicide rate of approximately 35 per 100,000 and amongst the oldest old white men this rate increases to 51.1 per 100,000, a full 4.6 times the rate

for all ages combined. Older adults actually attempt suicide much less often than younger age brackets, but they complete suicide much more frequently. The attempt to completion rate for younger adults is 1 suicide for every 100-200 attempts, while in adults over age 65, the rate climbs to an astounding 1 suicide per 4 attempts. Further, the AAS states that depression, undiagnosed and untreated, is one of the leading causes of older adult suicide (2002). Most of the older adults who committed suicide successfully were seen in primary care shortly before death (Gatz & Fiske, 2003). Thus it is crucially important that older adults receive accurate, timely assessment and treatment for depression. With completion rates so high for attempted suicide, there simply may not be a second chance to intervene if a suicide attempt is the first indication that an older adult is depressed and needs help.

Untreated depression seems to have a fairly poor prognosis in older adults. One five-year outcome study found that this is particularly true if the depression is severe, or if it is complicated by disease or disability that results in a decline in functional abilities. In women, a change in living conditions that increases independence can actually improve the prognosis, while in men low socioeconomic status seems to lead to worsened prognosis. In both sexes, social losses do not seem to affect the prognosis significantly (Kivela, Kongas-Saviaro, Kesti, Pahkala, & Laippala, 1994).

There is some evidence that correlates of depression are different for younger versus older adults. One theory along these lines posits that when a life event is normative for a population, such as death of a spouse in an older adult, depressive symptoms are less likely to result (Nolen-Hoeksema & Ahrens, 2002). When an event is non-normative, however, such as the death of a spouse in a middle-aged or younger

person, depression is far more likely to result (Nolen-Hoeksema & Ahrens). Confirming this finding, one study of persons aged 77 and older found that bereavement (as evidenced by an affirmative response to the question: Have you lost anyone close to you in the last year?) was not correlated with depressive symptoms in this population, despite over 30% of respondents endorsing this item (Girling et al., 1995).

Gender differences have been found in depression at all ages, but in older adults, this gender gap seems to diminish, with older men and women evidencing depression at roughly similar rates (Barefoot, Mortensen, Helms, Avlund, & Schroll, 2001; Veijola et al., 1998). Still, there do seem to be some differences between depressed older women and men. Older women are likely to have caregiving responsibilities that might contribute to their depression, for example, as well as belief sets that cause them to consider the needs of others before their own, leading to less likelihood that they will seek help for depression (Gatz & Fiske, 2003).

In summary, though issues of depression rates and prevalence in older adults remain largely underdetermined, it is clear that many older adults display depressive symptoms. Depression is linked to diminished quality of life (Kivela et al., 1994), poorer outcomes from illness (Murray & Lopez, 1996), and increased likelihood of suicide (AAS, 2000). Older adults have the highest suicide rates of any population, yet do not have the highest rates of depression diagnoses. This finding alone suggests that a portion of the depressed older adult community is not being identified and certainly is not receiving treatment. It is important to isolate both the correlates of depression in the elderly, as well as protective factors that might help older adults avoid becoming depressed. Older adults have more leisure time overall than any other adult age group. It

makes sense that the way that leisure time is spent would have some bearing on their mood and might either contribute to, or help protect against, depression. By looking more closely at how older adults are spending their free time, a better idea of the impact of those activities will emerge. Television watching is an extremely common way older adults pass time. Determining how that relates to depression will serve to illuminate how one of the most ubiquitous pastimes influences this population's likelihood of depressive symptoms.

Loneliness. Loneliness is a more complex construct than it might initially appear to be. Research is uncovering more and more evidence that there is not a strong relationship between amount of social support, number of supports, time spent with supports, or other concrete support-related variables and an individual's perception of loneliness or fulfillment (Cummings et al., 2003; Due, Holstein, Lund, Modvig, & Avlund, 1999; Stokes & Levin, 1986; Weiss, 1973). Further, a relationship exists between objective social isolation and perceived loneliness, but it seems to be relatively modest (Newsom & Schultz, 1996). This suggests something about loneliness that is qualitatively different from what is captured through quantitative analysis of social contact. Loneliness is more than simply a measure of how much contact one has with others and therefore there is no formula that can determine how much contact would suffice to prevent this unpleasant emotion. Some, it seems, truly can be lonely in a crowd, while others need very little companionship to feel content.

Differences seem to exist between men and women in regards to loneliness as well. For men, it has been found that social network characteristics, particularly density are somewhat good predictors of loneliness, while for women, these measures are less

reliable. In one study, males with denser, more cohesive, interconnected networks of friends were found to be uniformly less lonely than men without this type of social network (Stokes & Levin, 1986). Network density had no bearing on loneliness for women, however. Researchers suggest that this might be a function of males defining loneliness based on group characteristics, while women might use criteria regarding quality of dyadic relationships. For neither group, however, did number of confidants predict loneliness, again lending evidence to the idea that loneliness is more than a simple quantitative tally (Stokes & Levin, 1986).

Weiss (1973) divided loneliness into two types: *social loneliness* and *emotional loneliness*. Social loneliness concerns a perceived lack of a social network of individuals with whom common interests are shared, while emotional loneliness concerns a perceived lack of close, intimate attachment to others. Because of these different typologies, individuals would be expected to behave differently based on the typology to which their loneliness corresponds. Weiss showed that loneliness was qualitatively different contingent on typology as well, with social loneliness correlating to boredom and depression, and emotional loneliness with anxiety and isolation. Behaviors were also found to differ based on typology as well, with social loneliness motivating individuals to seek out groups with which to belong, and emotional loneliness compelling individuals to seek out intimate, partner relationships.

Individual differences seem to matter for loneliness perception as well. It has been found that loneliness is correlated with neuroticism and extraversion. The relationship between extraversion and loneliness, however, is mediated by social network size and density, while the relationship between neuroticism and loneliness is not mediated by

social network variables (Stokes, 1985). This seems to suggest that for extraverted people, more contacts would be important to the perception of getting needs for socialization met, while for a person high in the trait of neuroticism, it is something more internal that drives their loneliness, so no amount of social contacts is sufficient to alter the perception of being lonely.

For older adults, particular risks of loneliness include higher rates of nursing home admissions. One study found that even when other potentially salient variables including age, gender, education, income, mental status, physical health, morale, and social contact were controlled for, high loneliness alone was predictive of significantly higher rates of nursing home admissions over the following four-year period. The researchers hypothesize that loneliness leads to nursing home admissions by being a precipitant of mental and physical declines in older adults, or possibly because it can function as a way of gaining more social contact that may become acceptable to an older person once all other attempts to alleviate loneliness have been exhausted (Russell, Cutrona, de la Mora, & Wallace, 1997).

Loneliness in older adults has also been linked to poor quality of life, cognitive impairment, increased use of health care services, and impaired survival rates from illnesses (Routsalo & Pitkala, 2004). It is obvious that loneliness causes distress and unhappiness, and that it diminishes quality of life in significant ways.

The number of social contacts tends to decrease as people grow older. Fortunately it has been found that the *quality* of the social network, and not the *quantity*, is the factor most correlated with life satisfaction. Additionally, older individuals tend to be more satisfied with the social contacts they do have, another contributing factor to the tendency

to report higher satisfaction with social support despite also reporting smaller social networks overall (Due, Holstein, Lund, Modvig, & Avlund, 1999). It has also been determined that an individual's level of confidence in his or her social network is the most important factor in determining whether social support correlates with mental health, a finding that still holds even when the individual has serious physical disability (Cummings et al., 2003).

Many researchers have also found that lack of an adequate support network increases the chances that an elderly person will be depressed, and these findings have been replicated in many disparate populations (Cummings et al., 2003; Gonzalez et al., 2001; McWha et al, 2003; Mui 1996; Roberts et al., 1997). Similarly, community-based approaches that increased social interaction and feelings of belongingness were consistently found to alleviate depression and depressive symptoms (Cummings et al., 2003; McWha et al., 2003; Rokke et al., 2000).

There is some evidence that audiences engage with familiar characters from favorite shows in a way that fulfills socialization needs. One study looked at college students' feelings when the television program, *Friends*, a 30-minute situation comedy (sitcom) featuring a group of friends sharing their lives in Los Angeles, ended after a ten-year run. Researchers theorized that these students, for whom *Friends* had been on the air since they were in elementary school, would have developed a *parasocial relationship* with the characters. The concept of parasocial relationships, first proposed by Horton and Wohl (1956), refers to a relationship between performer and viewer that parallels a real relationship in terms of some of the experiences it provides to the viewer. If *Friends* was

creating this parasocial dynamic for its young adult viewers, its ending would have emotional repercussions for them (Eyal & Cohen, 2006).

It has been found that viewers' relationships with television characters do not seem to replace actual relationships, so they do not serve as substitutes for human interaction, but rather they seem to complement existing relationships, providing additional social enjoyment and pleasure. Results were mixed, and the conclusion drawn by the researchers was that viewers who were already lonely bonded more closely with their favorite characters leading to greater distress when the show ended (i.e., upon relationship dissolution) (Eyal & Cohen, 2006).

Much like college students were found to enjoy television programs featuring people their age who were like them in some fundamental ways, it would appear older adults enjoy programs about other older adults. In the past, portrayals of older adults on television were frequently pejorative, with older characters occupying stereotypical roles and tending to be portrayed as more comical, stubborn, eccentric, and foolish than other characters (Davis & Davis, 1986). During the mid-eighties, however, programming began to feature some positive portrayals of strong, attractive, and capable older adults – role models for an aging America (Bell, 1992). It is likely that these sorts of characters might elicit the same parasocial connections with an older audience that shows like *Friends* have for the younger audiences. If so, it demonstrates another way that television might help alleviate some of the detrimental effects of loneliness that sometimes co-occur with aging.

In summary, loneliness is related to social support in some important ways, but is also much more subjective. An individual can feel lonely despite having a large network

of friends, family, and acquaintances, while another individual might feel not lonely and have far less tangible support. Some of the reason for this might be attributed to individual differences, such as personality traits of high extraversion that might compel an individual to seek a larger network in order to feel satisfied, or high neuroticism that might cause a person to feel lonely regardless of external variables, feeling a loneliness that comes from within (Stokes, 1985).

Loneliness has high costs to the individual and to society. The lonely older adult is at greater risk of nursing home admittance, will likely have poorer recovery from illness, poorer quality of life, greater cognitive impairment, and will be a greater user of health care services (Routsalo & Pitkala, 2004). Loneliness is hypothesized to be a precipitant to mental and physical declines in aging, and literally might signal that the individual is giving up on life, feeling there is little left to live for (Russell, Cutrona, de la Mora, & Wallace, 1997). Loneliness is also cited as a risk factor for suicide, a major epidemic in the older adult population, so it is imperative to take loneliness in this population very seriously (American Association of Suicidology, 2002; Gatz & Fiske, 2003).

Loneliness is a perception of the individual and as such is subject to change through internal mechanisms. The older adult can thus potentially develop coping to ameliorate loneliness even in the absence of an actual increase in the number and frequency of social contacts. One of these mechanisms might be watching television programs that feed their socialization needs, such as talk shows or game shows that offer lively interaction with a studio audience or through parasocial relationships with familiar and favorite characters.

Loneliness surely cannot be cured by television, but from this discussion it should be clear that no single factor was found that could cure loneliness. This complicated construct is clearly an interplay of variables, not the least of which is the individual him or herself, and certain tools do seem to function to alleviate loneliness. One of these tools might just be the humble and ubiquitous television set.

Anxiety. Anxiety remains an underdeveloped area of research with respect to older adults. Anxiety is characterized by worry, restlessness, muscle tension, and sleep disturbance, and as such is a common experience of almost all individuals. When these symptoms become chronic and occur en masse, however, they can become debilitating, causing significant distress and impairment in functioning. This is the difference between normal experiences of worry and stress and an anxiety disorder (Scogin, 2007). In a comprehensive review of findings from studies of anxiety conducted with adults aged 60 years and older between 1980 and 2007, it was discovered that anxiety disorders, which include Generalized Anxiety Disorder, Phobias, Panic Disorder, and Obsessive-Compulsive Disorder, are present in between 1.2% to 15% of community-dwelling older adults and subclinical presentations of anxiety symptoms are present in between 15% to 52.3% of community samples (Bryant, Jackson, & Ames, 2007).

