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Understanding Socialization Efficacy and Loneliness of Baby Boomers through Facebook

Lindsay Ballinger
Walden University

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Walden University

College of Social and Behavioral Sciences

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Lindsay Ballinger

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Walden University
2018

Abstract

Understanding Socialization Efficacy and Loneliness of Baby Boomers through
Facebook

by

Lindsay E. Ballinger

MS, Walden University, 2015

MA, Texas Wesleyan University, 2007

BA, University of Texas at Dallas, 2004

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

February 2018

Abstract

Baby boomers are the largest age cohort in the United States, making up approximately 20% of the population. This cohort is faced with global problems that contribute to perceived loneliness and a lack of socialization. Additionally, baby boomers have an increased online presence on Facebook (FB), yet little is known about this age group and FB use. This research study addressed this issue with an examination of the relationships between overall perceived loneliness, socialization efficacy, and FB use. The theoretical framework that guided this study was Bandura's social learning theory, which was used to examine the effects of social reinforcement. Participants, those born between 1946 and 1964, ($n = 97$) were asked to share 2 months of FB activity, including the number of FB friends, number of postings, types of postings, quotes included, status updates, articles reposted, and whether friends were tagged in their posts. The FB variables were correlated with perceived loneliness, as measured by the Revised UCLA Loneliness Scale, and socialization efficacy, as measured by the Social Skill Scale, through a stepwise multiple regression analysis. The findings did not yield any statistically significant relationships between the FB variables and loneliness or socialization efficacy among baby boomers. These findings imply that other factors not studied here are promoting the increase in baby boomer FB use. The social change implications include mental health clinicians having a deeper knowledge base of baby boomers' FB use and an accurate portrayal of this cohort for increased treatment effectiveness, as baby boomers are portrayed as being lonely, isolated, and technologically challenged, which was not empirically supported in this study.

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Dedication

To the three most important males in my life! Brett, Bryce, and Derek, the support you three have provided me has motivated me to be the best I can be for you all. To my first child, Shelby, you were there from the beginning and the reason this journey began. I love you all more than my words would ever be able to describe.

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Brett, you have encouraged me to continue and push myself from the moment we met. You continually want me to be a better person. I am overwhelmed with the love and support you have shown me. I pray that I encourage you in the same way you encourage me. Your work ethic, loyalty, and character are something to be admired. I love you to the moon and back.

My boys, Bryce and Derek! There is no love like a mother's love for her little men! I hope you are inspired to follow your dreams by watching me achieve my goals. Work hard and play hard. I love you guys more than words can describe.

Mom and Dad, you built my foundation and encouraged me continuously. You always believed in me and helped me achieve my goals. I love you exponentially.

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Chapter 1: Introduction to the Study

Introduction

Baby boomers tend to experience an increase in loneliness and lack of socialization as they age (Barker, 2012; Shankar, McMunn, Banks, & Steptoe, 2011). In this study, I examined the relationship between Facebook (FB) use, loneliness, and socialization efficacy as it pertains to the baby boomer generation. I explored the potential of FB as a means to manage this increased loneliness and socialization efficacy. Chapter 1 is an introduction to the basis of this study and problems that make this study relevant. Additionally, I explain the purpose of this study, the research questions, the nature of the study, operational definitions, assumptions, the significance of the study, and the expected limitations.

Background

The way individuals socialize has evolved to include a newer form of socialization: social media. Social media steadily became a popular form of socialization and communication after 2004 when the launch of FB occurred (Anderson, Fagan, Woodnutt, & Chamorro-Premuzic, 2012). FB is one of many different social networking sites (SNSs) that have been providing individuals of all ages a virtual avenue to present themselves and establish or maintain relationships with pre-existing or new friends (Anderson et al., 2012). With approximately 1.86 billion users internationally as of December 2016 (FB, 2016), FB remains one of the most popular SNSs among all users world-wide (Anderson et al., 2012).

Due to the widespread use of SNSs, researchers have engaged in considerable debate regarding the consequences social media has on individual lives, investigating many areas (Anderson et al., 2012) such as personality traits (Caci, Cardaci, Tabacchi, & Scrima, 2014), relationship formation and satisfaction (Barker, 2012), identity construction (Mehdizadeh, 2010), psychological and emotional well-being (Ristau, 2011), addiction tendencies (Wilson, Fornasier, & White, 2010), and privacy (Chakraborty, Vishik, & Rao, 2013). However, one area that has limited research is FB use among baby boomers and how it can be used to address loneliness and socialization efficacy.

The cohort of babies born after World War II, between the years 1946 and 1964 (Colby & Ortman, 2014), are referred to as baby boomers and are among those older adults that are using FB as a way of socializing. The baby boomer generation includes a total of 72.5 million individuals born in the time after World War II (Colby & Ortman, 2014). Researchers have estimated three quarters of baby boomers are using some form of technology (Lane, 2012), which includes using FB for socialization. This would insinuate that a total of almost 54.5 million baby boomers are using some technology in their daily lives. With the increase in overall FB and technology use, the current trends of baby boomer FB use and the impact on other areas of their lives is still being questioned.

