

ABSTRACT

FACTORS THAT INFLUENCE USE OF SOCIAL MEDIA AMONG OLDER
ADULTS

By

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The use of social media by older adults is on the rise. Social media allows older adults to keep meaningful connections with friends, family, and life. Social media allows older adults to stay connected through prevailing frailty, geographical displacement, and morbidity. The purpose of this study was to evaluate the effect of use or non-use of social media on social-connectivity/loneliness and depression, and the effect of demographic variables including sex, age, income, and educational level on the use of social media. There were a total of 67 participants in the study. The data revealed that income was a significant factor in the use of social media. Moreover, lower income participants used social media significantly less than the upper and middle income level participants. This study was created to specifically look at participant's use/non-use of social media and therein introduced specific factors that could have possibly varied when compared.

FACTORS THAT INFLUENCE USE OF SOCIAL MEDIA AMONG OLDER
ADULTS

THESIS

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CHAPTER 1

INTRODUCTION

The ability to age well strongly integrates biopsychosocial aspects of an individual within the context of his or her environment. Socialization and connectivity are significant elements of aging well and there are many theories of aging that address the importance of healthy psychosocial aging and the importance of staying connected with life, which consist of maintaining relationships with peers and family. However, many older adults live alone or are in environments that do not provide opportunities for socialization. The use of social media provides an opportunity for older adults to engage in meaningful social contact (Leist, 2013).

Wright (2000) explained that social inclusion and well-being is increased through the use of social media, which may lead to lower life stress and greater life satisfaction. There have been many advances in medical and living conditions that are allowing people to live longer, resulting in an increase in the older adult population. However, living longer and an increasing population of older adults do not guarantee that older adults will have a strong social support network in later life. A growing trend of family members living apart from each other produces a void for many older adults. Moreover, if older adults live far from community centers, no longer drive, and/or have physical or cognitive limitations they have limited opportunities for social interaction. Thus, Nimrod (2009) alluded to the significance of using social media and social networking for older adults. The significance of social networking may provide enhanced interactions and

more opportunities to create new relationships. The significance of social networking has proven to provide enhanced interactions and more opportunities to create new relationships. Although the rising use of the internet/social media by older adults is apparent, some older adults tend to use it more often than others or not at all (Zickhur & Madden, 2012).

Background of the Problem

Along with an increased population of older adults there is the reality that many face frailty, morbidity, depression, and loneliness, which can result in a lack of social connection to others or loneliness.

“Many older adults are at the risk of social isolation; they may lose important components of their social environment through retirement and have diminished contact with relatives and friends because of illness or geographical location” (Sum, Mathews, Hughes, & Campbell, 2008, p. 208). The use of social media can provide a means to keep in touch with family members and friends. Although there is skepticism about how well social media can provide a true relationship, there are many important, positive, social effects from its use (Sum et. al., 2008). Sum and colleagues (2008) explained that notable positive effects included a reduction in loneliness, in essence, related to increased social connectivity. Moreover, social media may provide an entirety of well-being for older adults; a reduction in physical difficulties, depression, and feelings of loneliness, improved life satisfaction, sense of control, and quality of life (Shapira, Barak, & Gal, 2007). During the year 2000, there was a large internet boom, which is still increasing to the present day. Moreover, “for the first time, half of adults ages 65 and older are online” (Zickhur & Madden, 2012, p. 2). Yet, there are very prominent psychological barriers

associated with the use of social media by many older adults. Specifically, there are the perceived concerns about its usefulness, ease, efficacy, and complexity (Adams, Stubbs, & Woods, 2005).

Statement of the Problem

The effectiveness of social media to aid in the well-being of older adults is significant in the sense that social media has positive effects when utilized correctly. However, older adults may not use it correctly or use it at all. The effect of use or non-use of social media must be evaluated on social connectivity/loneliness, and depression; and the effect of demographic variables including sex, age, income, and educational level on the use of social media must be evaluated. Because many older adults have an increased risk for a lack of social connectivity, as well as loneliness and depression due to a loss of companionship, family, friends, environment changes, and/or physical ailments, social media can provide a means to aging well. Furthermore, many of the scholarly reviewed articles/studies only examine internet use and its effects on older adults; they do not investigate the effect of use or non-use of social media on psychosocial factors and demographics that possibly can or cannot lead an older adult to use social media.

Purpose Statement

The purpose of this study was to evaluate the effect of use or non-use of social media on social connectivity/loneliness and depression, and the effect of demographic variables including sex, age, income, and educational level on the use of social media.

Hypotheses

The study tested the following hypotheses:

H₀1: There is no significant difference in social connectivity/loneliness score in a sample of older adults related to use or non-use of social media.

H₀2: There is no significant difference in depression score in a sample of older adults related to use or non-use of social media.

H₀3: There is no significant difference in sex in a sample of older adults related to use or non-use of social media.

H₀4: There is no significant difference in age in a sample of older adults related to use or non-use of social media.

H₀5: There is no significant difference in income in a sample of older adults related to use or non-use of social media.

H₀6: There is no significant difference in education level in a sample of older adults related to use or non-use of social media.

Significance

Gerontology seeks to provide and promote knowledge about healthy aging as a means of proactive rather than reactive aging. Ultimately, the idea is to prevent rather than treat, but gerontology still incorporates the mind-set of treating and managing illness. It is well known that the psychosocial aspect of aging is important to aging well (Moody & Sasser, 2011). Social media can have positive effects on the psychosocial well-being of older adults (Nimrod, 2009), and the reasons why some older adults use social media and some do not should be looked at in further detail. Specifically, by understanding social media as a means of social connectivity, and thus, a protective

factor against loneliness and depression, gerontologists can better assist older adults in the use of social media.

Definitions of Terms

Depression: Characteristic of a disorder that causes clinically significant distress or impairment in social, occupational, or other important areas. Symptoms may include depressed moods, diminished interest in activities, significant weight loss, insomnia or hypersomnia, fatigue or loss of energy, feeling of worthlessness/guilt, diminished ability to think, psychomotor agitation or retardation, and recurrent thoughts of death. The symptoms must not be caused by medication, and a person must exhibit at least five of the symptoms daily for two weeks to be clinically depressed. The depression range may vary in severity (American Psychiatric Association, 2013). In this study depression was measured by The Geriatric Depression Scale: Short Form (Greenberg, 2007).

Loneliness: Components of loneliness are: (a) constant emotional and social isolation from personal relationships, (b) subjectivity of the person feeling lonely—people can be/feel alone when around others; (c) loneliness is aversive (Perlman & Peplau, 1984). In this study loneliness was measured by the UCLA Loneliness Scale (Version 3; Russell, 1996).

Social connectivity: The means in which one socializes and feels connected to others emotionally will be measured by the UCLA Loneliness Scale (Version 3; Russell, 1996).

Older Adult: Age 50 and above.

Social Media: A type of online media which consist of collective online communication and conversation. It allows for the participation in the development of

that communication and/or conversation's information or content; whereas, traditional media delivers information but does not allow for the participation in the development of the information or content. Social media platforms that the research will include are: forums, microblogging (Twitter), Tumblr, Instagram, email, texting, Facebook, LinkedIn, and Myspace.

Delimitations

This study was limited by sample size, instrumentation, and the lack of ability to generalize. The sample size was limited to older adults in Southern California based on convenience sampling. Therefore, the data may not reflect on any older adults out of the region. The sample size was not large enough to allow for diversity within the context of influencing factors. The survey was only presented in one language, English, and the access to it was via hardcopy. Moreover, the data was collected through convenience sampling which also effected generalization.

Assumptions

This study was conducted under the following assumptions: the older adults who participate in the survey understood and answered all questions truthfully; the instruments that are used have validity and reliability.

CHAPTER 2

REVIEW OF LITERATURE

The purpose of this study was to evaluate the effect of use or non-use of social media on social connectivity/loneliness and depression, and the effect of demographic variables including sex, age, income, and educational level on the use of social media. This chapter will discuss the research found on use or non-use of social media by older adults, social connectivity/loneliness, depression, and specific demographics related to this topic.

This review of literature will begin by providing background on the social theories of aging, the internet boom, social support of older adults, and therefore, will setup the frame work for study about the use of social media by older adults.