In Bryant et al.'s literature review it was found that the most common anxiety diagnosis in the older adult population is Generalized Anxiety Disorder (2007). Researchers concluded that the wide discrepancy in prevalence statistics is due to two main factors: first, the way anxiety is being defined or measured, and second, the inclusion or exclusion of subsyndromal levels of anxiety in the analyses. As to the first concern, a variety of different instruments have been utilized in studies of older adults

and anxiety. Some of these instruments attempt to measure anxiety dimensionally, while others employ a categorical approach to assessing for anxiety, and this methodological difference creates the potential for vastly different results. For example, one frequently utilized means of assessing anxiety is the Geriatric Mental Schedule, an instrument that employs a hierarchical system that does not allow an anxiety diagnosis when another, "higher level" disorder such as depression or dementia is present. Not surprisingly, this instrument has yielded some of the lowest prevalence statistics noted in this survey. As to the second concern, subsyndromal cases are increasingly being seen as important to include in studies, as it is becoming increasingly apparent that many older adults suffer greatly from anxiety symptoms that fall below the threshold for diagnosis. It is possible that the failure to classify their suffering as a disorder is a failure of the instruments and the classification system to understand what anxiety looks like in older adults. With so-called subsyndromal anxiety included, prevalence statistics for late-life anxiety increase exponentially (Bryant et al.). When anxiety symptoms are subthreshold, it is easy to dismiss them as an inevitable part of the aging process, in much the same way as depressive symptoms are often dismissed (Davies, Sieber, & Hunt, 1994; Gatz & Fiske, 2003; Zylstra & Steitz, 2000). However, also similarly to the lessons learned from depression research, symptoms of anxiety can be treated. Anxiety symptoms in older adults are generally responsive to treatment by therapy and/or medication, lending evidence to the idea that they are not inevitable artifacts of the aging process, but rather symptoms of disorder that signal need for treatment (Scogin, 2007; Wetherell, Gatz, & Le Roux, 2003).

In a study of community-dwelling older adults, comparing those with GAD, subsyndromal anxiety, and normal older adults, it was found that all groups had some common areas of worry, particularly that of worries about others such as the health of loved ones and family matters (Wetherell, Gatz, & Le Roux, 2003). Researchers concluded that for older adults, worry about others seems to represent a normative aging effect. Worrying excessively about the self was only present in the participants meeting criteria for GAD, however, and seems to represent a much stronger indication of disorder. Worries about minor matters were common in this sample, and researchers pointed out that in other studies of younger populations, this has been found to be an indicator of GAD. In older adults, however, it was discovered that worry about minor matters did not differ between the three groups (those with GAD, those with subsyndromal anxiety, and those with normal levels of anxiety) significantly. Sleep disturbance did not differ between the GAD group and the subsyndromal group, and difficulty concentrating was noted equally often by all three groups, again suggesting areas of potential difference in presentation of clinical and subclinical anxiety in older versus younger adults. Participants in this study did not vary in terms of demographic composition, and has experienced events such as death of a spouse, caregiving, and health concerns at roughly equal rates, allowing notions that the more anxious participants were simply responding to life events and circumstances. Given these demographic similarities, researchers were able to draw conclusions suggesting that clinical levels of anxiety are not simply by-products of normal aging, but instead, represent pathology (Wetherell, Gatz, & Le Roux, 2003).

Of course, this study was limited by the circularity inherent in attempting to first use DSM criteria to diagnose and separate their three groups and then to try to find differences and similarities predicated on the groups being different – if the diagnostic criteria are faulty for use in older adults, it would be difficult to prove in a study that proceeds by first assuming the salience of those very diagnostic categories produced by such criteria. Nonetheless, some information can be gleaned despite the serious limitations inherent in such a study, particularly about the amount of similarities displayed by purported members of each group. Further, just because some categories of worry seem to be normative and sub-clinical, there still seems to be value in helping those with subsyndromal levels of anxiety deal with their distress, as well as identifying the more severely pathological forms of anxiety that warrant even more aggressive intervention.

Since a higher degree of worry than is found in younger adults seems to be ubiquitous in older adults, it is important to isolate factors that might exacerbate these feelings. One large scale study of community-dwelling adults found a strong relationship between greater viewing of televised news and stronger beliefs that the world is a dangerous place. It was also found people who reported watching more televised news believed their to be higher crime rates, a finding that still held even when the actual crime rate of the neighborhoods respondents lived in was controlled for (Romer, Jamieson, & Aday, 2003). It is not too difficult to imagine that, knowing older adults spend a large percentage of leisure time watching television, some of this material could be contributing to worry, at the very least in terms of adding specific (and in this case, largely erroneous) content.

In summary, anxiety is a common contributor to distress and diminished enjoyment of life in older adults. Many factors associated with the aging process seem to contribute to increased levels of anxiety, such as the death of a spouse, caregiving duties, and health concerns, but for most people, these events are able to be managed well enough to keep anxiety to a subsyndromal level. For others, however, anxiety reaches the level of pathology and causes serious impairment to the ability to function (Wetherell, Gatz, & Le Roux, 2003). For the latter group, psychological intervention is warranted to help them manage their symptoms and find relief. For the former group, however, certain more basic interventions might enhance their functioning and increase enjoyment of life without the need for formal intervention. These subsyndromally anxious elderly might be able to cope by using self-soothing coping strategies including watching television programs that they find pleasant when they are experiencing anxious feelings.

Life satisfaction. Life satisfaction in old age has been referred to as a "paradox" due to oft-replicated findings indicating no age-related declines in life satisfaction despite significant declines in objective measures of physical functioning. Many explanations have been posited for this common finding. One study, for example, found that life satisfaction scores actually show monotonic stability throughout the life course by examining participants 18 years of age and above and measuring life satisfaction at various points throughout a year (Schilling, 2006). Given the relative consistency of the resulting scores, researchers concluded that "high monotonic stability of life satisfaction is the fundamental developmental presentation of life satisfaction throughout the lifespan," (p. 261, Schilling, 2006).

Determining whether or not an older person is experiencing a good late life is a complicated question. Many different approaches have been taken to assessing this ambiguous concept. Biomedical models tend to emphasize physical and cognitive functioning to determine successful aging, but research has shown that when older adults are asked about their perceptions of their own aging, they report significantly higher rates of satisfaction than can be accounted for based on an analysis of biomedical markers (Strawbridge, Wallhagen, & Cohen, 2002). A multinational study of human values and well-being found that people aged 50 and older showed higher life satisfaction, contentment and stability than those in any other age group, refuting ideas that life satisfaction and other positive constructs show decline with increases in age (Butt & Beiser, 1987). Happiness has been found to be present at high levels in the oldest-old, and a study of centenarians found them to be at least equally happy to middle aged adults, implying that, similarly to life satisfaction, happiness, too, is a stable construct throughout the lifespan (Jopp & Rott, 2006). This finding is particularly surprising in light of research showing that positive affect, ostensibly an indicator, if not an outright component of happiness, declines with advancing age (Pinquart 2001; Smith et al., 1999). It seems, therefore, that though human bodies are clearly not built to last, psychological functioning appears to be made of sturdier stuff.

Further complicating attempts to assess life satisfaction is the fact that researchers have attempted to answer this and similar questions using a myriad of often overlapping terms and constructs. An analysis of these can do little more than reveal the depth and breadth of the confusion, but an attempt to create more rigorously defined terminology is complicated by the fact that studying how older adults are experiencing aging is a

multidisciplinary pursuit and every discipline seems to utilize its own set of operational definitions of salient terms and concepts, and each of these carries with it values inherent in the discipline that coined it. A literature review that attempted to provide some clarity on this topic was forced to conclude that most often terms are left undefined or ambiguous, many different scales have been applied to measure such constructs as well-being, and that many of these do not seem sufficiently complex to capture the nuances of the concept leading to much literature on the topic being specious at best, and that the perspective of the older people being studied is frequently not even elicited (Stanley & Cheek, 2003). To address these very important concerns, the concept of "life satisfaction" and an empirically supported measure of this construct was chosen for the present study. This will allow individuals to render their own subjective judgment about their experience of life satisfaction while still utilizing a standardized scale shown to be valid and reliable for measuring this construct, the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985).

In an attempt to operationally define life satisfaction as it is utilized in psychological literature, it has been proposed that life satisfaction is the cognitive evaluation component of subjective well-being, in addition to components such as positive and negative affect (Berg, Hassing, McClearn, & Johansson, 2006). As such, it would be expected that an older adult who is experiencing subjective well-being would report a higher level of life satisfaction than one with lower subjective well-being. The terms are considered by many researchers to be linked and life satisfaction is the component of successful aging evaluation that asks the individual to take stock of his or her own life. It is an important viewpoint to consider when attempting to determine

whether or not someone is aging successfully, as all other measures are ultimately unimportant if the individual does not believe him or herself to be aging successfully.

Life satisfaction is an important construct for more than simply its implications for happiness and enjoyment of later life, however. Research has linked higher life satisfaction with greater longevity in older adults. A large-scale twin study examining 80-year old and older same-sex twins found that participants who reported the highest levels of satisfaction with present life had an almost twofold lessened rate of mortality over the following ten year period when compared to those scoring in the lowest quartile of satisfaction with present life, though satisfaction with past life had no bearing whatsoever on mortality (Lyyra, Tormakangas, Read, Rantanen, & Berg, 2006). Low subjective well-being has been found to be a reliable predictor of all-cause mortality in adults from middle age to elderly, even when confounding factors such as health are taken into account (Iwasa, Kawaai, Gondo, Inagaki, & Suzuki, 2006). Further, older adults with positive self-perceptions about aging itself have been found to live 7.5 years longer than those with less positive self-perceptions about aging (Levy, Slade, Kunkel, & Kasl, 2002). Higher life satisfaction and higher happiness, considered separately, have both been found to be negatively correlated with suicide rate, a finding that was weakest in the youngest adult age bracket of 15-44-year olds, stronger amongst adults aged 45-64, and strongest in adults aged 65 and over (Bray & Gunnell, 2006).

In a study conducted by Rabbitt, Lunn, Ibrahim, Cobain, and McInnes (2008) it was found that greater life satisfaction might contribute to better cognitive ability in later life. This finding is difficult to compare to other studies of life satisfaction, however, due to the fact that no standard measure of the 'life satisfaction' construct was utilized.

Instead, participants were given a depression inventory and low scores indicating lower depression were used by researchers as an indicator of higher life satisfaction (Rabbitt et al., 2008). For reasons previously explained, the lack of consistent operational definitions and consistent use of valid instruments to measure such constructs are a common problem in life satisfaction research. This is yet another study where, despite a very promising premise and significant results, the findings must be interpreted with caution, particularly when attempting to compare findings with those of other researchers examining the same topic. Nonetheless, this represents one more area where life satisfaction might be found to benefit later life in important ways. It is hoped that future research will be done to determine if there is a positive effect on cognitive abilities when life satisfaction is high utilizing more empirically validated life satisfaction scales.

Some predictors of life satisfaction in later life found by previous research include: living with one's spouse, health, marital status, and religious commitment. Interestingly, this same study included one open-ended question querying what the individual considered the biggest threat to happiness. The most frequent response given was "health," given five times more frequently than the next most popular answer, "death," (Kehn, 1995). It seems apparent that health status is an important part of what constitutes life satisfaction (and its component piece, happiness), but it is less clear if the actuality of illness and health declines is as predictive of diminished life satisfaction as is the fear of such problems.

In summary, life satisfaction is a difficult concept to define. Many other similar constructs are often used interchangeably and the line between each of them seems unclear, particularly when working from multidisciplinary literature. Life satisfaction as a

stand-alone construct is correlated with happiness (Jopp & Rott, 2006) and gives a good measure of one important facet of successful aging. It is often associated with good health, but it is not a measure of health, as it has been found in individuals in poor health (Strawbridge, Wallhagen, & Cohen, 2002). Lower life satisfaction has been linked to higher suicide rates, a critical issue in older adults (Bray & Gunnell, 2006). Those less satisfied with their lives as evidenced by lower subjective well-being (a construct highly correlated with life satisfaction) are at higher risk from all-cause mortality, experiencing significantly shorter lifespan than those with higher well-being (Iwasa, Kawaai, Gondo, Inagaki, & Suzuki, 2006).