The baby boomer generation will face many problems as they enter late adulthood. As health concerns grow, researchers have found baby boomers to experience higher rates of chronic disabilities and long-term care needs (Ozanne, 2009). Chronic

illness can factor into the perceived loneliness of baby boomers, as adults who suffer from chronic illness tend to experience higher rates of loneliness (Shankar et al., 2011). Other problems for baby boomers include addiction that often goes undiagnosed (Babatunde, Outlaw, Forbes, & Gay, 2014), increased suicide rates as later life progresses (Monette, 2012), financial concerns, and increased numbers living alone in isolation due to the high divorce rates and spousal death (Ozanne, 2009). Researchers have found that loneliness not only increases with age but is impacted by the many problems the baby boomers face (Shankar et al., 2011). Additionally, loneliness has been identified as one of the most debilitating problems any individual can face (Gunay, 2012). Thus, most individuals with emotional concerns, like loneliness, use SNSs to connect to others and make friends (Gowen, Deschaine, Gruttadara, & Markey, 2012). Despite the abundance of research on the baby boomer generation, more empirical research regarding their FB use can shed light into ways to improve potential risk of loneliness as they age and are at increased risk for isolation.

Socialization is largely impacted by a person's social settings, influence of others, and cultural changes across a lifetime (Sadat, Ahmed, & Mohiuddin, 2014).

Socialization can be described as the development of the values and beliefs from an individual's social environment for the purpose of gaining social skills appropriate to engage in an individual's culture (Sadat et al., 2014). Social skills develop across the lifespan and are influenced by any change in societal norms (Sadat et al., 2014). Social relationships have been found to decrease mental health symptoms in individuals suffering from mental disorders (Gunay, 2012). Additionally, researchers postulated that

SNSs are used by adolescents and young adults to facilitate active, face-to-face relationships to address concerns with perceived loneliness and view of self (Ivcevic & Ambady, 2013), which suggests a relationship between offline and online behaviors. In addition to this research, Chang, Choi, Bazarova, & Lóckenhoff, (2015) found that social motivation, referred to as the desire to socialize, evolves across the lifespan and can vary across the different stages of development. This implies social relationships are used to fulfill individual social goals within society's norms (Chang et al., 2015). With FB as a source of socialization, many individuals have to resocialize and learn a new norm for socialization to meet individual social goals (Sadat et al., 2014). Therefore, socialization occurs in an attempt to successfully participate in a person's social setting, and Internet use, including FB, is used to achieve this goal (Gunay, 2012).

Problem Statement

Baby boomers as a cohort will experience generational problems as they age and enter late adulthood (Ozanne, 2009). These older adults are concerned about their overall health and will potentially live longer with medical advances (Monette, 2012). However, many illnesses become chronic due to a lack of a cure and despite medical advances, chronic illness is a proven factor related to increased loneliness (Barlow, Liu, & Wrosch, 2015). Additionally, this generation is more likely to live alone than previous generations due to the high rates of divorce (Ozanne, 2009). Due to this cohort's lifestyle choices, substance abuse is another generational problem affecting baby boomers—a condition that can be a risk factor for increased loneliness (Babatunde et al., 2014). Suicide rates also have increased for baby boomers, while the rate has decreased for all

other age cohorts (Monette, 2012). Like suicide and other risk factors, baby boomers are susceptible to many factors that make their overall perceived loneliness and socialization efficacy high.

Loneliness and socialization efficacy have been linked empirically and are impacted by the problems baby boomers face. Aging and chronic illnesses have been linked to higher rates of loneliness over time (Barlow et al., 2015). Baby boomers are more vulnerable to chronic illnesses, including pain, chronic ailments, and acute illnesses (Maust, Kales, and Blow, 2015). Loneliness has been connected to diagnoses such as depression, substance abuse, suicide, and overall mortality (Jin, 2013), all of which have been linked back to the baby boomer generation. This can also make baby boomers more at risk of being socially isolated (Shankar et al., 2011); loneliness combined with social isolation may impact an older adults' health, particularly for inactivity, smoking, and risk for developing further health problems (Shankar et al., 2011). The research on the link between loneliness, social isolation, and health risks supports the need for additional support for baby boomers who do report isolation (Shankar et al., 2011). Social isolation can impact an individual's socialization efficacy, the ability to feel good about socialization skills and contentment with level of socialization (Sadat et al., 2014), which may also be a concern for perceived loneliness as individuals age. With loneliness and social isolation sharing a close relationship with health concerns among baby boomers, it is possible that loneliness and socialization efficacy contribute to the many problems this generation faces.

With loneliness and social isolation as concerns for baby boomers, it is possible that SNSs like FB are being used to alleviate these stressors. FB has gained in popularity and international use since its creation in 2004 (Anderson et al., 2012). In recent years, baby boomers have begun using FB for communication and socialization more than any other cohort (Grosik, 2013). Approximately 67% of adults in the United States are using FB as their main SNS, with half of all baby boomers having an account (Grosik, 2013; Song et al., 2014). Increased FB use has allowed people from all geographical locations and personal interests to connect and facilitate a community within social relationships (Gunay, 2012). Thus, baby boomers are using FB into their retirement and are reconnecting with individuals they knew from their past (Anderson et al., 2012; Barker, 2012; Chakraborty et al., 2013). With the problems associated with loneliness and lack of socialization, more needs to be understood about FB and the potential implications its use may have on baby boomers.

Purpose of the Study

The purpose of this quantitative study was to explore the relationship among FB use, loneliness, and socialization efficacy among baby boomers. I hypothesized that those who use FB more frequently would report less loneliness and more socialization efficacy. To address this relationship, FB usage, the independent variable, was decoded through an analysis of (a) the number of photos that are uploaded, (b) the number of posted links that are shared from others' posts, (c) the number of status updates, (d) the number of posts tagging other FB users, and (e) the number of FB friends. Additionally,

overall FB use was examined as a predictor of socialization efficacy and loneliness determined from self-reports.