Social Theories of Aging

Disengagement Theory

The first time that a distinct theory of aging emerged in scientific form was in 1961. The Disengagement Theory set in motion the developmental stage for other theoretical theories and challenges to emerge (Lynott & Lynott, 2013). Disengagement is described as a normal part of aging that involves a natural and unavoidable withdrawal or disengagement. Disengagement results in decreased interaction between the aging person and others in the social system (Quadagno, 2011). Shock (1963) explained that withdrawal is an active means by the aging person, in which a person is a participant in

their own disengagement. Although withdrawal can happen due to a person's own will, it may also be initiated by others or society (Shock, 1963).

As noted by Shock (1963), the overall conclusion of the Disengagement Theory stems from data collected from the Kansas City Study of Adult Life. The sample consisted of physically healthy adults free from major economic worries living in urban areas of Kansas City. The study consisted of five in-depth interviews with each interviewee. The interviews were repeated every 6 months on 100 men and 100 women. The age ranges of the subjects were 50 to 70 years.

The theory is based upon the concept of disengagement, but the indices are derived from ratings, inferences, and estimates collected from the interviews, which related to the subjects level of social engagement. The indices were: Role Count, Interaction Index, Life Space, Perceived Life Space, Alienation, F-score, and Ego Energy. Role Count was the total number of subjects participating in the survey. The Interaction Index was a rating that consisted of the amount of each day the subject spent in-which their behaviors were normatively controlled. Life Space was a score based on frequency of contacts the subject made with other people. The other indices were based on projective methods, which included Draw-a-Person Test.

Hochschild (1975) critiqued the Disengagement Theory developed by Cummings and Henry because she believed that they did not answer the question they posed—how is age related to engagement in social life? Hochschild stated there are three problems with the theory. First, it is unfalsifiable, the major variables are composed of sub-parts that do not vary in a unitary way, and they ignored the meaning actors attribute to what action they do and do not take. Furthermore Hochschild stated that “Disengagement is seen as a

variable process, not as a constant which varies only in form and timing; thus the major thesis is/should be falsifiable” (p.567), which creates a contradiction between the theory’s unfalsifiability and its actual falsifiability.

Activity Theory

Quadagno (2011) stated that Havighurst, one of the associates on the Kansas City study of Adult Life, disagreed with the Disengagement Theory. Havighurst, Bernice, and Sheldon (1968) argued that it was not normal or natural for older people to become isolated and withdrawn. Quadagno stated that older adults’ social and psychological needs are no different from those of middle-age. Furthermore, when older adults do become isolated and withdrawn it is due to events beyond their control (Quadagno, 2011). “According to Activity Theory people give up any roles as they age—they retire, become widows or widowers, [and/or] drop out of professional and other organizations” (Hampton & Russell, 2005, para. 1). It is up to older adults to optimally manage their social world by finding substitutes for the lost roles (Quadagno, 2011). The Activity Theory has been tested by research developed specifically for that purpose, and the research has demonstrated that activity is beneficial as people age (Hampton & Russell, 2005). The General Social Survey showed that there was a much higher level of happiness among those who were most active at all stages of life. Moreover, the activities must be seen as quality activities or they could have negative effects (Hampton & Russell, 2005).

Successful Aging

To succeed in creating increased social connections for older adults, the idea of Successful Aging must be examined. Successful Aging adheres to optimal physical,

psychological, and social possibilities for older adults; therefore, aging requires prevailing cultural and societal participation (Baker, Bricout, Moon, Coughlan, & Pater, 2012). Rowe and Kahn (1998) defined Successful Aging as the ability to maintain three characteristics: low risk of disease and disease related disability, high mental and physical function, and active engagement with life. Because there is a ranking order, each factor is only independent to some point. Being healthy physically allows one to maintain a healthy mental balance, which, in turn, enables active engagement with life, but the latter is not guaranteed (Rowe & Kahn, 1998). Rowe and Kahn use examples such as Stephen Hawking's attitude and achievements in life with his constant ailment of amyotrophic lateral sclerosis. Rowe and Kahn explained that it is possible to age successfully with ailments, but Successful Aging is best represented by the combination of all three characteristics.

Relating to others is a key sub-area to Successful Aging because being a part of a social network that consist of relatives and friends is one of the most dependable predictors of longevity (Rowe & Khan, 1998). Knight and Ricciardelli (2003) conducted a study on Successful Aging and the perceptions that older adults have of it. The main goals pulled from the study were:

1. Describe what older adults think of Successful Aging and the possible reasons;
2. Describe what older adults believe about the meaning of old and how they feel about their current situation; and
3. Establish whether there is a difference between the old and the oldest-old with regards of Successful Aging.

The study had 60 participants (18 males, 42 females) with an age range of 70 years to 101 years. Participants were either living at home alone or with a spouse; 18.33% and 26.67% respectively. Others lived in a retirement village or in a residential care facility; 33.3% and 21.67% respectively. The participants were not diagnosed with any mental ailments such as dementia and the physical capabilities varied from total independence to near total care requirements.

Major themes Knight and Ricciardelli (2003) noted about older adults perceptions about Successful Aging were: health (23.17%), happiness (13.41%), relationships (10.36%), value of life (6.7%), activity (18.9%), longevity (1.22%), independence (10.36%), and personal growth (15.85%). Major themes older adults had about their age/current situation were: not an issue (12.5%), happy (35.71%), unhappy (10.71%), and accepting (41.07%). The comparison between old (70 years) and oldest-olds' (101 years) themes of Successful Aging were health, activity, personal growth, and happiness. A chi-square with Yates correction was used to examine the differences, but there were no significant differences.

Productive Aging

Productive Aging assumes an older adult is being engaged in Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL). Bass, Caro, and Chen (1993) define Productive Aging as not unlike Successful Aging, but it reflects the role an older adult can play in society. Although productivity is one form of aging-well, the importance of the productivity is the activity that is being conducted. Greater productivity coincides with Successful Aging i.e. volunteering, social networking, and social gatherings (Moody & Sasser, 2011). The Louis Harris and Associates and the

Commonwealth Fund conducted a survey that asked 3,000 adults over the age of 55 about their productivity (Bass, Caro, & Chen, 1993). The survey showed 27% working, 26% volunteering, 42% care-giving (children/grandchildren), and 29% care-giving to sick/disabled (Bass et al., 1993). Research by Ferguson, Goodwin, and others has demonstrated that life-long productivity, activities, training, and positive support groups can increase the well-being of a person (as cited in Baker et al., 2012, para. 11). Baker et al. (2012) used LinkedIn and Facebook to search for specific groups such as older adults; the data collected in the study was descriptive and showed that 32% of LinkedIn members were over the age of 50 and 12% of the members on Facebook were over the age of 50. There were no conclusive findings on productive aging through the use of social media due to the studies descriptive nature. Although the study was descriptive, Baker et al. (2012) noted the difference in age population percentages between platforms and the general increase of use by older adults.

Isolation and Depression

Among the very old, loneliness is common. A study by Dean (1962) found similar levels of loneliness among adults aged 50 to 79, but there was a sharp increase in loneliness among those aged 80 and above. In the study 26% of the 50 to 59 age bracket said they felt lonely “sometimes” or often”; the 60 to 69 age bracket revealed 35% felt lonely “sometimes” or “more often”; the 70 to 79 age bracket revealed 29% felt lonely “sometimes” or “more often”; and the 80-plus revealed 53% felt lonely “sometimes” or “more often.”

Mirowsky and Ross (1992) studied the relationship between age and depression. There is a drop-off in depression in early adult-hood and an increase in later life, but the

rise in depression “mostly reflects life-cycle gains and losses in marriage, employment, and economic well-being” (Mirowsky & Ross, 1992, p. 187). Furthermore, Mirowsky and Ross explained that depression increased in the oldest-old due to physical dysfunction and personal losses.

The data of the study came from two telephone surveys of English-speaking adults. There were a total of 2,031 respondents with an age range from 18 to 90, in the first survey entitled The 1990 U.S Survey of Work, Family, and Well-Being by Mirowsky. The second survey, The 1985 Illinois Survey of Well-Being by Mirowsky, had a total of 908 respondents with an age range of 18 to 85. The surveys measured depression through the Center for Epidemiological studies Depression Scale (CES-D). The reliability of the test was .83 in the U.S. data and .76 in the Illinois data. The results of the regression data showed that depression was lowest among 30 to 59 year olds, but depression was increased in younger and older groups. The study showed that sex played a factor in depression. Females were more depressed than males but survived longer. Using a regression equation, Mirowsky and Ross (1992) noted sex only played a small part in the curve (.03% in the U.S. and 7.5% in Illinois data).