It is clear that life satisfaction is an important part of a positive aging experience. Older adults often experience deficits in their abilities to participate in activities that once created satisfaction and happiness with life. Despite this, many older adults experience stability in life satisfaction if not an outright increase, with those 100 years of age or greater reporting life satisfaction commensurate to middle-aged adults despite generally experiencing multiple losses, physical declines, and illnesses (Jopp & Rott, 2006). From this, it becomes clear that the average older adult is employing some form of compensatory coping to make up for losses and allow a continuation of former levels of satisfaction with life. It is reasoned that television might just be one of the coping devices this group is employing. For example, through television viewing, older adults can invite warm chatter into a quiet home, but can also turn it off without worrying about offending others if they get tired or begin to feel poorly. Demands of television are low, but rewards can be reasonably high, and this just might fit in well to an attempt to enhance life satisfaction effectively despite limitations.

Purpose and Hypotheses

Older adults have more leisure time than any other age groups, and spend more leisure time watching television than they do engaged in any other single leisure pursuit (U.S. Bureau of Labor Statistics, 2007). The older adult population of the United States is rapidly expanding as the large baby boomer population born between 1946 and 1964 reaches seniority. In the year 2011 this enormous generation begins to turn 65, heralding the commencement of a sweeping demographic shift. By the year 2025, the percentage of people aged 65 and older is expected to double from what it was in 1995. In 1995, 1 in 8 Americans were elderly, while in 2025 about 1 in 5 will be elderly. The oldest old (those 85 and older) are projected to be the fastest part of the elderly population into the next century (U.S. Census Bureau, 1996). Obviously it will be more important than ever to understand this generation's experience of aging and to address their needs effectively. To that end, gaining knowledge of the interplay of the most common pastime of older adults and quality of life issues such as mood symptoms, loneliness, social support, and life satisfaction will be imperative. This study proposes to address this important dynamic as a way of attempting to harness the positive effects and mitigate the negative effects of this potentially extremely influential activity. Research along these lines is sparse, and most television watching research has focused on non-elderly populations, particularly children, leaving it difficult to know whether findings would generalize to older adults.

Older adults have particular life circumstances that make them different from younger people. Though far from being a homogeneous group, certain things are much more common in the older adult population, and some of these variables might cause television watching to exert a different effect on this population than it does on other,

more studied populations. One of these variables is the experience of functional disability and many types of physical disability are common in older adults. (Fried & Guralnik, 1997). Given this reality, many activities that might be expected to occupy leisure time, and many activities that might once have been satisfying to these individuals are potentially no longer viable options. Older adults must seek out new ways to spend leisure time, and are in a stage of life where leisure time is at an all time high. Many of these individuals who once enjoyed careers that filled their day with structure, expectations, and meaning, and might now be retired, creating additional voids to be filled. A certain amount of television viewing might actually be helpful to structure their days and provide something to look forward to (Fout, 1989). Older adults also frequently experience a reduction in overall social contact with others, and it is possible that a certain amount of viewing can fill some of the socialization needs of older adults (Due et al., 1999).

SOC theory provides a framework for understanding the potentially positive role television might play in the lives of older adults as they experience losses in abilities (Freund & Baltes, 1998). When older persons are unable to participate in activities they once enjoyed, they often compensate for the loss of ability to participate in one activity by compensating through another activity that fills a similar role in their lives. According to SOC theory, therefore, older adults who age successfully are those who are particularly adept at this process of compensating through optimizing abilities they do possess. It is likely that television watching might be one of many of these compensatory activities that can help add quality to older lives, particularly if used in moderation and not to the point of displacing other activities that might add variety and enjoyment to their lives.

Therefore, it is also likely that it will be found that television can be overused, and when it is, any potential mood elevating, loneliness ameliorating, or life satisfaction enhancing properties will be lost.

The cognitive model (Beck, 1976) also provides a framework for understanding how television might function to either enhance or detract from the lives of older adults. When a person seeks out a television program in an effort to alleviate distress, such as a funny program when feeling depressed, or a chatty talk show when feeling lonely, and then watches the program attentively, it has the potential to soothe distress. However, when the individual does not attend to the program, simply leaving the television on while attending to other things, the cognitive, potentially mood-improving elements of viewing are not available to the individual, and therefore the level of distress will likely remain the same.

How does television viewing impact older adults psychologically? Does the way in which older adults view television impact their mood and quality of life? The present study seeks to better illuminate how television influences older adults' depression, loneliness, anxiety, and life satisfaction. Hypotheses include several directional hypotheses based on previous research findings and several non-directional, exploratory hypotheses:

1. SOC theory explains how older adults might use activities such as television viewing to compensate for activities in which they can no longer participate as a way of optimizing their remaining abilities (Freund & Baltes, 1998). Optimizing would entail doing the most with the abilities one has in order to maximize enjoyment of a particular life stage, so television watching could be one aspect.

Too much viewing is likely to indicate poor adaptation; however, as television watching as the sole leisure pursuit of an older adult does not suggest good optimization. Therefore, amount of television (light, moderate, or heavy) viewing was expected to influence older adults such that:

a. Heavy viewers will report greater depressive symptoms (Sidney et al., 1996)
b. Heavy viewers will report greater loneliness (Kraut et al., 1998)
c. Heavy viewers will report greater anxiety (Comer, et al., 2008)
d. Moderate viewers will report greater life satisfaction (Freund & Baltes, 1998)

2. As explained in the cognitive model, the way an individual thinks has a powerful effect on how he or she feels (Beck, 1976). Based on this, there should be a difference between the effects that active viewing would have on an individual as opposed to the effects of passive viewing. Viewers who report half or more of their television viewing to be active viewing, therefore, are predicted to differ from those who report that half or more of their viewing episodes are passive. Viewers who are evenly divided between active and passive viewing, the active/passive group are expected to share similarities and differences with both groups. It was predicted that active and passive television viewers will differ in scores on measures of:

    a. depression
    b. loneliness
    c. anxiety
    d. life satisfaction

CHAPTER II

METHOD

Participants and Setting

A convenience sample was obtained consisting of 100 older adult participants with a mean age of 77.07 years (*sd* = 7.89), with 77 women and 27 men, and a racial/ethnic breakdown of 94 white, 4 Asian and 2 Latino participants. The sample was recruited from Hillcrest Retirement Community and Mount San Antonio Gardens, both located in La Verne, California and the Joslyn Senior Center located in Claremont, California. Hillcrest Retirement Community and Mount San Antonio Gardens both feature levels of care from independent living/active senior housing for those requiring no formal assistance for activities of daily living to dementia care and skilled nursing for those requiring full time assistance. In order to avoid introducing additional confounds into the study, participants were recruited solely from the independent living sections of these communities. All participants were required to be 65-years of age or older and able to record, in the form of a written record, one week's worth of television viewing logs as well as to complete a series of questionnaires which assessed various mood and quality of life variables and basic demographic information.

Measures

Hospital Anxiety and Depression Scale (HADS). Mood symptoms of anxiety and depression were assessed using the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). This 14-item self-report measure is widely used for assessing both anxiety and depression in non-psychiatric populations (Herrmann, 1997). The

brevity of the HADS instrument makes it an ideal measure for assessing mood symptoms when a shorter measure is important, such as with older adults who might be taxed by lengthy questionnaires. One distinct advantage of using the HADS scale over other instruments is that it was designed to measure the affective symptoms of mood disorders independent of physical symptoms, eliminating some potential confounds to assessing mood symptoms (Osbourne, Elsworth, Sprangers, Oort, & Hopper, 2004).

Scoring is conducted by dividing the questions into two component scales, one of which measures anxiety symptoms and the other of which measures depressive symptoms. Scores of eight and above on the anxiety or depression subscale indicate the presence of *possibly clinically relevant* anxiety or depression, respectively. Scores of 11 or above on the anxiety or depression subscale indicates *probable clinically relevant* anxiety or depression, respectively (Zigmond & Snaith, 1983). One recent study of chronic fatigue patients and mood symptoms used the HADS scale and found Cronbach's alpha of the entire 14-item scale was 0.88, the HADS Anxiety subscale (HADS-A) was 0.86, and the HADS Depression subscale (HADS-D) was 0.81 (McCue, Martin, Buchanan, Rodgers, & Scholey, 2003). Researchers noted that this was sufficient to satisfy the threshold for acceptable instrument internal reliability established by Kline (1993, as reported in McCue et al., 2003). Pearson's correlation coefficients for the HADS-A and HADS-D subscales found the subscales of HADS to be significantly and positively correlated, as calculated using two-tailed Pearson's correlation coefficients (r=0.56, p<0.001) (McCue, et al, 2003).

UCLA Loneliness Scale (Version 3). Loneliness was measured using a modified, brief ten-item subset of the UCLA Loneliness Scale, Version 3 (Russell, 1996), which is

a 20-item, self-report questionnaire with questions intended to assess different dimensions of loneliness. Responses are given on a four-point Likert scale and range from: "1=Never" to "4=Always." Respondents are instructed to indicate how often they feel the way described. Sample questions include: "How often do you feel that you lack companionship," and "How often do you that there are people you can talk to?" Scoring is conducted by summing together all items. Higher scores indicate the presence of greater degrees of loneliness (Russell, 1996).

When administered to a sample of 301 individuals over the age of 65, all of whom were in good health and community-dwelling, it was found that the scale if very reliable with this population (r=.89) (Russell, 1996). Test-retest reliability was assessed by re-administering the scale one year after the initial administration and was found to be very high as well, with a correlation of .73 (Russell, 1996). These results are similar to reliability and validity of the previous two versions of the UCLA Loneliness Scale, but this version seems to be more appropriate for an older adult population due to the omission of some ambiguous wording that has been shown to cause confusion with some respondents and the elimination of wording that led to potential double negative responses (e.g., a previous question, "I do not feel alone," became confusing to some respondents when paired with the possible response, "Never"). These issues were considered particularly confusing for older adults and were hypothesized to explain discrepancies between previous versions of the UCLA Loneliness Scale and other valid and reliable measures of loneliness in older adults (Russell, 1996). Construct validity was supported as well, with the UCLA Loneliness Scale, Version 3 demonstrating strong negative correlation with social provisions (a measure of the perceived strength of an

individual's social network) (r=-0.54) and life satisfaction (r=-0.36), and strong positive correlation with depression (r=0.45) (Russell, 1996).

Life Satisfaction Index-Z (LSI-Z). Life satisfaction was measured using the Life Satisfaction Index-Z (*LSI-Z*, Wood, Wylie, & Sheafor, 1969). The LSI-Z was modified by Wood, Wylie, and Sheafor (1969) from the Life Satisfaction Rating Scale (LSR), a lengthier scale created by Neugarten, Havighurst, and Tobin (1961). The LSI-Z, a briefer, 13-item self-report measure has benefits over the longer LSR including taking less time to administer and thus being less taxing on the older adult participants for whom it is intended (Wood, Wylie, & Sheafor, 1969). Both the LSR and the LSI-Z were designed to assess the psychological well-being of persons aged 65-years and older and the LSI-Z is currently one of the most commonly used instruments for examining the psychological well-being of older adults in the gerontological research today (Bowling, 1997). Edwards and Klemmack (1973) determined that the LSI-Z has an internal consistency reliability coefficient of 0.90, and a split-half reliability of 0.79.

There are three possible responses to each of the 13 questions: *Agree*, *Disagree*, and *Uncertain*, and each possible response is assigned a point value of 0, 1, or 2. Possible scores range from 0 – 26, therefore, and higher scores represent greater life satisfaction. Sample questions include: "I am just as happy as when I was younger," and "I have made plans for things I'll be doing a month or a year from now." Five of the 13 items are reverse-coded to control for acquiescent response sets.

Demographic Questionnaire. Participants were asked to fill out a self-report questionnaire designed by the researcher including items regarding age, sex, ethnicity/race, marital status, household composition, education level attained,

employment/retirement status, health status, physical disabilities, and hobbies/interests. Participants were asked to complete this questionnaire prior to being given a log where they tracked their television viewing habits for one week, indicating time spent watching television actively, passively, or not at all for every 30-minute period during the time span.

Procedure

Participants were recruited through a series of informational meetings conducted at two separate senior communities, Hillcrest Homes and Mount San Antonio Gardens, and at the Joslyn Senior Center in Claremont, CA. Flyers were distributed prior to these meetings to try to entice older adults meeting the inclusion criteria to attend. From these efforts, a convenience sample of 100 adults aged 65-years and older was recruited. Meetings employed a script explaining details about the study, including that participation is voluntary, but greatly appreciated, and that all participants are automatically entered in a drawing to win a prize: one of 30 - $5 or 10 - $10 gift certificate to Trader Joe's grocery store raffled off at the conclusion of data collection.