Research Questions and Hypotheses

The current study was designed to determine if FB use can predict loneliness and socialization efficacy. FB use consisted of five different variables, which included (a) the number of photos that are uploaded, (b) the number of posted links that are shared from others' posts, (c) the number of status updates, (d) the number of posts tagging other FB users, and (e) the number of FB friends. The dependent variables were loneliness and socialization efficacy. Additionally, each form of FB use was tested to determine if they predict loneliness or socialization efficacy.

Research Question 1: Do the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends predict loneliness, as measured by the Revised UCLA Loneliness Scale?

Null Hypothesis 1 (H_{01}): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will not predict loneliness, as measured by the Revised UCLA Loneliness Scale.

Alternative Hypothesis 1 (H_{a1}): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will predict loneliness, as measured by Revised UCLA Loneliness Scale scores.

Research Question 2: Do the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends predict socialization efficacy, as measured by the Social Skill Scale?

Null Hypothesis 2 (H_02): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will not predict socialization efficacy, as measured by the Social Skill Scale.

Alternative Hypothesis 2 (H_a2): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will predict socialization efficacy, as measured by the Social Skill Scale scores.

Nature of the Study

The nature of this study was quantitative with the goal of determining if FB usage predicts loneliness and socialization efficacy. The method to uncover this relationship was chosen due to the multiple studies related to loneliness and socialization efficacy using the same scales—the Revised UCLA Loneliness Scale and the Social Skill Scale. These scales have proven internal validity that make them viable choices. Additionally, FB use was quantified through the number of the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends. FB use could have been quantified by the number of words written and posted on the users' page, but I

was interested in the connections between the participants and their FB friends, which can be better examined through the types of posts the user engages in. The data was then analyzed through a correlational design to assess if FB use can predict loneliness and socialization efficacy. FB use could have been influenced by an individual's overall feelings of loneliness and socialization efficacy.

The current study was quantitative in nature with the main statistical analysis being a stepwise linear regression. The stepwise regression allowed me to begin looking at all five quantifiers for FB use and then eliminate these quantifiers based on the strength of relation to loneliness and socialization efficacy. A stepwise multiple regression analysis would explain the change in one variable attributable to another based on the exact degree to which the slope exists and determine if FB significantly predicts the variables. This process yielded the combination of quantifiers that is the most significant predictor of the dependent variables. This method of analysis was chosen over other linear regressions, as the stepwise allowed for a more thorough investigation of the individual variables included in FB use.

The participants of this study included individuals in the baby boomer generation age 52 to 70 who currently have FB accounts. Participants' FB pages were analyzed for overall usage. They were surveyed for perceived loneliness from the Revised UCLA Loneliness Scale and for perceived socialization efficacy from the Social Skill Scale. Once all questionnaires were completed via the Internet, the data was managed through Microsoft Excel. The data was then imported into SPSS for statistical analysis, which will be discussed further in Chapter 4.

Theoretical Framework

Social learning theory (SLT) posits a conceptual framework regarding the psychosocial process in interpersonal behavior and reinforcement of desired outcomes (Bandura, 2001). In SLT, Bandura (1979) explained how individuals can obtain desired outcomes for behavior, which is typically influenced by an individual's behavior, cognitions, personal influences, and environmental factors. Learning takes place from observing experiences of others and often reinforced by others' reactions to a person's behavior (Bandura, 1977). SLT has been used to explain social media use through the communication forums informing, motivating, and influencing participants (Bandura, 2001). Individual online experiences can influence and even change the behaviors of others, with both SLT and social media being entrenched in social environment (Bandura, 2001).

The social learning process exists in using FB as a form of socialization. The process of using FB is learned through other FB friends and online behaviors can be reinforced, as users seek to reach desired social behaviors. Socialization, in general, is the process of learning social norms and values through the connections of societal members (Sadat et al., 2014). Along with individuals learning how to socialize via social media, online behaviors can be reinforced through the positive reaction of other online users on a person's page. FB users can also learn about new places to try, recommendations for reputable business needs, and ideal places for face-to-face social exchanges. Thus, SLT and reinforcement can influence FB use and the socialization acceptable for online communication.

Operational Definitions

Friending: Adding a person to FB friends, which allows that person to view someone's activity and profile (FB, 2016).

Loneliness: An individual's perception of social isolation, causing negative emotions due to the inconsistency between one's desired and current number of quality relationships in an individual's life (Barlow et al., 2015).

Profile picture: The picture that a person chooses to use as an expression of themselves, which can be viewed by friends (FB, 2016).

Shared content: The process of taking an existing post from another FB page and adding it to a person's own FB page (FB, 2016).

Status update: The ability to update a FB page, which allows a person's friends to comment on their thoughts, whereabouts, or important information. Updates are typically short and available for viewing on the homepage in the newsfeed (Rouse, 2010).

Socialization efficacy: The lifelong process of learning social norms, customs, and beliefs for a person's social environment and how well people believes their skills and habits allow them to participate in their own society (Sadat et al., 2014).

Social media: "A 21st century term used to broadly define a variety of networked tools or technologies that emphasizes the social aspects of the Internet as a channel for communication, collaboration, and creative expression" (Dabbagh, & Kitsantas, 2011).

Tagging: The act of including a friend's name in a post, so that someone's updated post will show up in their newsfeed as well (FB, 2016).