The Internet Boom

Fox’s reported trends in internet use discovered through his research were: “In 1996, just 2% of Americans age 65 and older went online, but this increased to 15% in 2000 and 22%, or 8 million people in 2004” (as cited in Gatto & Tak, 2008, para. 1). Zickhur and Madden (2012) collected data from the Princeton Survey Research Associates using phone interviews to investigate American’s use of the internet. There were 2,254 adults 18 years of age and older. Zickhur and Madden found that 53% of

older Americans used the internet or email. Moreover, 70% of older adults use the internet on a typical day. The study showed older adults were one of the fastest growing groups to use the internet. The number of older adults in the age group of 50 to 64 used the internet more often, 8 in 10 (77%), as compared to those older adults in the age group of 65 years of age and older, 53% (Zickhur & Madden, 2012).

Adams, Stubbs, and Woods (2005) conducted a study on internet use, which included 23 subjects with an age range from 55 to 75 years old. They used purposive sampling to recruit subjects through word of mouth, friend of friends, and from computer courses. The study required a method of one-to-one interviews, which utilized a semi structured-questionnaire. The content of the questions were: Issues of Experience, Perceived Use, Perceived Ease of Use, Efficacy, Perceived Complexity, and Perceived Environment, which would allow Adams and his colleagues to examine psychological barriers of internet use.

The study revealed that the main reason older adults chose to learn to use the internet was the desire to stay connected; the desire was held by 30% of the study participants. Moreover, 26% of the participants used the internet for work/maintaining contact with friends and family. Social relations were an important part of the study. Furthermore, Adams, et al. (2005) explained that taking part in the internet age is important for older adults to have total immersion in social interaction.

Demographics

Zickhur and Madden (2011) examined adults' use of social networking sites through sex, age, income, and educational level. They had a sample of 2227 adults 18 and older. The data was obtained through telephone surveys conducted both in English

and Spanish. Zickhur and Madden (2011) noted that women tended to use social networking sites more than men. Out of the age group of 50 to 64, 51% used social networking sites. The age group 65 and older had 33% that used social networking sites. There were no significant differences found in the use of social networking sites based on household income and education level (Zickhur & Madden, 2011). Household income held categories of less than \$30,000, \$30,000 to \$49,000, \$50,000 to \$74,000, and \$75,000+ (Zickhur & Madden, 2011). Respectively, the household income percentages were 68, 70, 63, and 68; all based on percent of internet users within each group who use social networking sites (Zickhur & Madden, 2011). The educational level categories were less than high school, high school graduate, some college, and post-college education. Respectively, the educational level percentages were 68, 61, 65, and 67; all based on the percent of internet users within each group who use social networking sites (Zickhur & Madden, 2011).

An observation that was made by Gatto and Tak (2008) from Rideout's research was there used to be a large gender gap with the use of the internet; older men were more likely to use the internet than older women were by a 3:2 ratio, but this rate leveled at a 1:1 ratio in 2003.

Social Support for Older Adults Online

There are an increased number of older adults living alone (Leist, 2013). The Administration on Aging (2011) found that 29.3% of older adults live alone (8.1 million women, 3.2 million men); and with fewer extended families and more geographically spaced families, social support and connectivity becomes difficult (Leist, 2013). Furthermore, "maintaining social relationships has been defined as a core element to

aging-well” (Leist, 2013). Gatto and Tak (2008) reaffirmed the social support notion by their reported research alignment with communication and social relationships, which utilized friends, family, and companions to promote and maintain social support. In their study of 58 older adults, Gatto and Tak found most participants’ favorite activity on the internet was staying connected with friends, family, and companions. More than 30% of the participants mentioned they thought e-mail and communication were the most positive aspects of the internet.

Social media can enhance social connections for older adults with friends, family, and companions that may have a different geographical location, mobility problems, and/or time-consuming obligations. Leist (2013) conducted a literature review from July to August 2012 and found that the motivations for using social media were for enjoyment, engagement, and to provide and receive social support.

Social Support and Coping Online

Wright (2000) explained that social support and coping utilizing the internet provided positive effects, such as a decrease in life stress and an increase in life satisfaction. Furthermore, older adult friendships (companionship) have been found to provide more positive effects than family relationships (Wright, 2000). Social support and companionship can be looked at through two different scopes due to the different qualities they provide. Wright explained that social support is “motivated by desires to obtain help with personal problems and emotional distress, whereas companionship is typically motivated by the desire to experience interpersonal rewards such as positive affect and stimulation” (p. 103). Both social support and companionship can differ in how they add to well-being (Wright, 2000).

Wright (2000) showed in his research of 136 participants from a SeniorNet survey, which was conducted in 1998, that there is a slight relationship between networking and a decrease of life stress (4%) for seniors 55 to 87 years old. Noted by Wright (2000), both size and satisfaction in relation to social support networks have been consistently inversely related to life stress. Less formal ties such as those through the internet have been found to be more beneficial than their counterparts—face-to-face meetings (Wright, 2000).

Loneliness and the Internet

It is important to recognize how the internet is used and how much time is spent on it; quality vs. quantity. Sum et al. (2008) provided information on time spent on the internet as a predictor for social loneliness when it was used for communication directed towards unknown people. In contrast, using the internet to keep in contact with relatives, family members, and friends was specifically associated with lower levels of social loneliness. Furthermore, data collected between February and July 2006 of 222 internet users 55 years of age and older, Sum et al. (2008) showed that how people use the internet is as important as how much time they spend on the internet.

Social Capital through the Internet

“New media present many new opportunities and challenges for social inclusion” (Sum et al., 2008, p. 203); moreover, wide ranges of communities can be developed without face-to-face communication. Ideally, the internet has positive effects on both individuals and communities. An effect of the internet is the production of social capital. Social capital refers to productive outcomes enabled by social relationships between people. Social capital has different dimensions, but the two categories that they diverge

from are network structure and content. Networks consist of actors and relationship ties each have that form a social structure (Sum et. al, 2008). Researched by Sums and colleagues, social capital is examined through the lens of social capital theory, which states “there are some abilities and values rooted in social networks and relationships that create certain kinds of benefits for people to use, both instrumental and emotional...” (Sum et. al, 2008, p. 204). Most importantly, social capital theory is a strong framework to analyze social networks and how they (social networks) affect the wellbeing of the users (Sum et al., 2008). Sum and colleagues found that all different applications of the internet were related to higher levels of general social capital.

Promotion of Well-being through the Internet

The internet can provide routine means of communication for many, even for older adults, which can increase independence, decrease isolation, and create a thriving psychosocial mentality for older adults (Shapira, Barak, & Gal, 2007). Shapira et al. (2007) conducted a study with 22 older adults, 9 men and 13 women, with an age range of 70 to 93. Subjects participated in comparison group activities, which were held in separate locations to avoid information corruption. The activity consisted of an intervention on computer operation and internet use. The intervention’s aim was to equip older adults with skills for operating a personal computer and use several internet applications: e-mail, browsing the web, forums, and virtual communities. The instrument to measure the subjects’ perceptions after the intervention was a questionnaire that contained questions pertaining to computer experience, recent negative life-events, physical function, life-satisfaction, depression, loneliness, self-anchoring, and perceived control. Shapira et al. (2007) found that allowing older adults to use the internet resulted

in a decrease in depression $p < 0.01$, loneliness $p < 0.001$, and increase satisfaction with life $p < 0.001$, life quality $p < 0.01$, and sense of control $p < 0.001$.

Hogeboom, McDermott, Perrin, Osman, and Bell-Ellison (2010) examined social media use and the management of health outcomes. The study consisted of 2284 participants from the 2004 Health and Retirement Survey with an age of 50 and above. The survey focused on information that pertained to later life, demographic background, health, employment, family relationship, income, and wealth. The study aimed to find out if internet use could strengthen social networks for older adults thus improving health outcomes. Specifically for the study, measures were added to gauge social networks and social ties. Hogeboom et al. (2010) found there was no difference between close relationships based on social networks established through the internet/social media and face-to-face relationships. The important difference between face-to-face meetings and virtual meetings were virtual meetings were more frequent with family members and friends $p < .0001$.