Participant criteria for inclusion in the study was: being an independent, community-dwelling individual, not requiring skilled nursing or other higher levels of care for basic living needs, being at least 65-years of age, being able to complete required questionnaires and television viewing log, owning at least one television that is in working order and receives multiple television stations, and being willing to maintain a log of viewing for a one-week period.

Individuals who met the criteria for inclusion and were willing to participate were given an informed consent to sign, explaining participant rights, researcher obligations,

and how participants can seek help in the case of any distress caused by the research study process or questions. Participant anonymity was ensured through the informed consent, as it was the only document where participant names were recorded. Questionnaires and logs contained only a randomly assigned participant identification number to ensure confidentiality.

Upon completing the Informed Consent and agreeing to participate, participants were given a questionnaire that included a demographics survey as well as the HADS Anxiety and Depression inventories, the UCLA Loneliness Inventory, and the LSI-Z to complete. Participants were asked to fill out their questionnaire anonymously and then hand it in to the researcher who collected all questionnaires in a separate manila envelope from that housing the Informed Consent forms. Some participants preferred to take their questionnaires home and complete them later, and this was also allowed.

Next, television logs were distributed and their use explained fully to all participants. Each log was coded with a participant number that allowed it to be linked back to the corresponding participant's questionnaire completed while still maintaining participant anonymity. Participants were encouraged to ask questions and received as much explanation and guidance as necessary to assure comprehension and consistent use of logs.

Logs consisted of a grid featuring time blocks accounting for every half hour of each 24-hour day for a period of one week. Participants were asked to start on the morning of the day following the receipt of their log, and for that day and a total period of seven consecutive days, were to put a mark in a box indicating each hour they watched television. The box was marked 'A' for *actively watched,* defined as watching attentively

enough to discuss the program viewed, 'B' for *passively watched,* defined as watched, but paid little attention to program content, or 'N' to indicate a non-viewing time period, where either the television was off or the participant was not in the same room as the television. At the completion of the study, each participant completed a full log with 7-days worth of viewing filled out in this manner.

Participants were given thorough instructions for completing logs before leaving the meeting and in writing on the first page of the log, and the researcher's contact information was provided to answer any follow-up questions or concerns that might have emerged. At the end of the seven days, the researcher collected the logs and thanked participants again for their time when possible (often participants chose to leave logs with a trusted staff member at the recruitment facility).

The drawing for prizes was held upon completion of the data collection phase of the study, and prizewinners were notified by phone or e-mail, based on individual preference. Prizes were mailed to winning participants within 2 weeks of the completion of data collection.

CHAPTER III

RESULTS

Descriptive Characteristics

The sample consists of 100 community-dwelling older adults, 65 years of age and older residing in southern California. As can be seen from Table 1, the participants ranged from 65 – 96 years of age, with a mean age of 77.07 years (SD = 7.89). The majority of the participants were women, (n = 73), with only 27 participants identifying as male, and Caucasian (n = 94) with only 6 participants identifying with race or ethnicity other than Caucasian. The largest percentage of participants were currently married, though more than half the sample reported being widowed, divorced or separated, or never married, and mean household size was 1.61 persons (SD = .60), with the overwhelming majority of participants reporting living in households with one or two members only (n = 96). The majority of the participants are not employed, but a large percentage reports keeping active through engaging in volunteer work, hobbies, and leisure activities regularly.

Preliminary Analyses

Prior to conducting data analysis, all variables were screened in order to determine if any normality assumptions were violated. First, the sample sizes were deemed adequate, and some variability in the means was noted. The skewness and kurtosis for all variables were deemed acceptable. No missing values were found.

Table 1

Demographic Characteristics of Participants (N = 100)

Characteristic	n	%
Gender		
Female	73	73
Male	27	27
Race/Ethnicity		
Asian/Pacific Islander	4	4
Caucasian/White, Non-Hispanic	94	94
Hispanic/Latino	2	2
Marital Status		
Never Married	6	6
Widowed	28	28
Divorced/Separated	17	17
Married/Partnered	49	49
Number of Persons in Household		
One (Self Only)	44	44
Two	52	52
Three	3	3
Four or more	1	1
Televisions in Household		
One	39	39
Two	34	34
Three	17	17
Four or more	10	10
Subjective Rating of Health		
Excellent	31	31
Very Good	45	45
Good	17	17
Fair	7	7
Poor	0	0
Employed		
Yes	11	11
No	89	89
Volunteer Work		
Yes	66	66
No	34	34

Next, scores obtained on the three measures, the Hospital Anxiety and Depression Scale – Depression (HADS-D), the Hospital Anxiety and Depression Scale – Anxiety (HADS-A), the UCLA Loneliness Scale, and the Life Satisfaction Inventory – Z (LSI-Z) were compared to normative samples using descriptive statistics and single sample *t*-tests. On the HADS-D, participant scores ranged from a minimum of 0 to a maximum of 13, with a mean score of 2.84 (*SD*=2.30). A comparison sample was obtained from a study that examined 1,930 non-demented, community dwelling older adults (males: *n*=871, females: *n*=1059) aged 72-74 years (Biringer et al., 2005). Biringer et al. found a range of scores from 0 – 16, and a mean score of 3.5 (*SD*=2.8). A one-sample *t*-test revealed that participants in this study scored significantly differently on the HADS-D than Biringer et al's respondents ($t(99) = 2.87, p < .005$). This may be due in part to the larger sample size in Biringer et al's study, as well as the narrower range of ages and the larger percentage of men to women in the present sample.

The mean score of the study group on the HADS-A was also compared to the mean HADS-A score of Biringer et al's sample, described above. Biringer et al's sample had a range of 0 – 16 and a mean of 4.1 (*SD* = 3.2). Participants in this study had a range of scores from 0 – 13 and a mean of 3.83 (*SD* = 2.49). A single sample *t*-test revealed that the samples did not differ significantly from one another ($t(99) = 1.08, p = .281$).

The mean score of the study group on the UCLA Loneliness scale was then compared to the mean of a comparison group. Since the version of the UCLA Loneliness Scale given in this study was a specific 10-item subset used in an effort to avoid overwhelming participants with lengthy protocols, normative samples were less readily available, and the most appropriate comparison group found was derived from a study

conducted by Russell (1996) which sampled 316 teachers (94 males and 222 females, with age range not provided). Russell's sample had a range of 10 – 37 and a mean of 19.22 (SD = 5.11). Participants in this study had a range of scores from 10 – 29 and a mean of 17.17 (SD = 4.69). A single sample t-test revealed that the samples differed significantly from one another ($t(99) = 4.37, p < .001$). As indicated above, the comparison group differed from the study group in several ways, and it is likely that these differences were sufficient to create a significant difference in mean scores. The direction of the difference is consistent with the literature, however, with the nurses in Russell's study (assumed to be below retirement age) being younger and having higher loneliness scores, and the older adult participants in this study reporting lower loneliness, this finding is consistent with other research into age differences in loneliness (Russell, 1996).

Finally, the mean score of the study group on the LSI-Z was also compared to the mean LSI-Z score of a comparison group consisting of 633 men and 961 women, with a mean age of 72 years (SD = 10; Chan, Muhlen, Kritz-Silverstein, & Barrett-Connor, 2009). Chan, et al.'s sample had a mean of 20.45 (SD = 4.95), and no range was reported. Participants in this study had a mean of 20.19 (SD = 4.25) and a range of 6 - 26. A single sample t-test revealed that the samples did not differ significantly from one another ($t(99) = .61, p = .542$).

Main Analyses

First, bivariate correlations were assessed looking at the total number of hours spent watching television and the four variables of interest, depression, anxiety, loneliness and life satisfaction, revealing a significant negative correlation between the total number of hours spent viewing and life satisfaction ($p<.05$) (see Table 2).

Table 2

Pearson Correlation Coefficients for Television Watching Level and Depression, Anxiety, Loneliness, and Life Satisfaction Scores

	Total Hours Viewed	LSI-Z Score	HADS-D Score	HADS-A Score	UCLA Loneliness Score
Total Hours Viewed	1.00	-.200*	.186	.081	.158
LSI-Z Score	-.200	1.00	-.300**	-.132	-.288**
HADS-D Score	.186	-.300**	1.00	.166	.221*
HADS-A Score	.081	-.132	.166	1.00	.377**
UCLA Loneliness Score	.158	-.288**	.221**	.377**	1.00

*$p < .05$

**$p < .01$

Hypothesis 1 concerned the possible effect that amount of television (light, moderate, or heavy) viewing might exert on the dependent variables such that:

a. Heavy viewers would report greater depressive symptoms (Sidney et al., 1996).
b. Heavy viewers would report greater loneliness (Kraut et al., 1998).
c. Heavy viewers would report greater anxiety (Comer et al., 2008).
d. Moderate viewers would report greater life satisfaction (Freund & Baltes, 1998).

In order to test Hypothesis 1, viewing was divided into three groups: heavy, moderate, and light viewing based on the distribution of the sample. The sample mean was 33.82 (*SD*=16.56), had a mode at 33.0, and was positively skewed, with scores tending to cluster around the lower total hours of viewing and sparser distribution in the greater hours of viewing. Score cutoffs were determined in an effort to reflect these tendencies, with total viewing hours from 3 – 24 assigned to the "Light Viewing" group, 25 – 43 assigned to the "Moderate Viewing" group, and from 44 – 86 to the "Heavy Viewing" group. These cutoffs created 3 groups with the "Moderate Viewing" group being the largest (*n*=42), the "Light Viewing" group being the next largest (*n*=32), and the smallest group being the "Heavy Viewing" group (*n*=26), which corresponds well to the distribution of data overall. Additionally, this distribution allowed the mode and mean scores of the data set to be included in the "Moderate Viewing" group.

A one-way between-subjects multivariate analysis of variance (MANOVA) was utilized to analyze the potential relationship between amount of time spent watching television on depression, anxiety, loneliness, and life satisfaction. The one-way between-subjects MANOVA was conducted using Statistical Package for the Social Sciences (SPSS) Predictive Analytics Software (PASW) Statistics on four, metric dependent

variables: depression, anxiety, loneliness, and life satisfaction. Time spent viewing (heavy viewing, moderate viewing, and light viewing) was used as the categorical independent variable.

Because Box's *M* was statistically significant (p=.005), it was concluded that there was not equality of variance-covariance matrices of depression, anxiety, loneliness, and life satisfaction across the levels of amount of viewing. Bartlett's test of sphericity was also statistically significant (p<.001), indicating that there is a sufficient correlation between the dependent variables implying that further analysis is necessary.

A preliminary analysis of the means and standard deviations of the groups was conducted (see Table 3). Because Box's M was significant, Pillai's trace was evaluated (F=1.99, p=.050), and it was determined that a statistically significant multivariate effect existed for total amount time spent viewing television. A test of between-subjects effects was then conducted to determine what was driving the statistically significant main effect of amount of viewing. It was concluded that life satisfaction was statistically significant, (F=3.50, p=.034). An LSD post hoc test suggested that people who watch a heavy amount of television reported significantly lower life satisfaction in comparison to both light and moderate viewers. However, there was not a statistically significant difference between those who watched a light amount and a moderate amount of television in regards to life satisfaction (see Table 4).

Next, hypotheses concerning viewing type were analyzed to determine if those who primarily watch television actively differ significantly from those who primarily watch passively. It was hypothesized that since the way an individual thinks has a powerful effect on how he or she feels (Beck, 1976), there should be a difference

Table 3

Mean Scores and Standard Deviations for Measures of Anxiety, Depression, Life Satisfaction, and Loneliness as a Function of Amount of Viewing

	HADS-A Score		HADS-D Score		LSI-Z Score		UCLA Loneliness Score	
Amount of Viewing	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Light Viewing	3.22	2.28	2.19	1.97	20.91	4.07	16.50	4.50
Moderate Viewing	4.31	2.82	2.88	2.20	20.71	4.22	16.98	4.91
Heavy Viewing	3.81	2.06	3.58	2.66	18.46	4.18	18.31	4.54

Light Viewing: $n = 32$
Moderate Viewing: $n = 42$
Heavy Viewing: $n = 26$

Table 4

LSD Post Hoc Test Results: Mean Differences between Viewing Groups on LSI-Z Score

	LSI-Z Score		
Viewing Group I	Viewing Group II	Mean Difference	Significance
Light Viewing	Moderate Viewing	.19	.85
	Heavy Viewing	2.44*	.03
Moderate Viewing	Light Viewing	-.19	.85
	Heavy Viewing	2.25*	.03

*$p < .05$

between the effects that active viewing would have on an individual as opposed to the effects of passive viewing, since active viewing allows viewers to engage more fully with content, while passive viewing is done without the viewer paying attention or thinking about what is being broadcast. Because of this, Hypothesis 2 states that active and passive television viewers will differ in scores on measures of:

a. depression

b. loneliness

c. anxiety

d. life satisfaction

A preliminary analysis of the means and standard deviations of the groups was conducted (see Table 5), however, no significant differences were found between active viewers and passive viewers on any of these measures (F=1.31, p=.243). It appears that viewing style had no significant effect on depression, anxiety, loneliness, or life satisfaction. The reasons for this finding may include limitations of the study design, which will be discussed in more detail in a subsequent section. As no normative data were found to help guide expectations of typical passive viewing ranges for older adults, it is difficult to draw any conclusions about this sample in regards to proportion of active and passive viewing reported.