Unfriending: To click on the “friends” icon on a FB friends page and then hitting the “unfriend” icon, which will then terminate the ability of that user to view someone’s FB profile anymore (FB, 2016).

Significance

There has been little research regarding the baby boomer generation and an understanding of the relationship between FB, loneliness, and socialization efficacy, specifically research regarding this aged cohort (Murphy, 2012). The results of this study provided much needed insights into the psychological role social media plays regarding reports of loneliness and socialization efficacy among baby boomers. Results from this research provide knowledge on how the baby boomers can use FB to prevent or decrease loneliness by having an alternative way to communicate (Caci et al., 2014). As the societal values and norms change, it is important to understand how these changes can benefit the population through communication and connection forums like FB.

Assumptions

I made several assumptions in this study. The first assumption was that the participants represent themselves honestly on their FB page. Second, it was assumed that the participants will not only understand the questions on the Revised UCLA Loneliness Scale and the Social Skill Scale, but that they were also be honest in the way they answer the questions. Finally, the last assumption was that participant privacy settings will remain the same during participation in the current study, as this could alter the access the research has to the participants’ previous timeline feed.

Delimitations

In the current study, I set out to uncover if FB use predicts perceived loneliness and socialization efficacy among the baby boomer generation. Baby boomers were the targeted population, as there is little research regarding the impact of FB use on mental health available for this cohort. Murphy (2012) recognized the potential benefits and reported the importance of age in deciphering the factors that encourage FB use. This research also supported the need to understand those that use FB and the positive gains from its use (Murphy, 2012). Older adults are showing increases in SNS use, with approximately 46% of adults in the baby boomer generation (Chang et al., 2015). The majority of the existing research includes participants that are younger, thus the baby boomer population will add to the knowledge base.

The methodology of the current study yielded some generalizability for SNSs. This study focused on FB as the SNS, as opposed to Twitter, Instagram, or other SNSs. FB has considerably higher total users than MySpace, LinkedIn, and Twitter (Nadkarni & Hofmann, 2012), with over 1.86 billion users (FB, 2016). Additionally, FB is the second most frequented website on the Internet next to Google (Giota & Klefittaras, 2013). FB has been found easy to use and convenient to share information making it a viable SNSs to research among the older population (Christofides, Muise, & Desmarais, 2009). The use of FB as the SNS variable did not hinder the generalizability of the results.

I addressed loneliness and socialization efficacy but did not focus on mental illness. It has been found that individuals with mental illness tend to report higher levels of perceived loneliness (Perese & Wolf, 2005). It is possible that mental illness could

have influenced the results of the study; however, it cannot be assumed at all baby boomer participants who report loneliness will also have mental illness. Thus, mental illness could be a control variable.

Limitations

The present study had several limitations. First, due to the recruitment methods, I used a convenience sample, which can limit generalizability due to geographical limitations of the participants. A convenience sampling method for participant recruitment means the results are not fully generalizable to all baby boomers of all nationalities. Despite the geographical limitation, the results are generalizable among baby boomers living in the United States. Due to the nature of FB, it was impossible to manage if participants share their participation in the study with others. This may have encouraged others to participate as well, which could impact the ability to generalize the findings. To make the finding more generalizable, it would have been ideal to randomly friend individuals for possible involvement, however, FB has a strict policy against randomly friending other users. Due to the nature of FB, there was a risk that participants did not present themselves honestly and accurately. An additional limitation was the self-reporting nature of the measurement scales. Self-report measures are subject to participants responding in a socially desirable manner. In short, instead of the honest response, participants may have chosen a response that they thought was more accepted or positive. Finally, a limitation to a correlational design was the lack of causation even if significant relationships exist among the variables.

Summary

In recent years, FB has become a global socialization forum. Researchers have begun researching this phenomenon and the psychological impact its use has on a person. FB has grown in popularity due to its ease of use and accessibility. This study expanded empirical findings by expanding what is understood regarding FB use, loneliness, and socialization efficacy among baby boomers, a growing user population. In Chapter 2, I will address the current literature on FB, loneliness, socialization efficacy, and the problems that exist for baby boomers. This in-depth literary review provided the basis for the study and helps to support the need for this study to fill the literary gap.

Chapter 2: Literature Review

Introduction

In this chapter, I will discuss the existing research related to FB as well as the findings related to loneliness and socialization efficacy. I also present previous research on the definition of loneliness and socialization efficacy. I examine the current findings related to SNSs like FB, including opposing ideas. This research examination provided the foundation for the current study.

The majority of the research on FB has suggested the benefits and limitations to continued use. Despite the abundance of research, the population researched is typically among the younger generations, which supports the need to further explore this phenomenon among the aging. FB, loneliness, and socialization efficacy may look differently for older adults. This study can make findings more generalizable by increasing knowledge on this rarely researched population group.

Content and Search Strategy

The research gathered for this literary review was collected from peer-reviewed articles and books from multiple sources. Scholarly literature on FB and social media first appeared shortly after the introduction of the site, which was launched on February 4, 2004 (Andagan, Woodnutt, & Chamorro-Premuzic, 2012), thus, research was found after 2004. Literary searches were conducted through the Walden University library from ProQuest, PsychBOOKS, PsychINFO, PsychARTICLES, PsychEXTRA, and PsycTESTS. Google scholar was also a source for the gathering of current literature. Multiple combinations of key terms were used to obtain the research for this literary

review, which included *baby boomers, Facebook, social media, social networking sites, loneliness, socialization, socialization efficacy, generational problems, and older adults.*

Electronic books related to the varied topics were also used to provide a continuation of information on the related concepts.