The value of internet use such as social media and email has had mixed results in research on its effects to increase or decrease social isolation. Cotten, Anderson, and McCullough's (2013) study had 205 subjects, 36 men and 169 women, with a mean age of 82.8. The sample consisted of 79 participants who enrolled in an internet use activity and 126 who had not. The goal of the study was to examine how internet use affects perceived social isolation and loneliness by using measurement questions, such as feelings of lack of companionship, feeling left out, and feeling isolated. The measurement questions allowed Cotton et al. to measure perceived social isolation and loneliness after internet use training. They showed that the frequency of going online

was weakly and negatively correlated with loneliness ($r=0.232$) and social isolation ($r=0.134$). Cotten et al. (2013) found that frequency of going online and internet outcome variables were moderately correlated ($r=0.304$ to $r=0.514$), which represented an increase in the quality of communication for older adults with others and the reduced feelings of isolation for participants.

Factors That Encourage/Discourage Social Support Through Social Media

Braun studied a total of 124 older adults aged 60 to 90, and the majority of the participants were women. All of the participants reported using the internet at least once a week (Braun, 2013). The participants were recruited through senior centers, email, and through a series of lectures. Moreover, there was no attempt to recruit a representative sample of the population. Each participant in the study was given a survey hand out or a link online that would allow them to complete the survey. If the participants did not use social networking websites, then they were instructed to answer based on their thoughts about social networking websites (Braun, 2013). All of the surveys contained information about three popular social network websites (e.g., Facebook, Twitter, MySpace). The surveys also contained measures to gauge attitudes towards social networking websites.

The intent of the study was “to examine relationships between each individual hypothesized attitudinal and behavioral construct and its relationship to intention to use social network websites” (Braun, 2013, p. 676) including:

1. Perceived usefulness of social networking websites (SNS) is positively related to intention to use SNS.
2. Perceived ease of use of websites is positively related to intention to use SNS.

3. Social pressures from family and friends to use SNS will be positively related to intention to use SNS.

4. Trust in SNS will be positively relation to intention to use SNS.

5. Age will be negatively correlated with intention to use SNS.

6. Frequency of internet use will be positively related to intention to use SNS.

Hypotheses 1 and 4 were supported, and frequency of internet use was a strong predictor in supporting hypothesis 6.

Braun (2013), noted that age had seldom been studied as a determinate of the use of new technologies. Braun found that age was negatively correlated with the intention to use social media, although under larger models (more subjects) the findings were not significant. Moreover, Braun stated that sex and education were significant factors in determining the use of social media by older adults.

Summary

Social media and the internet have had many effects on older adults. Social theories can be applied to better understand the use of social media by older adults, but cannot solely explain the use of social media. The use or non-use of the internet and social media can possibly have an effect on isolation and depression of old adults. Social media can be a means to staying socially connected, which can reduce factors that cause negative effects on aging-well for the rising older adult population. Furthermore, the use of social media by older adults provides promotion of well-being. Lastly, factors that encourage and discourage older adults from using the internet and social media were mainly due to psychological barriers.

This review of literature presented research regarding, the previously stated effects of social media on older adults. Furthermore, related research provided methodologies to measure various factor's effects on the use or non-use of the internet on social connectivity/loneliness, and depression, but there is a lack of research that cohesively examined the effect of psychosocial factors related to use or non-use of social media rather than the internet. If the research did examine social media, then it did not include a variety of social media including email and texting. There was ample research on the effect of demographic variables and the use of internet, but there was a lack of research that examined the effect of demographic variables including sex, age, income, and educational level on the use of social media. Furthermore, research stated that household income and education level showed no significant difference in use of social media, when solely pertaining to large group from the ages of 18 and older. This study will examine the effects of use or non-use of social media on connectivity/loneliness, and depression, and the influence of various demographic variables specifically in an adult population 50 years of age and older.

CHAPTER 3

METHODOLOGY

The purpose of this study was to evaluate the effect of use or non-use of social media on social connectivity/loneliness and depression, and the effect of demographic variables including sex, age, income, and educational level on the use of social media. This chapter discusses the research design, participant recruitment, the instruments, procedures for collecting data, and data analysis.

Research Design

The design of this study was a descriptive survey, and it utilized convenience sampling to obtain data. This design was used because the objective was to test specific hypotheses regarding participants. In this study, hypotheses one and two, the independent variable was use or non-use of social media, and the dependent variables were social connectivity—loneliness and depression. On hypothesis three the independent variable was sex and the dependent variable was use/non-use of social media. When other demographic variables were tested, hypothesis four through six; the factor variables were age, income, and educational level.

Setting

The setting consisted of a Southern California senior center and lifelong learning institute. Both sites provided older adults with access to computers and education on the use of computers. At the senior center and the lifelong learning center, the researcher

was assigned a table in a common area where he was able to distribute surveys to prospective participants.

Selection of Sample

The sample was chosen through convenience sampling with the rationale of finding older adults who use/do not use social media. Participants were selected according to the following inclusion criteria: older adults (non-institutionalized), who were 50 years of age and older, and who reside in Southern California. Additionally, the sample was limited to those who read and understand English and who had full cognitive function indicated by the absence of a guardianship. Specifically, the reasoning for the selection criteria was that the instruments were only presented in English, and the participants had to be able to comprehend and sign the informed consent as well as facilitate themselves through the written survey. The hardcopy survey allowed for responses from older adults who did and did not use the internet. The participants were recruited through an introduction of the research to the participants at both the senior center and the lifelong learning institute by the researcher. The number of participants was determined by eight to ten observations per variable yielding at least 56 participants, which allowed for accuracy of statistical analyses.

Instrumentation

The research used a demographic survey to obtain data on the use of social media sex, age, income, and education level of the participants. The data was collected in ranges, as appropriate. Use of social media included how often the participants used social media, the type of social media used and the frequency of use (Appendix A).

The second instrument that was used was the Geriatric Depression Scale: Short Form (GDS) developed by Kurlowicz and Greenberg (2007) (Appendix A). The Geriatric Depression Scale: Short Form is a public instrument, thus permission to use it was not required. This instrument consists of 15 questions corresponding with how the participant felt over the past week. The questions are in the form of a forced yes/no response. The instrument was scored by answers to questions in bold which indicate depression. For every bold yes/no answer a point is added; a score of greater than five points is suggestive of depression, greater than or equal to ten is almost always indicative of depression, and a score of greater than five point should warrant a follow up assessment.

The reliability and validity of the GDS was found to have 92% sensitivity and 89% specificity when evaluated against diagnostic criteria. The GDS has been supported in both clinical practice and research. Moreover, the GDS was successful in differentiating depressed from non-depressed older adults with a high correlation of ($r = .84, p < .001$) (Greenberg, 2007).

The third instrument the researcher used is the UCLA Loneliness Scale (Version 3) developed by Russell and his colleagues (1996) (Appendix A). There was no consent needed to use the UCLA Loneliness Scale (Version 3) instrument because it is publicly accessible. This version of the scale simplified the response format and wording of the items (Russell, 1996). The 20-item scale is designed to measure a participant's feelings of loneliness and feelings of isolation (Russell, 1996). Furthermore, this instrument was used to measure social connectivity because of its ability to measure interpersonal relations through loneliness, well-being, and health. The participant read each question

(out of twenty) and responded with a number on the provided line next to the question, which corresponded to how the participant may feel. The numbers ranged from 1 to 4, and they indicate never, rarely, sometimes, and always. The instrument was scored by adding the numbers from all of twenty questions. The possible range of the score is 20 to 80 points and higher scores indicate greater degrees of loneliness. Particular questions were reversed scored, and they were indicated by an asterisk. Overall, the UCLA Loneliness Scale aided in the researchers study to measure social connectivity/loneliness. Higher scores on the UCLA Loneliness Scale were interpreted to measure social connectivity through level of loneliness.

The UCLA Loneliness Scale has been tested for reliability and validity. The instrument has been tested on many groups ranging from college students to the elderly. The elderly sample consisted of 301 individuals (121 males, 180 females) who were over 65 years old. The study was a one-year longitudinal study that consisted of monthly mail questionnaires, interviews, and collection of medical information (Russell, 1996). The aim was to investigate the impact of psychosocial factors on the health and well-being of the elderly. Overall, the reliability of the instrument for the elderly sample using a test-retest design gave a correlation of .73, and a paired t test showed that there was no significant score change over the one year period, $t(283) = 1.23, p \leq .05$ (Russell, 1996). The validity of the elder test showed that loneliness scores were weakly related to the number of people one has in their social network. Furthermore, scores were unrelated to the average amount of social contact. However, loneliness scores were strongly related to perceived quality of the participant's interpersonal relationship with their contacts (Russell, 1996).