Additional Analyses

It was further theorized that there would be an interaction effect found between gender and amount of viewing, since previous studies had found that older women overall report higher amounts of depression (Blazer & Williams, 1980; Weissman, et al., 1991), so results were put through an additional analysis to determine if depression by

Table 5

Mean Scores and Standard Deviations for Measures of Anxiety, Depression, Life Satisfaction, and Loneliness as a Function of Type of Watcher

	HADS-A Score		HADS-D Score		LSI-Z Score		UCLA Loneliness Score	
Type of Watcher	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Active Viewer	3.75	2.47	2.99	2.35	19.97	4.28	17.06	4.85
Passive Viewer	4.50	2.84	1.40	1.17	22.00	3.89	18.60	2.91
Active/Passive Viewer	4.00	--	4.00	--	22.00	--	13.00	--

Active Viewers: $n = 89$

Passive Viewers: $n = 10$

Active/Passive Viewers: $n = 1$

viewing type might be significant by gender. To assess the hypothesis that male and female light viewers, moderate viewers, and heavy viewers will differ from each other on scores of depression, a 2-way between-subjects multivariate analysis of variance (MANOVA) was utilized, examining the relationship between amount of time spent watching television and gender on depression, anxiety, loneliness, and life satisfaction.

Next, because Box's M was statistically significant, Pillai's trace was used in order to assess the multivariate interaction effect between gender and amount of viewing. Because Pillai's trace was not statistically significant at alpha level (p=.382), it was determined that there is not a significant interaction between the independent variables (gender x amount of viewing).

From the results of the analyses, therefore, one can conclude that those who watch a heavy amount of television are less satisfied with their lives as evidenced by lower scores on a measure of life satisfaction. Active versus passive viewing type does not significantly affect amount of depression, anxiety, loneliness, or life satisfaction. Gender, in conjunction with amount of viewing (heavy, moderate, or light), also does not significantly affect amount of depression, anxiety, life satisfaction, or loneliness in older adult television viewers.

CHAPTER IV

DISCUSSION

Overview of Study

The purpose of the current study was to examine how television influences older adults in regards to depression, loneliness, anxiety, and life satisfaction, through looking at these variables in regards to amount of viewing (heavy, moderate, or light) and also in regards to type of viewing (active versus passive). This study also examined whether correlations could be identified in regard to time spent watching television and depression, loneliness, anxiety, and life satisfaction. Finally, the potential effect of gender to mitigate or exacerbate these effects was examined.

This topic was chosen for several reasons. The study population, adults 65 years of age and older, is projected to experience the fastest growth of any age group in the United States beginning in 2011 as the first members of the enormous baby boomer generation turn 65 (U.S. Census Bureau, 1996). At the same time, birth rates are decreasing and people are overall living longer than ever before, leading to a shift in the population composition of the United States (Nordhus, VandenBos, Berg, & Fromholt, 2007; U.S. Census Bureau, 1996). Clearly there will be challenges to dealing with this change and psychological research, just like other fields, will have to address many gaps in the literature that exist due to a long history of failing to consider the particular needs of older adults (Whitborne, 2001).

Television is a phenomenon that has been around for the majority of lives of most older adults, and by the late 1940s, over 1 million U.S. households contained a television.

Families gathered around the television sets of neighbors when they did not have one of their own, and viewing television fast became a focus of weekly American life. This is the culture today's older adults were raised in, and it has been stated that in a very few years, the generation entering seniority will not be able to remember a time before television was a presence in their lives (Abramson, 2003). This is clearly a cultural phenomenon, a presence that has entered the American home and instilled itself in some very important ways, yet there is an almost complete absence of psychological literature about how this ubiquitous presence interacts with the older adults who view it.

Older adults have more free time than any other age group, and it is estimated that adults aged 65 – 74 have 5.2 hours per day and those aged 75 and above have 7.6 hours per day to devote to leisure activities (U.S. Bureau of Labor Statistics, 2007). And what are they doing with all of that free time? Television watching is the single most common leisure activity of adults aged 65 and older, and the U.S. Bureau of Labor Statistics found it occupies an average of 4.3 hours per day of the older adult's leisure time, with a full 89% of adults reporting daily television watching. This study found a similar result, with respondents reporting an average of 4.8 hours of daily viewing.

Television watching has an ease of use and an ability to appeal to people with a wide array of different interests, both of which make it an alluring option for older adults as it is for other age groups. There are low requirements for participating, so even frail elders can enjoy this activity. There is a large amount of television programs and specialty cable channels designed to attract even thought with less traditional interests (and a full 85% of this sample reported receiving cable stations in addition to the basic

network offerings). Television can provide shared experiences for friends, neighbors, or even geographically distant family members to discuss together.

It is obvious why older adults would be likely to watch television, therefore. It is even well established that they are watching television. What we do not know is what this means. There are no empirically based guidelines mental health providers can give to clients to help them determine what amount of viewing is a healthy or unhealthy amount. There is no certainty about whether the research findings regarding children and non-elderly adults can be generalized to older adults. There is simply a dearth of research concerning what is clearly an important and ubiquitous cultural phenomenon. This study was created to begin to address that sizable gap.

Interpretation of the Findings

Hypothesis 1: Differences based on amount of viewing.

Hypothesis 1a. Hypothesis 1a states that heavy viewers will report greater depressive symptoms. Previous studies have found a link between heavy television viewing and depression in non-elderly adults (Sidney et al., 1996), but no similar studies of older adults were found. A study examining how older adults perceive television viewing in others revealed that the older adult participants believed that those who watch a large amount of television are depressed and believed heavy television watching to be a sign of depression in others (Nguyen, Wittink, Murray, & Barg, 2008), suggesting that there is some anecdotal, folk wisdom perception of a link between heavy television watching habits and depressed mood.

This study found no evidence for such a link, finding that those participants who watched heavy amounts of television were not significantly more depressed than those

who watched moderate or light amounts of television. In fact, none of the amounts of viewing groups were significantly different from one another in regards to depression.

It is possible that this result was due to the depression scale being used being particularly face valid and testing conditions putting participants in close proximity to one another where others might be able to read a participant's answers, leading to the possibility of some participants choosing to underreport depressive symptoms they might find embarrassing. It is also possible that watching more or less television does not significantly effect the likelihood that an older adult will be depressed, as television viewing might have positive as well as negative aspects, and the act of viewing alone might not be the right predictor of how viewing effects depression in older adults.

Hypothesis 1b. Hypothesis 1b states that heavy viewers will report greater loneliness. Loneliness is highly correlated with depression, (Kraut et al.,1998), and thus many of the statements made previously about how heavy television viewing and depression might relate to increased depression also relate to television watching and loneliness. As viewing time increases, it might leave less time for socialization and contribute to isolating and social withdrawal, which, in addition to being depressive symptoms are also a part of the construct "loneliness." However, heavy television watching and increased loneliness were not found to be associated with one another in this study. The respondents were found to be generally not very lonely overall, and there was no significant difference in loneliness based on amount of viewing, gender, or gender and amount of viewing considered together.

Previous studies looking at loneliness and older adults have also found low levels of loneliness in this population, running contrary to a common notion of older people as

lonely and isolated, starved for company (see Russell, 1996). Instead, it appears the participants in this study and those in many other studies as well show a different picture of growing older in the United States, one where the amount of companionship is well suited to the individual and the perception of social support is that the support network is at least adequate. Russell (1996) defines loneliness in terms of perception of the individual of being or not being lonely, and it seems useful to remember that it has been found that amount of loneliness does not correlate with the actual size of the social network, nor the number of hours of companionship, but rather involves the *perception* of the adequacy of the social network and amount of social contact and connectedness one feels him or herself to have (Cummings et al., 2003; Due, Holstein, Lund, Modvig, & Avlund, 1999; Stokes & Levin, 1986; Weiss, 1973). Clearly this is a highly individualized notion and the actual amount of supports and contact one has with their supports might do little to inform the amount of loneliness one feels.

Given this understanding of what loneliness actually is and is not, it becomes less surprising to find that this sample was not found to be lonely. This sample was recruited through flyers advertising the study as a fun and important event, making it more likely that participants would be individuals who enjoy participating in activities and getting involved. Often participants recruited friends and neighbors to join them at the informational meetings, showing that participants often had good social connectedness with others who live nearby. The facilities where participants were found offer a variety of activities daily (retirement communities and senior center alike) so it is relatively easy to find socialization opportunities. Additionally, it is likely that the participants were some of the more social and outgoing members of their peer group simply by virtue of

them agreeing to get involved in this study at all. So while older adults as a group have not previously been found to be as lonely as other age groups, the particular individuals recruited for this sample are likely to have been even less lonely than average for their peer group, all of which makes the finding that regardless of amount of television watched, no significant loneliness was found, and groups did not differ significantly from one another in terms of loneliness. It is also quite possible that older adults simply are not particularly lonely as a group, a finding that is supported by past research that showed loneliness to be a relatively stable construct throughout the lifespan (see Hawkley & Cacioppo, 2007), and television viewing does little to mediate that effect.

Hypothesis 1c. Hypothesis 1c states that heavy viewers will report greater anxiety. Though the respondents in this study endorsed more anxiety than depression, no significance was found for anxiety and amount of viewing, and overall the amount of anxiety endorsed by participants was very low. Assessing anxiety in older adults remains a difficult area, however, and there are many researchers who believe that the construct of anxiety is not being adequately or consistently measured in older adults by the available instruments (Bryant, Jackson, & Ames, 2007; Gatz & Fiske, 2003; Scogin, 2007).

One difficulty is separating out normal experiences of subsyndromal worry from more concerning pathological anxiety. This is particularly important given the fact that anxiety is able to be well managed through clinical interventions, and without the ability to properly assess the difference between pathology and normalcy in regards to anxious feelings, treatment is unlikely (Scogin, 2007; Wetherell, Gatz, & Le Roux, 2003).

Without adequate means of reliably assessing anxiety, therefore, it is unclear why this study yielded a finding of low anxiety in participants overall and no effect for

amount of television watching on level of anxiety. It is certainly possible that this is a true finding in regards to this population, or that this is a true finding in regards to this specific sample due to some characteristics of the sample itself, but it should also be considered possible that the lack of a significant finding is an artifact of the instrument used to measure anxiety, and that, though this instrument was chosen for ease of use, brevity, and affordability, there was perhaps not a reliable instrument available to measure anxiety in older adults, even if all were equally available to this researcher.

Hypothesis 1d. Hypothesis 1d states that moderate viewers will report greater life satisfaction. Life satisfaction has been found by previous studies to be a relatively stable construct, independent of aging, declining health, and other measures of functioning – those who are satisfied with their lives tend to remain so, despite the development of functional impairments, negative life circumstances, and advancing age (Schilling, 2006). One study showed that adults 50 years of age and older had the highest levels of life satisfaction, contentment, and stability of any age group (Butt & Beiser, 1987). Life satisfaction is another difficult concept to define and many researchers had tried to pinpoint what constitutes this elusive construct (Berg, Hassing, McClearn, & Johansson, 2006; Stanley & Cheek, 2003; Strawbridge, Wallhagen, & Cohen, 2002). No studies were found that specifically examined life satisfaction and television viewing in older adults. However, by looking at components of life satisfaction, a recent study examining happiness and television viewing by Robinson and Martin (2008) determined that adults who watch the most television are the least happy. Unfortunately, this study did not publish demographics such as age, so it is unclear what age group the sample comprised.