The literature review was based on the foundation of the methods, frameworks, and significant findings of current research in this area. By assessing for the methods and theoretical framework used in previous research, I was able to sufficiently explain the basis of this study. In order to create a comprehensive study, the literature review helped to make sense of the previous research that highlighted the patterns between FB, loneliness, and socialization efficacy. I assessed scholarly findings in an attempt to explore theory, methodology, and findings.

Theoretical Framework

Social Learning Theory

SLT provides a conceptual framework to help understand psychosocial processes that influence individual behavior and encourage the development of desired outcomes (Bandura, 2001). To reach these desired outcomes in behavior, learning takes place through a person's behavior, cognitions, personal influences, and environmental factors, which are all intermingled (Bandura, 1979). According to Bandura (1977), new behaviors are learned from observing the positive experiences of others. As these positive experiences relate to social media, the communication forums inform, motivate, and influence participants (Bandura, 2001). Individuals tend to make decisions and be motivated toward desired outcomes based on the influence of others, which are learned

through behaviors like imitation, observational learning, peer or parental influence, or learning (Gariepy et al., 2014). Desired behaviors can be influenced by knowledge of things not personally experienced but through others' experiences (Bandura, 1979). With the strong influence of social media, the online experiences of others can change the behaviors of others due to change being rooted in social structure (Bandura, 2001).

Typically, humans behave in a way to reach a goal, meaning behaviors tend to be goal directed (Bandura, 1979). These goals can be achieved through the outcome of consequences, which ultimately regulates behavior (Bandura, 1979). To achieve goal behaviors, individuals will link causal relationships between personal, behavioral, and environmental factors (Bandura, 2001). Individuals will be able to regulate their own behaviors through setting individual goals and evaluating the reactions of others on individual presentation of those behaviors (Bandura, 1977). Bandura (2001) describes self-regulation among online users as motivation toward desired goals based on communication interactions from people within their social network. Consequently, the learning process is self-regulated and social media allows for learning to occur on demand (Dabbagh & Kitsantas, 2011). Based off human ability to have goal directed behaviors and self-regulate external response, SLT was the foundation for this study because it reinforces the ability of individuals to learn successful, goal-directed behavior from others and illustrate it in order to obtain similar success.

Current Example of SLT

Research on social learning emphasizes the learning of new behaviors through the process of rewarding and punishing certain behaviors (Bandura, 1962). In fact, many

behaviors would most likely never develop without social response, like language acquisition (Bandura, 1962). Adults who engage in FB and have found it to be a positive experience can share their perceived benefits. Social exchanges can influence individual network circles to develop desired goals to include social media. For example, FB activities like “the spouse challenge” illustrate the social influence of others on online behaviors. FB users post 7 days of pictures of themselves with their spouse to promote love and admiration. Each day that they post, they nominate two of their FB friends to engage in “the spouse challenge” as well. Through their nominations, FB users engage in the socially reinforced, learned activity and encourage others to do so through their nominations. Thus, the “challenge” is advocated among a vast number of FB users. In turn, these users are being socially reinforced by increasing a desired behavior through altering their environment (Bandura, 1962).

Connection to Current Study

FB as a socialization forum, along with the other variables, are learned through the process of social learning. For instance, using FB to reach desired outcomes is learned through the interactions with others and the social reinforcement of online friends. Socialization, in general, is the process of learning social norms and values through the connections of societal members (Sadat et al., 2014). It can be argued that those who are not socially learned about the norms and values are more inclined to experience loneliness than those that learn their norms sufficiently. This implies that SLT impacts an individual’s perceived loneliness, as those that do not have a strong group identity tend to experience more loneliness (Knowles, Haycock, & Shaikh, 2015).

Thus, the basis of SLT connects the variables based on the common relation of socially learning behaviors based off social reinforcement.

Other socially reinforced behaviors can be experienced through FB, like receiving positive feedback on posts whether they are articles, photos, or checking in at a certain location. Additionally, individuals can reconnect with old relationships through the search of individuals or through the search of current friends' connections. FB users can also learn about new places to try, recommendations for reputable business needs, and ideal places for face-to-face social exchanges. Thus, social learning theory and reinforcement can encourage FB use and the type of use on FB engaged in, which can impact a person's perceived loneliness and socialization.

Problems Among Baby Boomers

According to the United States Census, in the year 2029, over 20% of the population will be over the age of 65 years (Colby & Ortman, 2014). The baby boomer generation includes a total of 72.5 million individuals born in the time after World War II (Colby & Ortman, 2014). By 1999, the numbers of baby boomers living in the United States reached almost 79 million, which includes those that migrated from other countries postwar (Colby & Ortman, 2014). The baby boomer cohort has an estimated life expectancy between 82 to 86 years, which is expected to affect the workforce, retirement, and health (Humpel, O'Loughlin, Wells, & Kendig, 2010), as well as other aspects of society. With the growing numbers and increase in life expectancy, this cohort is in need of more care giving and support needs (Vincent, 2010). The growing older population,

due to the baby boomer cohort, will largely impact the family structure and society as a whole (Vincent, 2010).