Procedure

The researcher first presented the proposed study to the selected senior center community and lifelong learning institute supervisors for written approval to begin the study process. Furthermore, the selected sites were presented with the study and the survey, so they had a better understanding of the research and researcher's goals. The next step was the process of the Institutional Review Board for the Protection of Human Subjects (IRB) at California State University, Long Beach.

After the researcher received approval from the IRB, the researcher began to distribute surveys to the selected senior center and lifelong learning institute, utilizing convenience sampling. The researcher planned a week for data collection at the selected sites. The researcher introduced himself to prospective participants from his approved area at each facility. The researcher requested participation of potential subjects as they walked by the researcher. At the senior center the researcher was assigned a table in a common area where he collected completed surveys. The researcher approached potential subjects on an individual basis. At the lifelong learning institute, the researcher was aided by being provided an opportunity to introduce himself to prospective participants. The researcher was provided a table and seating in a designated area to distribute consent forms and surveys. Participants obtained surveys and the statement of informed consent forms in the designated area to which the researcher was assigned.

The researcher introduced himself and explained the topic of the survey and the time duration of the survey through the recruitment participation script (Appendix C); the survey took approximately 15 to 20 minutes to complete. The researcher presented each

potential subject with a packet that included a consent form, survey, and pen. The researcher asked the potential participants to review and sign the consent form if they were willing to participate. Data was collected until a minimum of 60 surveys had been completed.

Once informed consent was signed, the participant took his or her survey. At the senior center, the subjects were able complete the survey where they pleased. At the lifelong learning center, the subject was able complete their survey at their desk. The researcher brought clipboards if there were not enough tables/space for participants to take the survey. If any of the participants had a problem with the survey they were able to discontinue without any penalties. The participants were able to ask for assistance from the volunteer coordinator at the senior center if they were feeling distressed. At the lifelong learning center, they were able to ask the supervisor for assistance if they were feeling distressed.

Once the participant finished the consent form and survey they placed the documents in separate containers, one labeled for consents forms and the other for surveys. The data collection took place over two weeks. One week was assigned to collecting data at the senior center, and one week was assigned to collect data at the lifelong learning center. The surveys were collected within the hour of the researcher's arrival at both collections sites. The ballot boxes for the consent form and survey form were collected by the researcher within the hour of the researcher's arrival. The ballot boxes were taken with the researcher and were stored and locked securely. If the participant wanted a copy of his or her consent from, the researcher gave them a copy immediately.

Data Analysis

The data was analyzed using SPSS Statistical Package for the Social Sciences (version 21.0, 2012), to conduct descriptive and inferential statistics. The descriptive statistics included the use of social media (yes/no), use of social media (frequency and type), age, sex, income, and education level. The statistical technique that was used for hypothesis one and three was a chi-square test, hypothesis two used an independent sample t-Test, hypotheses four through six used an analysis of variance (ANOVA). The cut off level for significance was $\leq .05$.

Summary

The design of this study was descriptive, and it utilized convenience sampling to obtain data. The setting consisted of a Southern California senior center and lifelong learning institute. Participants were selected according to the following inclusion criteria: senior center dwelling older adults (non-institutionalized), and older adults who are 50 years of age and older. Additionally, the sample potential was limited to those who read and understood English and who had full cognitive function indicated by the absence of a guardianship. Important tools that were used to gauge hypotheses were the UCLA Loneliness Scale Version 3, The GDS, and demographic questions.

CHAPTER 4

RESULTS

The purpose of this study was to evaluate the effect of use or non-use of social media on social connectivity/loneliness and depression, and the effect of demographic variables including sex, age, income, and educational level on the use of social media. This chapter reveals the findings of the research through data analysis.

Descriptive Characteristics of Sample

The researcher obtained 67 surveys. Sixty-five participants completed the survey and, two (3%) participant surveys were missing data but the researcher was still able to use the data that was completed.

The descriptive characteristics of older adult participants that use or do not use social media (SM) is presented in Table 1. The age of the participants are reflected by categories presented in Table 1. The majority of the participants (54.3%) were between the ages of 60 and 79. The majority of participants in the study (52.2%) were male ($n = 35$). Females represent 47.8% ($n = 32$). The majority of the participants in the study (83.6%) used social media ($n = 56$).

TABLE 1.

Descriptive Characteristics of Older Adult Participants That Use/Do Not Use Social Media ($n = 67$)

Characteristics	<i>n</i>	Percentage
Sex		
Female	32	47.8
Male	35	52.2
Social Media Use		
No	11	16.4
Yes	56	83.6
Type of Social Media		
Facebook	29	43.3
Myspace	1	1.5
LinkedIn	10	14.9
Twitter	9	13.4
Tumblr	3	4.5
Instagram	6	9.0
Email	52	77.6
Texting	35	52.2
Forums	4	6.0
Other	3	4.5
Age Group		
50 to 59 (Group 1)	14	20.9
60 to 69 (Group 2)	23	34.4
70 to 79 (Group 3)	20	29.9
80 and older (Group 4)	10	14.9

Hypotheses

Hypothesis 1 stated that there is no significant difference in social connectivity/loneliness score in a sample of older adults related to use or non-use of social media. The level of loneliness was measured by the UCLA Loneliness Scale (Version 3). The researcher collapsed the loneliness scores of participants into two groups labeled range 1 and range 2 (low and high loneliness score respectively), which

ranged from 20 through 40 and 41 through 80. A chi-square test of goodness-of-fit showed that there was no significance difference, $X^2(1, N = 67) = 1.76, p = 0.185$. The data supported this hypothesis. The results of this test are presented in Table 2.

TABLE 2. Chi-Square Results of Loneliness Score and the Participant Use/Non-Use of Social Media

Loneliness Range	Use of Social Media				Chi-Square	d.f.	p value
	No <i>n</i>	%	Yes <i>n</i>	%			
Range 1	4	11.1	32	88.9	1.760	1	0.185
Range 2	7	23.3	23	76.7			

Hypothesis 2 stated there is no significant difference in depression score in a sample of older adults related to use or non-use of social media. The level of depression was measured by the Geriatric Depression Scale: Short Form. The independent t-test showed that there was no significant difference between the means scores for users and non-users of social media. Participants that used social media had a lower mean scores of depression ($M = 1.11, SD = .312$) than did those that do not use social media ($M = 1.27, SD = .646$), $t(65) = .830, p = .424$. The data supported this hypothesis. The results of this test are presented in Table 3.

TABLE 3. Independent t-Test Results Analyzing Mean Scores of Social Media Users and Non-Users and Their Depression Score

Use/Non-Use of Social Media	<i>n</i>	Mean	Standard Deviation	Standard Error Mean	<i>t</i>	d.f.	p Value
Yes	56	1.11	.312	.042			
No	11	1.27	.646	.019	-0.830	65	0.424

Hypothesis 3 stated there is no significant difference in sex in a sample of older adults related to use or non-use of social media. A chi-square test of goodness-of-fit showed that there was no significance, $X^2(1, N = 67) = 2.21, p = 0.137$. The data supported this hypothesis. The results of this test are presented in Table 4.

TABLE 4. Chi-Square Results of the Participant Use of Social Media and Their Gender

Use/Non-Use of Social Media	Male <i>n</i>	Gender %	Female <i>n</i>	%	Chi-Square	d.f.	<i>p</i> Value
No	8	72.7	3	27.3	2.214	1	0.137
Yes	27	48.2	29	51.8			

Hypothesis 4 stated there is no significant difference in age in a sample of older adults related to use or non-use of social media. An analysis of variance showed that there was no significant difference in the use or non-use of social media related to age, $F(3,67) = .725, p = .541$. A post hoc analysis using the Bonferroni criterion showed no significance in the test. The data supported this hypothesis. The results of this test are presented in Table 5.

TABLE 5. Social Media Usage Comparing Four Ranges of Age

Range of Age	<i>n</i>	Mean	Standard Deviation	Standard Error Mean	F	d.f.	<i>p</i> Value
Dependent Variable							
Social Media Usage							
Age							
50 – 59	14	.929	.267	.071	.725	3	.541
60 – 69	23	.869	.344	.072			
70 – 79	20	.750	.444	.099			
80 and over	10	.800	.422	.133			

Hypothesis 5 stated there is no significant difference in income in a sample of older adults related to use or non-use of social media. An analysis of variance showed that there was a significant difference in the use or non-use of social media by older adults related to income, $F(5,65) = 3.77, p = .005$. A post hoc analysis was conducted using the Bonferroni criterion to indicate where the differences occurred among the income group means. The post- hoc analysis revealed that lower income participants used social media significantly less when compared to middle and upper income level participants. The results of this test are presented in Table 6.