In analyzing the results of this study, it was found that those who watch the most television (heavy viewers) are the least satisfied with their lives, reporting significantly lower life satisfaction than either moderate or light viewers. This finding seems to make sense in light of the research into life satisfaction since individuals who are more satisfied with their lives might be likely to be more active and participate in more activities and be less likely to spend large amounts of time watching television, which would inevitably crowd out other interests and activities including social and meaningful leisure pursuits. Though it seems likely that television watching can be a part of a satisfying later life, it is probable that too much of this one activity would not be satisfying.

Hypothesis 2: Differences based on viewing style. These hypotheses concerned active versus passive viewing style and depression, loneliness, anxiety, and life satisfaction. The findings for each were the same and it is likely that the reason for this lies in the concept they all share, that of "active" and "passive" viewing. The idea that there might be a difference between viewing's effects on mood and quality of life predicated on whether one watches and pays attention or watches inattentively with television on in the background, is grounded in cognitive theory (Beck, 1976). The cognitive model offers a theoretical mechanism by which thoughts lead to feelings and behaviors, and this explanation was extended to viewing to allow the hypothesis that actively viewing television could influence mood via the content of what is viewed (for example, by watching a comedy when feeling sad, one could begin thinking happier thoughts and might begin experiencing a happier, more positive mood). Passive viewing would not offer the same opportunity since the material would not be absorbed on a cognitive level.

Very low levels of passive viewing were logged by participants, however, and it is unclear whether this is a result of participants not passively viewing, or not understanding what is meant by passive viewing. It is difficult to know which of these was responsible for the low rate of passive viewing, but primarily passive viewers comprised only 10% of the sample, and 18% of respondents logged no passive viewing whatsoever, with a full 50% of the sample logging 4 hours or less of passive viewing. Though these numbers might be accurate, there is reason to question whether the hypothesis was incorrect or the methodology of the experiment was at fault.

Limitations of the Present Study

While this study was able to determine specific findings regarding a particular subsection of older adults, the overall homogeneity of the sample prevented a broader understanding of the older adult population from being gained, and limited the degree to which the findings can be generalized to the population of older adults in general. The sample primarily consisted of healthy, fully or mostly ambulatory, middle class, Caucasian adults, living in the Los Angeles county area of California. Though household income data was not included in the demographic information collected, it is expected that this sample is of a higher than average socioeconomic status as a whole when compared to typical Americans of their age group, given the fact that the majority of the sample were homeowners able to afford to live in affluent retirement communities.

Additionally, participants all have ample access to activities, and are perhaps more inclined than is typical of others their age to participate in activities. The participants from the retirement communities have a variety of age-appropriate activities available each day in their community, designed to encourage participation, and the older

adults recruited from the senior center are, by virtue of being found at a senior center, clearly inclined to seek out activities. The act of agreeing to participate in research is a social act with aspects of volunteerism and altruism, and as such the sort of person who is willing to participate in research is a certain type of person, perhaps more inclined overall to seek out novelty and outside activities. All of these indicators suggest that the convenience sample of older adults used in this study will likely be skewed towards seniors who participate in activities and this could leave less time for television watching than less active seniors might have.

Limitations also include the scales used to assess depression, anxiety, loneliness, and life satisfaction. These scales were chosen for their brief length in an attempt to avoid overwhelming participants, as well as for affordability, as this was an unfunded research study. Some highly validated measures that might have proven more sensitive to detecting the variables of interest in this population were rejected due to longer length or high cost. Additionally, the measures used were highly face-valid and often the space limitations of testing areas necessitated participants, who frequently were close friends and neighbors to each other, sit relatively close together, and it is expected that some participants might have felt uncomfortable being completely candid in their answers due to worries about confidentiality.

Finally, as to the lack of significant findings between active and passive viewing types and the overall low incidence of passive viewing reported overall (776.5 hours) in comparison to active viewing (2606.5 hours), it is possible that passive viewing was underreported due to unclear instructions for this ambiguous and unusual concept. Only ten participants endorsed primarily passive viewing, while 89 endorsed primarily active

viewing, and one participant was evenly divided between active and passive viewing. Though it is certainly possible that this is indeed an accurate representation of the active versus passive viewing distribution for this sample, it is also possible that the low rate of passive viewing found in this sample is due to participants not fully comprehending the instructions for differentiating between active and passive viewing and not understanding exactly what constitutes passive viewing. Unfortunately, no normative data regarding the phenomenon of passive viewing in older adults was found in the literature, so it is unclear whether or not this sample was less likely than average to watch television passively or only less likely to *report* this phenomenon. It is possible that there was some shame involved in reporting that the television is on for a significant portion of the day, for example, and this might have led to some underreporting of passive viewing in an attempt to minimize and to reduce overall viewing hours. With no real research base to utilize to make comparisons, this is left to speculation. Since so little passive viewing was logged, comparisons between the active and passive viewing groups were limited in power due to disproportionate between-group size differences and low sample size overall of passive viewers and no significant differences emerged between these groups.

Directions for Future Research

Future studies examining television watching and older adults would be advised to include a wider variety of older adults more typical of the diversity of the senior community in the United States. This would allow comparisons to be made between racial and ethnic groups, as well as by age, ability, and gender. Though no significant findings were determined indicating a difference between men and women, it is possible that other demographic variables could yield significant findings about how television

viewing effects different groups of seniors, such as those of various socioeconomic statuses, seniors who live in more isolated communities that do not include easily accessible age-appropriate programs of activities, and those with various social network sizes or perceived qualities of social networks, as each of these is likely to have some effect on the role television might play in the lives of the older adults. Once a clearer and broader picture emerges about television watching and depression, anxiety, loneliness, and life satisfaction, it is hoped that general recommendations and guidelines could be created to help clinicians and laypersons alike recognize television viewing behaviors that are likely to be "red flags" for mood disorders, loneliness, or diminished life satisfaction as well as advising older adults about the amount of time that constitutes healthy viewing to enrich the experience of aging.

Future research efforts should also focus on type of programming in an effort to determine whether particular patterns of viewing are likely influencing or indicative of, mood disorders and diminished quality of life. Many of the studies on children's television viewing habits demonstrated that content was an important consideration to examine in determining how viewing was impacting the individual (Comer et al., 2008; Scharrer, 2007), it is likely that what older adults watch, too, is at least as salient as how they watch and how much they watch. Without further research, however, one can only presume such an effect exists and it is unclear what recommendations to make regarding programming content.

Research into children's viewing habits has found substantial correlations between amount of viewing, hypertension, and obesity (Pardee, Norman, Lustig, Preud'homme, & Schwimmer, 2007). It has been found that two to four hours of

television watching daily in children correlates positively to obesity, and in turn to hypertension. Despite the fact that hypertension is a much more pervasive and lethal concern in older adults, however, there are no similar guidelines for amount of viewing and health issues in this population.

Clearly more research is necessary before any conclusions or guidelines about viewing can be made. Working towards determining those guidelines seems worthwhile however, as the current generation of older adults has experienced an unprecedented access to television, since unlike prior generations of seniors, television has been a presence in their lives since a young age; additionally, television viewing is an activity with almost no physical requirements that nearly anyone can utilize which makes it an ideal pastime for older adults regardless of ability status or overall energy level; and finally, television viewing is an exceedingly common pastime for Americans which is only growing in popularity with the expansion of available channels, new technologies to make viewing more convenient, and niche stations that are designed to lure viewers to spend more time exploring their interests. Studies have shown that, for older adults, television watching is the single most highly utilized leisure activity, and is second only to sleeping in terms of daily time expenditure (U.S. Bureau of Labor Statistics, 2007).

Implications for Clinical Professional Practice

This study lays the groundwork for beginning to understand the phenomenon of television watching and older adults in regards to depression, anxiety, loneliness, and life satisfaction. It is apparent from these results that life satisfaction is lower when time spent watching is greater so it does not seem inappropriate to conclude that encouraging clients to seek out a wider variety of other activities and not solely rely on television

viewing for entertainment would be a wise recommendation. Also looking at those clients who seem to be spending a majority of their free time watching television as evidencing a "red flag" for depression and diminished life satisfaction might also be prudent. Though this would not be sufficient to draw conclusions, it would be good preliminary information to gather in determining whether further assessment is warranted.

It also seems that clinicians need not discourage older adult clients from watching television altogether. The respondents in this study were overall not depressed, not anxious, not lonely, and were satisfied with their lives, yet they watched a greater amount of television, 4.8 hours daily, than the national average for their age group of 4.3 hours of daily viewing. It does seem likely that some television watching is functional and an appropriate activity for this population and as such should not be discouraged by clinicians unless other factors are present that make it seem advisable to do so. During informational meetings to recruit participants, this researcher was frequently approached by potential participants who wanted to share details of their favorite "must see" programs and who seemed delighted when this researcher was aware of the programs, too. This anecdotally shows how television can function as a touchstone, bringing disparate people together, and in much the same way that close knit communities used to connect people through shared histories and shared knowledge about individuals and families. Television has the potential to create virtual community, and through it, we know the same people and have stories to tell each other about those people that can make us feel socially connected.

Conclusion

The findings herein should provide a solid first step in beginning to examine how television relates to the mental health of older adults. Though many of the hypotheses in this exploratory study were not supported, the one that was does offers important information about the phenomenon being examined. When viewing time increases, life satisfaction decreases. Regardless of the direction of causation, this finding can at least inform a basic idea of how television relates to life satisfaction. Further, the fact that those watching a moderate amount of television and a light amount did not differ from one another suggests that a moderate amount of television does not contribute to diminished life satisfaction, and if the individual is satisfied with the amount of viewing they are engaged in, there seems no reason to encourage them to cut back on their overall viewing.

It is hoped that this and other common leisure pursuits of older adults will continue to be examined. There are many ubiquitous potential influences in the lives of older adults and it appears that many of these have not been thoroughly and directly examined by psychology. It is not enough that communication studies and leisure studies examine these issues, and further, it is not sufficient that a few studies of other populations are generalized to older adults, ostensibly presuming these groups to be commensurate. Psychology is uniquely positioned to ask mental health questions and derive well-considered answers. However, we must ask the right questions, and we must ask about the things that are important to the people we are studying. As such it is worthwhile to examine what effect it might have on those who watch it, and no one is watching more than contemporary older adults. It was for those reasons that this study

was designed, and it is this researcher's greatest hope that it will herald a beginning to a new area of exploration where subsequent studies might begin to illuminate some answers to the questions posed herein.

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APPENDIX A

IRB APPROVAL LETTER

University of La Verne
Institutional Review Board

s
August 22, 2009

TO: Melissa Murren

FR: University of La Verne, Institutional Review Board

RE: Application Number: **#811 - Murren - Television Viewing and Older Adults: The Effects of Active Viewing, Passive Viewing and Amount of Viewing**

The research project, cited above, was reviewed by the College of Arts and Sciences IRB Representative and was subsequently available for comments by the entire IRB. The college review determined that the research activity has minimal risk to human participants, and the application received an expedited review and approval with no additional comments from the entire IRB.

The project may proceed to completion, or until the **date of expiration of IRB approval, August 20, 2010.** Please note the following conditions applied to all IRB submissions:

No new participants may be enrolled beyond the expiration date without IRB approval of an extension.

The IRB expects to receive notification of the completion of this project, or a request for extension within two weeks of the approval expiration date, whichever date comes earlier.

The IRB expects to receive prompt notice of any proposed changes to the protocol, informed consent forms, or participant recruitment materials. No additional participants may be enrolled in the research without approval of the amended items.

The IRB expects to receive prompt notice of any adverse event involving human participants in this research.

All expedited approvals are subject to review by the full IRB. The IRB may rescind expedited approval and proceed to full standard review, if it determines that the protocol did not meet criteria for expedited review.

There are no further conditions placed on this approval.

The IRB wishes to extend to you its best wishes for a successful research endeavor. If you have any questions, please do not hesitate to contact me.