Baby boomers are one generation that has experienced many societal changes across the years, including television, the end of segregation, and equal rights (Martin & Gentry, 2011). Aging baby boomers are the first cohort to experience changing expectations of what it looks like to grow old with the changing landscape of society (Ray-Mazumder, 2013), including the introduction of Internet technology. Additionally, baby boomers have experienced the increase in use of technology in many facets of life, including personal use (Fingerman, Pillemer, Silverstein, & Sutor, 2012). When assessing social and news resources for the changing society, baby boomers have been found to be more connected and prefer the newspaper as opposed to the Internet (Towner & Munoz, 2016). This preference indicates a favoritism toward the communication styles prevalent during the rearing of the baby boomer generation. Despite the preference, the changing landscape of online society has encouraged numbers reaching three-quarters of baby boomers using some form of technology in their lives, including social media (Lane, 2012). The changes that have occurred in society for baby boomers, along with other generational concerns, have impacted the current trends in research.

Baby boomers as a cohort are experiencing many problems that contribute to loneliness and lack of socialization. For example, as baby boomers reach their 60s, there is a higher chance for these individuals to see an increase in substance use (Choi, DiNitto, & Marti, 2015), mental illness for which they seek counseling services (Scott, Hyer, & McKenzie, 2015), changes in physical health (Shankar et al., 2011), and changes in living

situations (Ozanne, 2009). These issues have been linked to higher levels of loneliness and lack of socialization, presenting a concern for this cohort (Sheridan et al., 2015). By understanding the current problems of this cohort, the present study will further the empirical support regarding the potential relationship between FB, loneliness, and socialization.

Baby Boomers and Mental Health Concerns

The number of older adults with both substance abuse and mental illness is growing as baby boomers reach late adulthood (Choi et al., 2015). Choi et al. (2015) found that adults with heavy alcohol, illicit drug, and tobacco use are more likely to have mental illness as well. Maust et al. (2015) also reported that baby boomers have higher rates of substance abuse, psychiatric disorders, and pain than any other cohort. There has also been an increase in pill addiction due to the accessibility of opiates that have led to an increase in accidental overdose (Hughes & O’Rand, 2000). With this growth in mental health concerns, many adults, typically from the baby boomer generation, are seeking therapy services for problems related to depression and anxiety with empirically supported treatment modalities being the most effective (Scott et al., 2015). Therapy services are also being used in conjunction with psychotropic medication (Maust et al., 2015). Opposing literature reports that some baby boomers may not seek treatment due to having a lack of awareness into pathology symptoms, perceived sense of stigma regarding mental illness, and belief in the ability to handle stressors independently (Choi et al, 2015). Those that do seek treatment for psychiatric concerns are more likely to have substance abuse problems and belong to the baby boomer generation (Choi et al.,

2015). Therefore, research indicates an increase in mental health concerns for the baby boomer cohort.

Another mental health concern is suicide, which is a serious problem across society; however, over time suicide rates have decreased for all age groups except among baby boomers (Monette, 2012). In fact, the rates of suicide among baby boomers has increased for both men and women (Phillips, 2014). The increase in rates began in 1999, with researchers proposing that this increase is unique to this cohort (Phillips, 2014). It is speculated that there are biological, behavioral, and social experiences that have made baby boomers susceptible to the belief that suicide is the only solution to these experiences (Phillips, 2014). The circumstances that have led to the increase in rates are referred to as the “cohort effect” (Hughes & O’Rand, 2000). American researchers predict the increase in suicides among baby boomers will continue to increase, especially among those who are not married and have lower education levels (Monette, 2012). Other factors that may be contributing to successful suicides among baby boomers include rates of chronic illness and high medical care costs (Monette, 2012). Some baby boomers are at higher risk for suicide due to past mental health history or having family or friends who have deceased (Monette, 2012), or risk factors include veterans’ issues (Hughes & O’Rand, 2000). Others are susceptible because of forced retirement, not asking for help, and having minimal social supports (Monette, 2012). Often, those baby boomers with suicidal thinking tend to respond well to treatment (Monette, 2012).

Other factors related to mental illness and substance abuse influence life satisfaction for this generational group. For example, contributing factors for reports of

positive experiences with aging include feeling in control, social support, loneliness, and an overall optimistic view of things (Ray-Mazumder, 2013). Despite the presence of chronic stress, baby boomers who are optimistic tend to report more positive feelings about aging (Ray-Mazumder, 2013), which implies that mental health and aging can be improved by a positive outlook. Additionally, researchers have found that older adults experience less cognitive decline throughout the aging process when they continue to have social connections (Ristau, 2011). Baby boomers are able to combat mental health implications by addressing some of the contributing factors, as they reach higher in age.

Mental illness and substance abuse have been proven to increase as individuals age, thus posing a problem to the baby boomer generation. The potential for increased loneliness and a lack of socialization exists with those suffering from mental illness. More than half of those individuals with mental illness report being lonely, primarily due to the inability to make or keep friends (Perese & Wolf, 2005). The present study will provide more knowledge to the relationship of loneliness and socialization for baby boomers. Additionally, social media could increase socialization and potentially reduce the impact of mental health concerns, which are exacerbated by isolation and loneliness. This will fill the gap in research on baby boomers' FB use, which is important due to the many problems this generation is facing, especially those with mental health concerns, perceived loneliness, and lack of socialization.