TABLE 6. Social Media Usage Comparing Six Levels of Income

Levels of Income	<i>n</i>	Mean	Standard Deviation	Standard Error Mean	F	d.f.	<i>p</i> Value
Dependent Variable							
Social Media							
Income							
\$ < 10K	5	.600	.548	.245	3.769	5	.005
\$10K – 19K	12	.500	.522	.151			
\$20K – 29K	6	1.000	.000	.000			
\$30K – 39K	9	1.000	.000	.000			
\$40K – 49K	10	.900	.316	.100			
\$50K +	23	.913	.288	.060			
Post Hoc							
Dependent Variable							
Social Media							
Levels of Income		Mean Difference		Standard Error			<i>p</i> Value
\$10K-19K vs. \$30K-39K		-.500		.151			.024
\$10K-19K vs. \$50K +		.413		.122			.019

Hypothesis 6 stated there is no significant difference in education level in a sample of older adults related to use or non-use of social media. An analysis of variance

showed that there was no significant difference related to education, $F(3,67) = 1.41$, $p = .250$. A post hoc analysis using the Bonferroni criterion confirmed no significance in the test. The data supported this hypothesis. The results of this test are presented in Table 7.

TABLE 7. Social Media Usage Comparing Four Levels of Education

Levels of Education	<i>n</i>	Mean	Standard Deviation	Standard Error Mean	F	d.f.	<i>p</i> Value
Dependent Variable							
Social Media Usage							
Education							
High School	15	.800	.414	.107	1.405	3	.250
Some College	13	.692	.480	.133			
Undergraduate	10	1.000	.000	.000			
Graduate	29	.862	.351	.065			

Summary

The purpose of this study was to evaluate the effect of use or non-use of social media on social connectivity/loneliness, and depression; and the effect of demographic variables including sex, age, income, and educational level on the use of social media. Study results revealed that the use or non-use of social media did not affect loneliness scores, nor did they affect depression scores. Study results also revealed that sex, age, and education levels had no effect on use or non-use of social media. The study did show that there was a significant difference in the use or non-use of social media by older adults related to income; an analysis of variance showed that there was a significant difference with a *p*-Value of .005. The Bonferroni test indicated that lower income participants demonstrated significantly less use of social media compared to the upper and middle income level participants.

CHAPTER 5

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to evaluate the effect of use or non-use of social media on social connectivity/loneliness and depression, and the effect of demographic variables including sex, age, income, and educational level on the use of social media. This chapter will discuss the results of this study related to existing literature on the use or non-use of social media, social connectivity/loneliness, depression, and specific demographics. It will also present limitations of the study and recommendations for future research.

There is a lack of research that has cohesively examined the effect of psychosocial factors related to use or non-use of social media other than the internet. If the research did examine social media, then it did not include a variety of social media including email and texting. There was ample research on the association of demographic variables and the use of internet, but there was a lack of research that examined the effect of demographic variables including sex, age, income, and educational level on the use of social media. Six hypotheses were tested to divulge more information on the latter topics. This chapter discusses findings, conclusions, and recommendations for areas of further research.

Discussion

Prior research related to older adults and social media concerning connectivity/loneliness, depression score, sex, age, income, and education level was

limited or had conflicting findings. This research attempted to further elucidate the variables that affect the use or non-use of social media.

Hypothesis 1 stated that there would be no significant difference in social connectivity/loneliness score in a sample of older adults related to use or non-use of social media. This hypothesis was supported by study results, and suggested that the use or non-use of social media did not have a significant difference with social connectivity/loneliness. This finding is consistent to a point with studies of social media use and loneliness. Sum et al. (2008) explained the notable positive effects of social media on loneliness, but also provided information on time spent on the internet as a predictor for social loneliness when it was used for communication directed towards unknown people. Moreover, Sum et al. revealed that how people use the internet is as important as how much time they spend on the internet. Because the study was not an experiment, the use or non-use of social media could not be noted as a cause/effect of a change in loneliness score. Many other variables could have affected the relationship between the loneliness score and the use and non-use of social media. For example, the participants could have been feeling lonelier the particular day of the study, the survey questions could have affected the participant's feeling of loneliness, and the participant could have been dishonest due to a lack of privacy while taking the survey.

An interesting point about the connection between loneliness and use of social media in relation to Dean's study (1962) on loneliness revealed that adults 80 years of age and above had higher levels of loneliness than those in the age bracket of 50 to 79, but in this study adults 80 and above had lower levels of loneliness; a mean score of 37 compared to a range of 39 to 41 out of a loneliness scale from 20 to 80.

Hypothesis 2 stated there would be no significant difference in depression score in a sample of older adults related to use or non-use of social media. This hypothesis was supported by study results, and they suggested that the use or non-use of social media did not have a significant difference in depression scores. This finding is not consistent with studies of internet use and depression. Shapira et al. (2007) found that allowing older adults to use the internet resulted in a decrease in depression. One problem that could have affected this study was the sample size of users to non-users of social media (56 users versus 11 non-users). The type of depression test could have affected the results because it only measured the participants' depression for the past week (i.e. they could have had a very good or bad past week).

Hypothesis 3 stated there would be no significant difference in sex in a sample of older adults related to use or non-use of social media. This hypothesis was supported by study results, and they suggested that the use or non-use of social media did not have a significant difference with sex. Those that used social media in relation to sex were 29 (51.8%) female to 27 (48.2%) male. This finding is consistent with studies of social media use but not internet use. Zickhur and Madden (2011) found that women tended to use social networking sites more than men. Braun (2013) also stated in his research that sex was a significant factor in determining the use of social media by older adults. In relation to internet use, Gatto and Tak (2008) took from Rideout's research that older men were more likely to use the internet than older women were by a 3:2 ratio, but this rate leveled at a 1:1 ratio in 2003. A possible reason for the inconsistency with this study's results and the literature review finding could be the inclusion of texting, emailing, and forum use and not traditional social media— (i.e. Facebook, Myspace, and

Twitter). Sample size can also be affecting the consistency. If there was a large sample size, then males could have been the predominant users of the social media due to the added types of social media.

Hypothesis 4 stated there would be no significant difference in age in a sample of older adults related to use or non-use of social media. This hypothesis was supported by study results, and suggested that the use or non-use of social media did not have a significant difference with age. One literature review finding only reviewed the increase of social media use in age groups. The difference of use or non-use in relation to age was not examined. Zickhur and Madden (2011) examined adults' use of social networking sites and found out that 51% of older adults from 50 to 64 used it. In their study they found that of those 65 and older, only 33% used social networking sites. Thus as age went up use of social media went down. In this study, age brackets 60 to 69 and 70 to 79 had the most users of social media, 23 and 20 respectively. These findings were similar to Braun's (2013) results of age being negatively correlated to social media use. The oldest age bracket, 80 and above, had the fewest users (10) in this study which satisfies both Braun's hypothesis and Zickhur and Madden findings. Surprisingly, the age bracket of 50 to 59 had only 14 users of social media. One possibility for a low number of users in the 50 to 59 bracket is the survey sites were not generally represented by the 50 to 59 age group.

Hypothesis 5 stated there would be no significant difference in income in a sample of older adults related to use or non-use of social media. The hypothesis was not supported by the study results; income had a significant difference in the use or non-use of social media. This finding was inconsistent with the literature review findings.

Zichhur and Madden (2011) found that there was no significant difference in the use of social networking sites based on household income. Whereas, this research study revealed that lower income participants demonstrated significantly less use of social media compared to the upper and middle income level participants. There were 50% more users of social media in the middle income levels and nearly double the users of social media in the upper income levels. Zichhur and Madden's spread of data showed that users of social media in the "Less than \$30,000" group was 68%, the "\$30,000 to \$49,000" group was 70%, the "\$50,000 to, \$74,999" group was 63%, and the "\$75,000+" group was 68%. The study results may be different from the literature review findings because of the "household" income and the larger age range that was observed. This study only looked at an individual participant's income and not the "household" income, and the lowest income range was \$10,000 to \$19,000 rather than \$30,000 or less. Moreover, this study specifically focused on older adults.

Hypothesis 6 stated there would be no significant difference in education level in a sample of older adults related to use or non-use of social media. This hypothesis was supported by study results, and suggested that the use or non-use of social media did not have a significant difference with education level. The literature review proved to have conflicting results. Braun (2013) stated that education was a significant factor in the determining use of social media by older adults. Whereas, Zichhur and Madden (2011) found that there was no significant difference found in the use of social networking sites based on education level. A possibility for education not playing a large roll in use or non-use of social media is the perceived ease of use of social media, which Adams et al. (2005) discussed (i.e. how readily easy is it for the user to learn, access, and use).