Approval Signature	Fred L. Yaffe, Ph.D. IRB Chairman	August 22, 2009 Date

For the Protection of Human Participants in Research
fyaffe@laverne.edu
(909) 593-3511, ext. 4996

APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

Demographic Questions:

1. Your gender:
   __ Female
   __ Male

2. Your age: _____

3. Your present marital status:
   __ Never married
   __ Widowed
   __ Divorced/Separated
   __ Married

4. How many people live in your household, including yourself?
   __ 1 (self only)
   __ 2
   __ 3
   __ 4 or more

5. With whom do you live?
   __ Spouse or partner
   __ Alone
   __ Other (please describe relationship: _____)

6. Your race/ethnicity:
   __ African American
   __ Asian/Pacific Islander
   __ Caucasian/White, Non-Hispanic
   __ Hispanic/Latino
   __ Other
   __ Biracial/Multi-ethnic

7. How long have you lived in the United States of America?
   Please state number of years: _____

8. Primary language(s) spoken in household:
   _____

9. How would you rate your overall health compared to others your age?
   __ Excellent
   __ Very good
   __ Good
   __ Fair
   __ Poor

10. Do you have any impairments to your ability to walk or move without assistance?
   __ No
   __ Yes (Please describe: _____
   _____
   _____

11. How would you describe your ability to see?
   __ Good to excellent without glasses or contacts
   __ Good to excellent with glasses or contacts
   __ Poor, with or without glasses or contacts

12. If you need glasses or contact lenses to see your television, do you generally wear them?
   __ Yes
   __ No

13. How would you describe your ability to hear?
   __ Good to excellent without hearing aid or other assistive devices
   __ Good to excellent with a hearing aid or other assistive device
   __ Poor, with or without hearing aid or assistive device

14. If you need a hearing aid or other assistive device to hear your television, do you generally wear it when you view?
   __ Yes
   __ No

15. Do you watch television with accommodations such as closed captioning for the hearing impaired?
   __ Yes
   __ No

16. How many television sets are in your home?
   _____

17. Do you receive cable television as well as basic channels?
   __ Yes
   __ No

18. Do you record television and view it later?

__ Often
__ Sometimes
__ Never

19. How often do you choose the programs that you view?
__ Always
__ Sometimes
__ Occasionally
__ Never

20. With whom do you **most often** watch television?
__ Alone
__ With another member of my household
__ With one or more persons who do not live in my home

21. Are you employed?
__ Yes
__ No
a. If yes, approximately how many hours per week? _____

22. Do you do volunteer work?
__ Yes
__ No
a. If yes, approximately how many hours per week? _____

23. Do you have a hobby (such as painting, stamp collecting, or knitting/crocheting)?
__ Yes
__ No
a. If yes, approximately how many hours per week do you spend doing your hobby? _____

24. Do you participate in leisure activities (such as traveling, going to movies, playing cards, or listening to music?
__ Yes
__ No
a. If yes, approximately how many hours per week do you spend on these activities? _____

APPENDIX C

UCLA LONELINESS SCALE

UCLA Loneliness Scale:

Please indicate how often each of the statements below is descriptive of you. Choose one option for each statement:

1. How often do you feel that you lack companionship?
   __ I often feel this way
   __ I sometimes feel this way
   __ I rarely feel this way
   __ I never feel this way

2. How often do you feel that you have a lot in common with the people around you?
   __ I often feel this way
   __ I sometimes feel this way
   __ I rarely feel this way
   __ I never feel this way

3. How often do you feel close to people?
   __ I often feel this way
   __ I sometimes feel this way
   __ I rarely feel this way
   __ I never feel this way

4. How often do you feel left out?
   __ I often feel this way
   __ I sometimes feel this way
   __ I rarely feel this way
   __ I never feel this way

5. How often do you feel that no one really knows you well?
   __ I often feel this way
   __ I sometimes feel this way
   __ I rarely feel this way
   __ I never feel this way

6. How often do you feel isolated from others?
   __ I often feel this way
   __ I sometimes feel this way
   __ I rarely feel this way
   __ I never feel this way

7. How often do you feel that there are people who really understand you?
   __ I often feel this way

__ I sometimes feel this way
__ I rarely feel this way
__ I never feel this way

8. How often do you feel that there are people around you but not with you?
__ I often feel this way
__ I sometimes feel this way
__ I rarely feel this way
__ I never feel this way

9. How often do you feel that there are people you can talk to?
__ I often feel this way
__ I sometimes feel this way
__ I rarely feel this way
__ I never feel this way

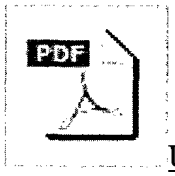
10. How often do you feel that there are people you can turn to?
__ I often feel this way
__ I sometimes feel this way
__ I rarely feel this way
__ I never feel this way

APPENDIX D

PERMISSION TO USE UCLA LONELINESS SCALE

RE: Permission to use UCLA Loneliness Scale, Version 3
Friday, July 17, 2009 8:37 AM
From: "Russell, Daniel W [HD FS]" <drussell@mail.hs.iastate.edu>

To: "Melissa Murren" <mamurren@yahoo.com>
Message contains attachments
1 File (1374KB)

- 

UCLA Loneliness Scale Version 3 Paper.pdf

Melissa:

I apologize for not responding to you previously. There was a problem with the e-mail system here at Iowa State such that some messages (including yours) were routed to "junk mail" and I never saw them.

You have my permission to use the loneliness scale in your research. My only request is that you send me a summary of your findings once you have completed your study. I have attached a paper on the most recent version of the scale that includes a copy of the measure along with scoring instructions.

Good luck with your research.

Dan

Daniel W. Russell, Ph.D.
Professor, Institute for Social and Behavioral Research
& Human Development and Family Studies
Iowa State University
2625 N. Loop Drive, Suite 500
Ames, IA 50010-8296
(515) 294-7081
Fax: (515) 294-3613

APPENDIX E

HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS)

HADS Scale:

Please choose one response from the four given for each item. Please give your immediate response and don't think too long about any item. You are being asked to describe your *current feelings*.

1. I feel tense or 'wound up':
   - __ Most of the time
   - __ A lot of the time
   - __ From time to time, occasionally
   - __ Not at all

2. I still enjoy the things I used to enjoy:
   - __ Definitely as much
   - __ Not quite so much
   - __ Only a little
   - __ Hardly at all

3. I get a sort of frightened feeling as if something awful is about to happen:
   - __ Very definitely and quite badly
   - __ Yes, but not too badly
   - __ A little, but it doesn't worry me
   - __ Not at all

4. I can laugh and see the funny side of things:
   - __ As much as I always could
   - __ Not quite so much now
   - __ Definitely not so much now
   - __ Not at all

5. Worrying thoughts go through my mind:
   - __ A great deal of the time
   - __ A lot of the time
   - __ From time to time, but not too often
   - __ Only occasionally

6. I feel cheerful:
   - __ Not at all
   - __ Not often
   - __ Sometimes
   - __ Most of the time

7. I can sit at ease and feel relaxed:
   __ Definitely
   __ Usually
   __ Not often
   __ Not at all

8. I feel as if I am slowed down:
   __ Nearly all the time
   __ Very often
   __ Sometimes
   __ Not at all

9. I get a sort of frightened feeling like 'butterflies' in the stomach:
   __ Not at all
   __ Occasionally
   __ Quite often
   __ Very often

10. I have lost interest in my appearance:
   __ Definitely
   __ I don't take as much care as I should
   __ I may not take quite as much care
   __ I take just as much care as ever

11. I feel restless as I have to be on the move:
   __ Very much indeed
   __ Quite a lot
   __ Not very much
   __ Not at all

12. I look forward with enjoyment to things:
   __ As much as I ever did
   __ Rather less than I used to
   __ Definitely less than I used to
   __ Hardly at all

13. I get sudden feelings of panic:
   __ Very often indeed
   __ Quite often
   __ Not very often
   __ Not at all

14. I can enjoy a good book or radio or TV program:
    __ Often
    __ Sometimes
    __ Not often
    __ Very seldom

APPENDIX F

PERMISSION TO USE HOSPITAL ANXIETY AND DEPRESSION SCALE

USER AGREEMENT

Existing translations

Hospital Depression and Anxiety Scale (HADS)

Date : !_0_!_7_!!_0_!_3_! !_0_!_9_!

day month year

1. USER'S NAME

Name : **Melissa Aimee Murren, MS**

Title : Doctoral Student

Company : :University of La Verne

Address : 1950 Third Street, La Verne, CA 91750

.....

Country : Uniited States of America.....

Phone : (818) 517-5791 Fax :None

Email : mamurren@yahoo.com

2. CONTEXT OF HADS USE

1. **Individual clinical practice** ☐

- Expected duration of use: Indefinite ☐ or Number of years _____

2. **Research study** X☐

Title: Television Watching Behaviors in Older Adults and Anxiety, Depression, Loneliness, and Life Satisfaction: An Exploratory Study

- **Disease or disorder**:____None_____
- **Type of research**: clinical trial ☐1 economic ☐2 quality of life ☐3 epidemiologic ☐4

- **Quality of Life as primary end point**: yes ☐1 no ☐2
- **Design:**
  - comparative - parallel group ☐1
  - comparative - cross-over ☐2
  - non comparative with follow-up or cohort follow-up ☐3
  - cross-sectional ☐4
  - Other (*please specify)* **Exploratory study, no comparison group** ☐5
- **Number of expected patients (total):** 100
- **Number of administrations of the questionnaire per patient:** 1
- **Length of the follow-up (if any) for each patient:** ____ months
- **Planned study date:** *start* 07 | 09 (month/year) *end* 03 | 10 (month/year)

3. STUDY FINANCING *(tick the appropriate box)*

Not funded academic research, individual medical practice ☒
Projects not explicitly funded, but funding comes from overall departmental funds or from the University or individual funds.

Funded academic research ☐
Projects receiving funding from commerce, government, EU or registered charity.
Funded academic research– sponsored by industry fits the "commercial study" category.

Commercial study ☐
Industry, CRO, any for-profit companies

Granting / Sponsoring from (if any) *(name of the governmental/foundation/company or other funding/sponsoring source):* Not funded/doctoral research

4. TRANSLATIONS

Please indicate in which language(s) and for which country(ies) the **HADS** is needed:

Language:	***For use in the***	***Language:***	***For use in the***	***Language:***	***For use in the***

	following country		*following country*		*following country*
e.g. English	*USA*	English	USA		
e.g. Spanish	*USA*				

The HADS translation(s) may not be available in the country required.

Please check availability of translations with Mapi Research Trust.

If not available in the language(s) required, a Linguistic Validation must be undergone.

On behalf of GL Assessment, Mapi Research Trust grants "User" the right to use and reproduce the HADS form listed in section 3, in the countries listed in section 5 subject to the following terms, conditions, and only upon signature of this agreement by the user:

1. "User"' s Obligations

1.1 Registration and Licensing with GL Assessment

User shall provide Mapi Research Trust with evidence or copy of his/her registration with GL Assessment for the use of HADS in the above-mentioned study.

1.2 No modification

"User" shall not modify, abridge, condense, adapt, recast or transform HADS in any manner or form, including but not limited to any minor or significant change in wordings or organisation in HADS without the prior written agreement of GL Assessment, copyright holder of HADS.

1.3 No translation

"User" shall not translate HADS without the prior written agreement of the Mapi Research Trust. Any new translation shall be coordinated by the Linguistic Validation Department of the Mapi Research Institute.

Academic translation is permitted after signature of a translation agreement with Mapi Research Trust.

1.4 No reproduction

The User may reproduce HADS up to the total number of copies specified in GL Assessment agreement. "User" shall in no event distribute copies of HADS to third parties that are outside the scope of the defined study by sale, rental, lease, lending, or any others means

1.5 Publication

In case of any kind of publication or presentation mentioning use of the HADS:

- "User" shall cite the main publication reference(s) about the HADS in reference section of his/her paper/presentation:
  - White D, Leach C, Sims R, Atkinson M, Cottrell D. Validation of the Hospital Anxiety and Depression Scale for use with adolescents. Br J Psychiatry. 1999 Nov;175:452-4
  - Herrmann C. International experiences with the Hospital Anxiety and Depression Scale - a review of validation data and clinical results. Journal of Psychosomatic Research 1997;42(1):17-41
  - Snaith RP. The Hospital Anxiety and Depression (HADS) scale. Quality of Life Newsletter 1993;6:5-5
  - Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. Acta Psychiatr Scand 1983;67:361-370
- "User" shall place the following copyright information:
  - This form may only be reproduced for use within the purchasing institution only within the terms stated in the permission agreement from the publisher. HADS copyright © R.P. Snaith and A.S. Zigmond, 1983, 1992, 1994. Record form items originally published in Acta Psychiatrica Scandinavica, 67, 361–70, copyright © Munksgaard International Publishers Ltd, Copenhagen, 1983.
  - Published by GL Assessment Limited, The Chiswick Centre, 414 Chiswick High Road, London W4 5TF, UK. All rights reserved. GL Assessment is part of the Granada Learning Group.

1.6 Provision of data.

All data, results and reports obtained by, or prepared in connection with HADS shall remain the User's property.