Baby Boomers, Marital Relationships, and Living Arrangements

The baby boomer generation is the first cohort to create new societal changes in American culture, including marital relationship and divorce rates (Zhang, Liu, & Yu,

2016). Fingerman et al. (2012) reported that the changes in society and moral standards have changed the expectations on family relationships, which supports the changing landscape of marriage. In fact, one in three baby boomers are not married, with 10% of these individuals having never married (Lin & Brown, 2012). The divorce rate has doubled between 1990 and 2010 for adults, especially those older than 50 years of age (Zhang et al., 2016). With the rise of the divorce rate and the first cohort to have higher numbers to never marry, unmarried baby boomers are at higher risk of economic, social, and health disparities (Lin & Brown, 2012). Consequently, research has been able to indicate that good marriages are related to overall better mental and physical health, fewer problems with overall functioning, and longer life expectancy rates (Ola & Mathur, 2016). With many baby boomers never marrying, cohabitation has evolved as well for this cohort.

The rates of people cohabitation prior to marriage has increased over the years due to the changing landscape of American culture (Zhang et al., 2016). Baby boomers were the first cohort to venture away from traditional values of not entering a sexual relationship before marriage, and many began living with their sexual partner prior to marriage (Hughes & O’Rand, 2000). Due to this shift, the new roles within the family unit have evolved and are not well defined (Hughes & O’Rand, 2000). Despite the changes to the values of marriage and cohabitation, researchers have found those individuals who report overall higher rates of health are more likely to get married and those with less health are more likely to get divorced (Zhang et al., 2016). In fact, a factor related to the decline in health is a marriage ending through divorce or widowhood,

which is more likely to occur as individuals become older adults (Zhang et al., 2016).

This implies that marriage and the support of this type of relationship can combat the risk factors that others are subject to, as they continue to age.

Researchers have an increased interest in understanding what the preference is for housing among baby boomers. Based off the desires of baby boomer adults, most individuals would prefer to live in their family home, as opposed to moving into a retirement community (Eldridge, 2010). Additionally, many still live alone due to high rates of divorce and separation from spouses (Ozanne, 2009). As a cohort, baby boomers had fewer children than their parents, and many live far from their children (Ozanne, 2009), which influences many in this age bracket living alone. Despite the majority preference, some individuals are choosing to move into retirement communities or facilities to help maintain their current lifestyle and maintain some autonomy (Ozanne, 2009). Other trends include more and more generations living together in the same house, due to advances in medicine aiding longer life expectancies (Ozanne, 2009). This can pose problems with the societal change in the view of commitment toward family ties (Ozanne, 2009). With the varied options for housing, many baby boomers prefer to maintain autonomy and independence (Eldridge, 2010), which can be achieved in retirement communities.

There is a group of baby boomers that maintain their marriage across the lifespan and into late adulthood. Many baby boomers will live with their spouse into retirement, but spousal death is a concern among this cohort, as they reach higher ages. An additional factor related to those who experience spousal death is physical health after the

loss, where women tend to do better physically after widowhood (Ristau, 2011). Additionally, men tend to remarry at higher rates than women after the death of a spouse (Ristau, 2011). This raises the question of which living arrangement reduces the risk for decline in overall health, which is still being researched today. As health has been linked to increased loneliness, the marital relationship impacts both current living trends and perceived loneliness and socialization among this cohort. It is possible that FB use could be linked to perceived loneliness and socialization mitigated by current living scenarios.

Baby Boomers and Employment

With the large numbers of baby boomers aging, employment is an area affected by the problems that exist for this cohort. As aging occurs, this generation may become restricted in their careers due to physical health and stress, which may accelerate retirement (Martin & Gentry, 2011). Health is one of the main factors contributing to retirement (Buckley et al., 2013). Chronic illnesses and poor health have ultimately contributed to the exit of almost ten percent of baby boomers, who are no longer employed (Buckley et al., 2013). Thus, with the link between both poor health and no employment, there is concern over how lack of employment may affect overall loneliness and socialization.

Interestingly, the baby boomer generation was the first to see more women who worked outside of the home (Ristau, 2011). With the changing landscape of the employment, many baby boomers, both men and women, are being phased out of the workforce (Ristau, 2011). This transition causes problems with self-identity for both male and female baby boomers, though women tend to adapt better to this scenario

(Ristau, 2011). Despite being phased out of the careers, many baby boomers report that they will continue working in some capacity in the workforce after retirement (Ristau, 2011). This implies baby boomers will attempt to stay active in the community to avoid social isolation and increased loneliness. Another way to potentially combat lack of employment with age would be to use FB and other online forums.

Baby Boomers and Loneliness

As individuals age and begin to experience more chronic illness, the rates of loneliness increase steadily over time (Barlow et al., 2015). Baby boomers are reporting higher rates of medical concerns than their counterparts, including pain, chronic ailments, and acute illnesses (Maust et al., 2015). When looking at loneliness, isolation, and health, Shankar et al. (2011) found that both loneliness and isolation can have a negative effect on health. Additionally, baby boomers are now more susceptible to the risk of being socially isolated, which can encourage feelings of loneliness (Shankar et al., 2011). This implies a reciprocal relationship between loneliness and isolation with health. Those engaging in coping and self-protection strategies are less effected by chronic health issues and experience less rates of loneliness (Barlow et al., 2015). However, there remains a percentage of the baby boomer population still reporting loneliness.