Moreover, many older adults could be learning through family which could create a higher perceived ease of use for the user.

Conclusions

The results of this study suggested that there is no significant difference in the use or non-use of social media related to most demographics, social connectivity/loneliness scores, and depression scores. The demographic variable that showed a significant difference in the use or non-use of social media was income. Those with lower incomes used less social media than those in the middle and upper income levels. Although much of the literature review had information on internet use, it provided a background to work with in aiding the direction of this study. The inconsistency of results from previous studies in relation to this study provides researchers with a provoking thought that social media use must be looked at in great detail. Furthermore, social media is continuing to grow, and it is being used more by many older adults. The findings and repercussions of social media use are inconsistent at best for this population.

Limitations

As stated in the delimitations, this study was limited by a small sample size, a local sample, self-report, and the lack of ability to generalize. The sample size was not large enough to allow for diversity within the context of influencing factors. The data was collected through convenience sampling which also effected generalization.

Recommendations for Future Research

This study's scope was limited by a small sample size, a local sample, self-report, and the lack of ability to generalize. The sample size was not large enough to allow for diversity within the context of influencing factors. The data was collected through

convenience sampling which also effected generalization. Through the attempt to recruit more participants and survey sites the spread of data could have been more revealing.

The researcher recommends conducting additional research on social media use and non-use in relation to social connectivity/loneliness, depression, and adding in dating sites as a source of social media. First, to improve the study time should be taken to find a more encompassing loneliness and depression scale; if needed multiple tests on loneliness and depression should be given to obtain an accurate rating from participants. Second, the study could be transformed into an experiment by adding a control group, providing participants with a private setting to fill out the loneliness and depression scale.

Moreover, a larger group of non-users would allow for more efficient statistical analysis results. Third, a larger sample size will provide improved confidence in the study results. Lastly the study can be turned into a qualitative study to understand how time is spent on social media, whom the user makes connections with, how long connections are lasting, and what type of quality and value those connections have with the user.

APPENDICES

APPENDIX A
SURVEY/DATA COLLECTION FORM

Social Media Survey

Section 1

Please follow all directions as prompted: fill in the correct bubbles that apply to you for Section 1.

1. Which of the following social media do you use?

(Fill in all bubbles that apply)

- | | | | |
|--------------------------------|---------------------------------|-------------------------------|---|
| <input type="radio"/> Facebook | <input type="radio"/> Twitter | <input type="radio"/> Email | <input type="radio"/> Other (please list below) |
| <input type="radio"/> Myspace | <input type="radio"/> Tumblr | <input type="radio"/> Texting | _____ |
| <input type="radio"/> LinkedIn | <input type="radio"/> Instagram | <input type="radio"/> Forums | _____ |

2. How often do you use Social Media each week?

- Less than 1 hour
- 1 hour to 5 hours
- 6 hours to 10 hours
- 11 hours to 15 hours
- 16 hours or more
- do not use

3. If you use social media, how do you use it?

(Fill in all bubbles that apply)

- | | |
|---|---|
| <input type="radio"/> To keep in contact with friends | <input type="radio"/> To share photos/videos |
| <input type="radio"/> To keep in contact with family | <input type="radio"/> To idle away time |
| <input type="radio"/> To make new friends | <input type="radio"/> I don't use social media |
| <input type="radio"/> To find old friends | <input type="radio"/> Other (please list below) |
| <input type="radio"/> To chat the day away | _____ |
| <input type="radio"/> To join interest groups | _____ |

4. What is your sex?

- Male
- Female

5. What is your age?

- 50-59
- 60-69
- 70-79
- 80 or older

6. What is your education level?

- Less than high school
- High school diploma
- Some college
- Undergraduate degree
- Graduate degree

7. What is your estimated income?

- Less than \$10,000
- \$10,000 to \$19,000
- \$20,000 to \$29,000
- \$30,000 to \$39,000
- \$40,000 to \$49,000
- \$50,000 +

Section 2

Choose the best answer for how you have felt OVER THE PAST WEEK by filling in the bubble:

1. Are you basically satisfied with your life?

- Yes
- No

2. Have you dropped many of your activities and interests?

- Yes
- No

3. Do you feel that your life is empty?

Yes

No

4. Do you often get bored?

Yes

No

5. Are you in good spirits most of the time?

Yes

No

6. Are you afraid that something bad is going to happen to you?

Yes

No

7. Do you feel happy most of the time?

Yes

No

8. Do you often feel helpless?

Yes

No

9. Do you prefer to stay at home, rather than going out and doing new things?

Yes

No

10. Do you feel you have more problems with memory than most?

Yes

No

11. Do you think it is wonderful to be alive now?

Yes

No

12. Do you feel pretty worthless the way you are now?

Yes

No

13. Do you feel full of energy?

Yes

No

14. Do you feel that your situation is hopeless?

Yes

No

15. Do you think that most people are better off than you are?

Yes

No

Greenberg, S. (2007). How to try this: the geriatric depression scale. *American Journal of Nursing*, 107(10), 60-69. Retrieved from http://journals.lww.com/ajnonline/Abstract/2007/10000/How_To_try_this__The_Geriatric_Depression_Scale_.32.aspx

Section 3

Instructions: The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described by filling in a bubble in the space provided.

1. How often do you feel that you are “in tune” with the people around you?

Never

Rarely

Sometimes

Always

2. How often do you feel that you lack companionship?

- Never
- Rarely
- Sometimes
- Always

3. How often do you feel that there is no one you can turn to?

- Never
- Rarely
- Sometimes
- Always

4. How often do you feel alone?

- Never
- Rarely
- Sometimes
- Always

5. How often do you feel part of a group of friends?

- Never
- Rarely
- Sometimes
- Always

6. How often do you feel that you have a lot in common with the people around you?

- Never
- Rarely
- Sometimes
- Always

7. How often do you feel that you are no longer close to anyone?

- Never
- Rarely
- Sometimes
- Always

8. How often do you feel that your interests and ideas are not shared by those around you?

- Never
- Rarely
- Sometimes
- Always

9. How often do you feel outgoing and friendly?

- Never
- Rarely
- Sometimes
- Always

10. How often do you feel close to people?

- Never
- Rarely
- Sometimes
- Always

11. How often do you get left out?

- Never
- Rarely
- Sometimes
- Always

12. How often do you feel that your relationships with others are not meaningful?

- Never
- Rarely
- Sometimes
- Always

13. How often do you feel that no one really knows you well?

- Never
- Rarely
- Sometimes
- Always

14. How often do you feel isolated from others?

- Never
- Rarely
- Sometimes
- Always

15. How often do you feel you can find companionship when you want it?

- Never
- Rarely
- Sometimes
- Always

16. How often do you feel that there are people who really understand you?

- Never
- Rarely
- Sometimes
- Always

17. How often do you feel shy?

- Never
- Rarely
- Sometimes
- Always

18. How often do you feel that people are around you but not with you?

- Never
- Rarely
- Sometimes
- Always

19. How often do you feel that there are people you can talk to?

- Never
- Rarely
- Sometimes
- Always

20. How often do you feel that there are people you can turn to?

- Never
- Rarely
- Sometimes
- Always

Russell, D. (1996). UCLA Loneliness Scale (version 3): Reliability, Validity, and Factor Structure. *Journal of Personality Assessment*, 66(1), 20-40. Retrieved from http://www.iscet.pt/sites/default/files/obsolidao/Artigo_base_ucla_loneliness_scale_v3.pdf

Thank you for participating in this survey.
Please place your survey and consent form to the boxes provided

APPENDIX B
STATEMENT OF INFORMED CONSENT

CONSENT TO PARTICIPATE IN RESEARCH
Factors that Influence Use of Social Media Among Older Adults

You are asked to participate in a research study conducted by Steven Grande, M.S.G(c), a graduate student from the Gerontology Program at California State University, Long Beach. His study results will be contributed to a graduate thesis. You were selected as a possible participant in this study because you are a participant of this senior program.

I am required to give you information about the study, and also to have you verify and sign the consent form. The signing of the consent form confirms that you understand and agree to participate in the study. I will return a copy of the consent form on retrieval of the survey.