2. Payment

2.1. Processing fees (the Mapi Research Trust)

- The use of **HADS in commercial studies involving "for-profit" organizations** is subject to a distribution fee payable to The Mapi Research Trust, of an amount of 500 (five hundred) Euro per study plus an additional 150 (one hundred and fifty) Euro per language version requested.
- The use of the **HADS in funded academic research** is subject to a distribution fee payable to The Mapi Research Trust, of an amount of 300 (three hundred) Euro per study plus an additional 50 (fifty) Euro per language version requested.
- The use of the **HADS in not-funded academic research or clinical practice** is free.

2.2. Invoicing

As soon as execution of this agreement, the Mapi Research Trust shall promptly provide "User" with a definitive invoice, and "User" shall pay such an invoice on reception.

3. Copyright infringement

It is understood that GL Assessment, the copyright holder of the HADS, holds the copyright of the HADS and all its translations past, on-going and future.

If, at any time during the term of this agreement, « User » learns of any infringement by a third party of any Intellectual Property Rights in connection with the HADS « User » shall promptly notify the Mapi Research Trust. The Mapi Research Trust shall notify such infringement to GL Assessment. GL Assessment will decide whether to institute proceedings against the infringing party.

4. Confidentiality

All and any information related to HADS including but not limited to the following: information concerning clinical investigations, creations, systems, materials, software, data and know-how, translations, improvements ideas, specifications, documents, records, notebooks, drawings, and any repositories or representation of such information, whether oral or in writing or software stored, are herein referred to as confidential information.

In consideration of the disclosure of any such confidential information to the other, each party agrees to hold such confidential information in confidence and not divulge it, in whole or in part, to any third party except for the purpose specified in this agreement.

5. Use of name

It is agreed that the Mapi Research Trust shall not disclose, whether by the public press or otherwise, the name of **"User's [Company] name"**, to any third party to this agreement except to GL Assessment, the copyright owners of the HADS.

6. Copy to the copyright owners

It is understood that a copy of this User Agreement may be provided to GL Assessment.

7. Liability

7.1 <u>In case of breach of contract</u>

In the event of total or partial breach by the Mapi Research Trust of any of its obligations hereunder, the Mapi Research Trust's liability shall be limited to the direct loss or damage (excluding loss of profit and operating losses) suffered by "User" as a result of such breach and shall not include any other damages and particular consequential damages.

7.2 **In the scope of the use of the "Questionnaire"**

Under no circumstances may GL Assessment or the Mapi Research Trust be held liable for direct or consequential damage resulting from the use of the original instrument and/or its translations.

7.3 **In the event of non-renewal of this Agreement**

In the event of non-renewal of this Agreement by The Mapi Research Trust for any cause or failure by The Mapi Research Trust to conclude a new agreement with "User" upon the expiry of this Agreement, The Mapi Research Trust will have no liability for payment of any damages and/or indemnity to "User".

8. Term and termination

This agreement shall be effective as the date of its signature by User and shall continue until the term of the study above mentioned in "Context of HADS use".

Either party may terminate this Agreement immediately upon providing written notice to the other party in the event of: (a) the other party's unexcused failure to fulfil any of its material obligations under this Agreement or (b) upon the insolvency or bankruptcy of, or the filing of a petition in bankruptcy or similar arrangement by the other party.

Upon expiration or termination of this Agreement The Mapi Research Trust may retain in its possession confidential information it acquired from HADS while under contract.

9. Assignment

This Agreement and any of the rights and obligations of "User" are specific to the "User" and cannot be assigned or transferred by "User" to any third party or by operation of law, except with the written consent of The Mapi Research Trust notified to "User".

10. Separate Agreement

This Agreement holds for the above-mentioned study only. The use of HADS in any additional study of the "User" will require a separate agreement.

11. Entire Agreement, Modification, Enforceability

The entire agreement hereto is contained herein and this Agreement cancels and supersedes all prior agreements, oral or written, between the parties hereto with the respect to the subject matter hereto.

This Agreement or any of its terms may not be changed or amended except by written document and the failure by either party hereto to enforce any or all of the provision(s) of this Agreement shall not be deemed a waiver or an amendment of the same and shall not prevent future enforcement thereof.

If any one or more of the provisions or clauses of this Agreement are adjudged by a court to be invalid or unenforceable, this shall in no way prejudice or affect the binding nature of this Agreement as a whole, or the validity or enforceability of each/and every other provision of this Agreement.

12. Governing law

This Agreement shall be governed by and construed in accordance with the laws of France.

13. Forum

(c) If the Licensee is declared insolvent or bankrupt or goes into liquidation (other than voluntary liquidation for the purpose of reconstruction only) or if a Receiver is appointed

Termination shall be without prejudice to any monies which may be due to the Publishers from the Licensee at that or any subsequent time and without prejudice to any claim which the Publishers may have for damages and/or otherwise

Upon termination of this Agreement for any reason the Licensee shall immediately cease to use the Material

15 This Agreement constitutes the entire agreement between the parties in respect of the Translated Material and supersedes all prior oral or written proposals, agreements or undertakings concerning the same

16 This Agreement shall not be amended or modified in any way other than by an agreement in writing and signed by both parties or their duly authorised representatives and shall come into effect on receipt of the payment in full as specified above and a countersigned copy of this Agreement

17 This Agreement shall be governed by and construed in all respects in accordance with English Law

AS WITNESS THE HANDS OF THE PARTIES
hereto the day and year first above written

Signed on behalf of GL Assessment Limited ..... 8th July 2009

Signed by the Licensee ..... *Please print this page, sign, and attach this signature page as a scanned document along with your typed user Agreement form sent as a Word doc*

User's Signature (handwritten):	Company/Organisation Stamp (if applicable):
MS	
Title Ms.	
Company/Organisation Student, University of La Verne, CA, USA	
Date July 8, 2009	

APPENDIX G

LIFE SATISFACTION INDEX – Z (LSI-Z)

LSI-Z Scale

Here are some statements about life in general that people feel differently about. Please read each statement on the list and indicate whether you AGREE, DISAGREE, or are UNCERTAIN (unsure one way or another). Please answer all questions in the list.

1. As I grow older, things seem better than I thought they would be.
   __ Agree
   __ Disagree
   __ Uncertain

2. I have gotten more of the breaks in life than most of the people I know.
   __ Agree
   __ Disagree
   __ Uncertain

3. This is the dreariest time of my life.
   __ Agree
   __ Disagree
   __ Uncertain

4. I am just as happy as when I was younger.
   __ Agree
   __ Disagree
   __ Uncertain

5. These are the best years of my life.
   __ Agree
   __ Disagree
   __ Uncertain

6. Most of the things I do are boring or monotonous.
   __ Agree
   __ Disagree
   __ Uncertain

7. The things I do are as interesting to me as they ever were.
   __ Agree
   __ Disagree
   __ Uncertain

8. As I look back on my life, I am fairly well satisfied.
   __ Agree
   __ Disagree
   __ Uncertain

9. I have made plans for things I'll be doing a month or a year from now.
   __ Agree
   __ Disagree
   __ Uncertain

10. When I think back over my life, I didn't get most of the important things I wanted.
   __ Agree
   __ Disagree
   __ Uncertain

11. Compared to other people, I get down in the dumps too often.
   __ Agree
   __ Disagree
   __ Uncertain

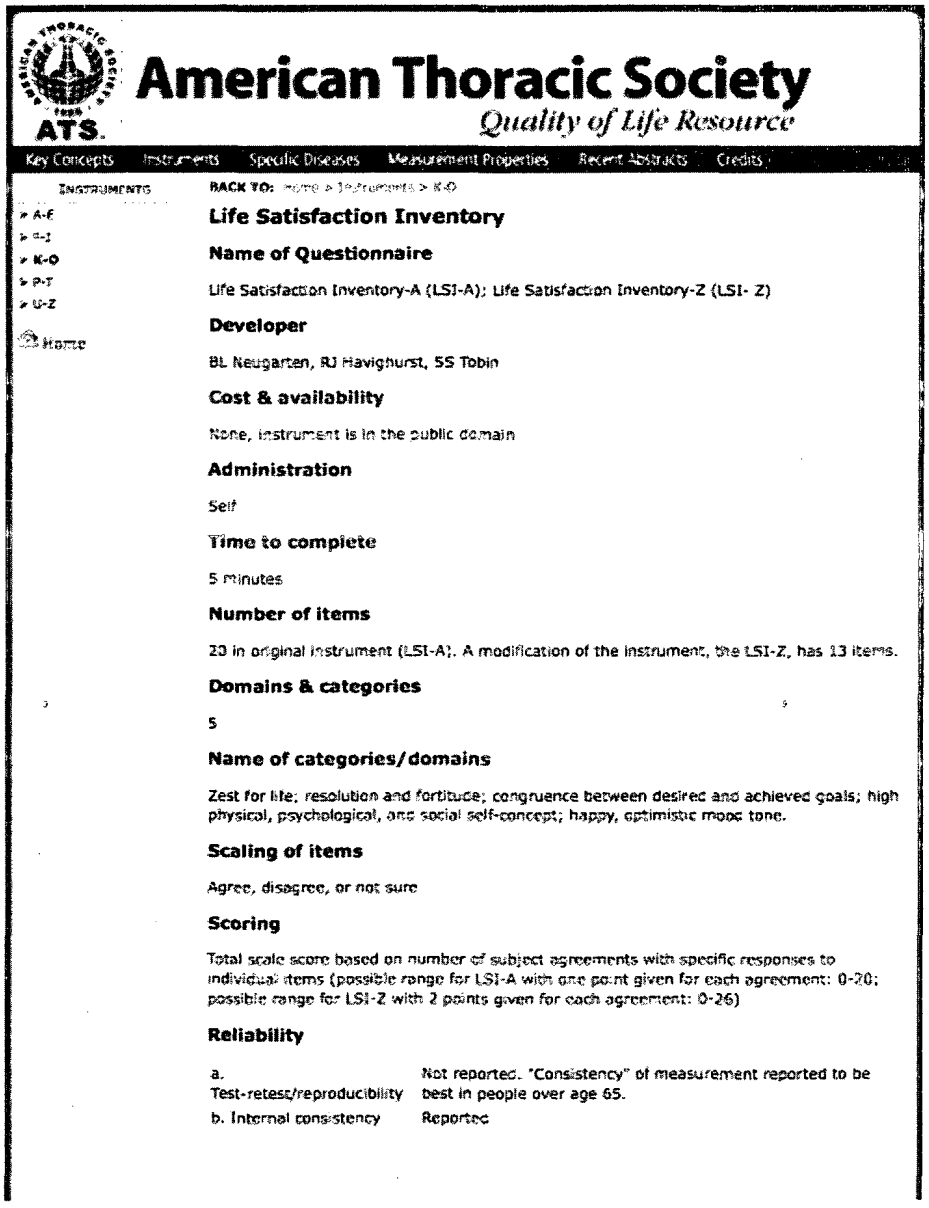
12. I've gotten pretty much what I expected out of life.
   __ Agree
   __ Disagree
   __ Uncertain

13. In spite of what people say, the lot of the average person is getting worse, not better.
   __ Agree
   __ Disagree
   __ Uncertain

APPENDIX H

PERMISSION TO USE LIFE SATISFACTION INDEX – Z (LSI-Z)

(Instrument is in the public domain)



American Thoracic Society

Quality of Life Resource

Key Concepts | Instruments | Specific Diseases | Measurement Properties | Recent Abstracts | Credits

INSTRUMENTS

- A-E
- F-J
- K-O
- P-T
- U-Z

Home

BACK TO: Home > Instruments > K-O

Life Satisfaction Inventory

Name of Questionnaire

Life Satisfaction Inventory-A (LSI-A); Life Satisfaction Inventory-Z (LSI- Z)

Developer

BL Neugarten, RJ Havighurst, SS Tobin

Cost & availability

None, instrument is in the public domain

Administration

Self

Time to complete

5 minutes

Number of items

20 in original instrument (LSI-A). A modification of the instrument, the LSI-Z, has 13 items.

Domains & categories

5

Name of categories/domains

Zest for life; resolution and fortitude; congruence between desired and achieved goals; high physical, psychological, and social self-concept; happy, optimistic mood tone.

Scaling of items

Agree, disagree, or not sure

Scoring

Total scale score based on number of subject agreements with specific responses to individual items (possible range for LSI-A with one point given for each agreement: 0-20; possible range for LSI-Z with 2 points given for each agreement: 0-26)

Reliability

a. Test-retest/reproducibility	Not reported. "Consistency" of measurement reported to be best in people over age 65.
b. Internal consistency	Reported