PURPOSE OF THE STUDY

The purpose of this study is to evaluate the effect of use or non-use of social media on social connectivity/loneliness, and depression; and the effect of demographic variables including sex, age, income, and educational level on the use of social media

PROCEDURES

If you volunteer to participate in this study, you will do the following things:

- Consent to participate
- Confirm your consent by signing the form
- Answer survey questions
- This process will take approximately 15 to 20 minutes

Then return the consent form and survey to the researcher.

- You will return the consent form and survey at the same location it was given.

POTENTIAL RISKS AND DISCOMFORTS

There may be questions in the survey that are uncomfortable to answer. If at any time you feel unease you may skip the question or discontinue the survey.

POTENTIAL BENEFITS

The benefit in participating in this study is that you will help the research contribute to the understanding of social media and its use by older adults.

PAYMENT FOR PARTICIPATION

You will not be paid for your participation in this study.

CONFIDENTIALITY

Your information will be confidential, and the information will only be disclosed with your permission or as required by law. All data is stored in a secure format. To help protect your confidentiality, the surveys will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only and may be shared with California State University, Long Beach representatives.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without any penalties. Individual responses will not be shared with anyone at your institute. Participation or non-participation will not affect your permission to visit/attend the institute.

IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Steven Grande, M.S.G(c), at (310) 602-9954 or Barbara White, Dr. P.H., Faculty Sponsor at (562) 985-1582.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact the Office of University Research, CSU Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840; Telephone: (562) 985-5314 or email to Research@csulb.edu.

Participant Name: _____

Signature of

Participant: _____ Date: _____

APPENDIX C
PARTICIPANT RECRUITMENT SCRIPT

PARTICIPANT RECRUITMENT SCRIPT

Researcher:

My name is Steven Grande. I am a graduate student from California State University of Long Beach. I am conducting a survey about social media. Social media is a means of connecting with others through online communication. I have included text messaging and email to broaden the research findings. I am studying social media to examine the effect it has if used or not used in relation to specific emotions such as loneliness and depression. The study also intends to examine the effect of your sex, age, income, and educational level and how it relates or does not relate to your use of social media. To participate, you must read and sign a consent form. Moreover, the survey is voluntary, and it will not affect your ability to participate in your programs if you decline or accept to complete the survey.

The survey will take approximately 15 to 20 minutes to complete. Please answer the questions to your comfort level. Furthermore, you may choose not to answer any question that makes you feel uncomfortable.

The results will be reported to you through a generalized paper, if requested. There will be multiple copies for participants to pick up at the senior center or learning center front office. My contact information is located on the Consent Form.

Thank you for your consideration.

You may return the consent form and survey to the labeled boxes “Consent Forms” and “Surveys” once you have completed them.

REFERENCES

REFERENCES

- Adams, N., Stubbs, D., & Woods, V. (2005). Psychological barriers to internet usage among older adults in the UK. *Medical Informatics and the Internet in Medicine*, 30(1), 3-17. Retrieved from <http://informahealthcare.com/doi/abs/10.1080/14639230500066876>
- Administration on Aging (AoA). (n.d.). Retrieved June 10, 2014, from <http://www.usa.gov/directory/federal/administration-on-aging.shtml>
- American Psychiatric Association (APA). (2013). *DSM-V: Desk reference to the diagnostics criteria*. Washington, DC: American Psychiatric Publishing.
- Baker, P., Bricout, J., Moon, N., Coughlan, B., & Pater, J. (2012). Communities of participation: A comparison of disability and aging identified groups on Facebook and LinkedIn. *Telematics and Informatics*, 30, 22-34. Retrieved from www.elsevier.com/locate/tele
- Bass, S., Caro, F., & Chen, Y. (1993). *Achieving a productive aging society*. Westport, Connecticut, London: Auburn House.
- Braun, M. (2013). Obstacles to social networking website use among older adults. *Computers in Human Behavior*, 23, 673-680.
- Cotten, S., Anderson, W., & McCullough, B. (2013). Impact of internet use on loneliness and contact with others among older adults: Cross-sectional analysis. *Journal of Medical Internet Research*, 15(2), e39. doi: 10.2196/jmir.2306
- Dean, L.R. (1962). Aging and the decline of affect. *Journal of Gerontology* 17, 440-446.
- Gatto, S., & Tak, S. (2008). Computer, internet, and email use among older adults: Benefits and barriers. *Educational Gerontology*, 34, 800-811. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/03601270802243697#.Ubx_vnVDGg
- Greenberg, S. (2007). How to try this: The geriatric depression scale. *American Journal of Nursing*, 107(10), 60-69. Retrieved from http://journals.lww.com/ajnonline/Abstract/2007/10000/How_To_try_this__The_Geriatric_Depression_Scale_.32.aspx
- Hampton, R., & Russell, C. (2005). Activity theory. In *The Encyclopedia of Aging & The Elderly*. Retrieved from <http://www.medrounds.org/encyclopedia-of-aging/2005/12/activity-theory.html>

- Havighurst, R., Bernice, N., & Sheldon, T. (1968). Disengagement and patterns of aging. In *Middle Age and Aging: A Reader in Social Psychology* (pp. 161-172). Chicago, IL: University of Chicago Press.
- Hochschild, A. R. (1975). Disengagement theory: A critique and proposal. *American Sociological Review*, 40(5), 553-569.
- Hogeboom, D., McDermott, R., Perrin, K., Osman, H., & Bell-Ellison, B. (2010). Internet use and social networking among middle aged and older adults. *Educational Gerontology*, 36, 93-111.
- Knight, T., & Ricciardelli, L. (2003). Successful aging: Perceptions of adults aged between 70 and 101 years. *International Journal of Aging and Human Development*, 56(3), 223-245.
- Leist, A. (2013). *Social media use: A mini-review*. Retrieved from <http://www.karger.com/Article/Pdf/346818>
- Lynott, P., & Lynott, R. (2013). *Disengagement-critical assessment of disengagement theory*. Retrieved from <http://medicine.jrank.org/pages/483/Disengagement.html>
- Mirowsky, J., & Ross, C. (1992). Age and depression. *Journal of Health and Social Behavior*, 33(3), 187-205.
- Moody, H. & Sasser, J. (2011). Basic concepts in a life course perspective on aging. In *Aging: Concepts and Controversies*, 7th Ed. (pp. 1-25). Los Angeles, CA: SAGE.
- Nimrod, G. (2009). Seniors' online communities: A quantitative content analysis. *The Gerontologist*, 50(3), 382-392. Retrieved from <http://gerontologist.oxfordjournals.org/content/50/3/382>
- Nimrod, G. (2012). The internet as a resource in old adults' leisure. *The Journal of Community Informatics*, 8(1). Berlin: Freund Publishing House Limited.
- Perlman, D. & Peplau, L. (1984). *Loneliness research: A survey of empirical findings*. Washington, DC: U.S. Government Printing Office.
- Quadagno, J. (2011). *Aging and the life course* (5th ed.). New York, NY: McGraw-Hill.
- Rowe, J., & Kahn, R. (1998). *Successful aging*. New York, NY: Pantheon Books.
- Russell, D. (1996). UCLA Loneliness Scale (version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment*, 66(1), 20-40.
- Shapira, N., Barak, A., & Gal, I. (2007). Promoting older adults' well-being through internet training and use. *Aging & Mental Health*, 11(5), 477-484.

- Shock, N. (1963). [Review of the book *Growing old: The process of disengagement* by E. Cumming; W. E. Henry] . *The American Journal of Psychology*, 76(2), 341-342.
- Sum, S., Mathews, M., Hughes, I., & Campbell, A. (2008). Internet use and loneliness in older adults. *CyberPsychology & Behavior*, 11(2). doi: 10.1089/cpb.2007.0010
- Sum, S., Mathews, M., Pourghasem, M., & Ian, H. (2008). Internet technology and social capital: How the internet affects seniors' social capital and wellbeing. *Journal of Computer-Mediated Communication*, 14(1), 202-220.
- Wright, K. (2000), *Computer-mediated social support, older adults, and coping*. *Journal of Communication*, 50(3): 100–118.
- Zickhur, K. & Madden, M. (2011, August 26). *Older adults and internet use*. Retrieved from <http://www.pewinternet.org/2011/08/26/65-of-online-adults-use-social-networking-sites/>
- Zickhur, K. & Madden, M. (2012, June 06). *Older adults and internet use*. Retrieved from http://pewinternet.org/~media/Files/Reports/2012/PIP_Older_adults_and_internet_use.pdf