Factors related to loneliness include social isolation, which can affect other areas of functioning for this cohort. Loneliness combined with social isolation may impact an older adults' health, particularly for inactivity, smoking, and risk for developing further health problems (Shankar et al., 2011). Researchers focused on the link between loneliness, social isolation, and health risks support the need for additional support for

baby boomers who do report isolation (Shankar et al., 2011). There are other health related impacts of loneliness. For example, social isolation in later adulthood increases the risk for dementia by sixty percent (Ristau, 2011). To combat loneliness, researchers found that individuals that are more socially connected are living longer, and have lower levels of cortisol, which is essential for healthy cognitive functioning (Ristau, 2011). Loneliness has also been connected to diagnoses, such as depression, substance abuse, suicide and overall mortality (Jin, 2013). Hence, engaging in coping and increased socialization are ways of decreasing loneliness, which is a promising finding for this cohort.

Loneliness poses a significant problem to the aging culture, with potential for long-term damage to this population. I served to gain knowledge into FB use among reports of loneliness. These findings helped fund the available information on the ability to understand FB use as it pertains to loneliness. FB has the potential to be another socialization facet to be learned among baby boomers, as socialization norms change. I addressed this through expanding what is known about the relationship between loneliness, socialization, and FB use.

Existing Research Facebook and Social Networking Sites

Since the unveiling of FB in 2004, the site has continued to grow and gain popularity, with the site going international in a short time (Anderson et al., 2012). It is now considered “one of the most trafficked sites in the world” (Anderson et al., 2012). An astounding 67% of adults in the United States prefer FB as their main SNS (Song et al., & Allen, 2014). With the introduction of this newer phenomenon, researchers have

become increasingly interested in the overall influence SNSs has on society and the individual, as a whole. Not surprisingly, there has been some consistent findings and some conflictual findings.

FB has continued to grow with an approximate 1.13 billion active daily users, as of June 2016 (FB, 2016). The Internet and virtual communication has allowed people from all geographical locations and personal interests to connect and facilitate a community feel within social relationships (Gunay, 2012). SNSs, like FB, can be considered a blend between both mass and interpersonal communication forms that connect closer, personal relationships and enhance belonging to communities and groups of interest (Lemieux, Lajoie, & Trainor, 2013). One of the ways individuals are able to communicate, gain belonging, and represent their image online is through the personal profile page. Regarding self-promotion on the profile page, narcissistic individuals who also report low self-esteem tend to have higher usage rates and tendencies to self-promote (Mehdizadeh, 2010). These findings yield an understanding of impression management and identity representation that exists among online communication forums. Researchers work to understand the types of people who engage in this form of communication and the types of relationships that are facilitated via SNSs.

One area of SNSs, more specifically FB, that has received an abundance of attention is deciphering those personality traits associated with FB use. When assessing whether or not personality variables can predict aspects of FB use, Caci et al. (2014) found that those who are open tend to adopt FB as a communication source earlier and have more friends overall. Individuals who are neurotic tend to stay online longer during

each session and get on more frequently throughout the day (Caci et al., 2014). Conscientious individuals have fewer, shorter sessions and tend to have less friends overall (Caci et al., 2014). Furthermore, researchers found that FB activity is shown to positively correlate with neuroticism and extraversion personality traits, while activity negatively correlates with conscientiousness (Andreassen, Torsheim, Brunborg, & Pallesen, 2012). Wilson et al. (2010) found that extroverted and less unconscientious individuals are more likely to use SNSs at higher rates, which can lead to addictive use. Furthermore, those individuals that score high in extroversion tend to belong to more FB groups than those individuals that tend to be introverted (Ross et al., 2009). Other researchers found extroverted individuals also tend to use FB more often (Wilson et al., 2009), which coincides with the potential for addictive use, also supported by the research of Andreassen et al., 2012.

Research on personality traits and other areas of FB use have been explored with concerns to messaging and posting. When studying FB, social networking and instant messaging are typically done by individuals that are found to be open, extraverted, and neurotic (Correa, Hinsley, & de Zuñiga, 2010). Also, looking at personality traits, Karl, Peluchette, and Schlaegel (2010) found less problematic posts in individuals who were found to be high on conscientiousness and agreeableness and low on neuroticism. Regarding relationships, Hsu, Wang, and Tai (2011) found that FB is a forum allowing new friendships to become better acquainted, while close relationships tend to maintain their strength through activities outside of the online setting. When assessing the differences between online and offline behavior, Ivcevic and Ambady (2013) found there is a

significant connection between everyday traits and interactions with FB behavior. These findings have added to the information known regarding trends in FB use.

Despite some consensus on SNSs and FB, some researchers found contradictory results. Reporting opposing findings, Rosset al. (2009) found that personality was not as important to levels of usage, but more the motivation to communicate with others, gain a social support system, and to provide some entertainment value to daily activities. Other conflict exists regarding whether or not SNSs improve or decrease overall well-being (Verduyn et al., 2015). Verduyn et al. (2015) postulated the difference between active and passive SNS usage to determine the well-being of the participants. Active use refers to the direct exchanges that occur between individuals, while passive use refers to tasks completed via SNS without the direct contact of others (Verduyn et al., 2015).

Researchers indicate that participants spend 50% more time on SNS with passive use and reported negative well-being, which indicates that passive use has a negative impact on well-being (Verduyn et al., 2015). It is not known what the motivations are for those that continue to use FB passively. It could be due to the benefits received through direct usage outweigh the limitations of passive usage. In an attempt to solve the inconsistent findings on the positive and negative effects of increased FB usage, Chen and Lee (2013) found that FB interaction and psychological well-being tend to be negatively correlated. Additionally, FB and self-esteem are also negatively correlated, which suggests communication overload links these two concepts (Chen & Lee, 2013). It is apparent that conflict exists regarding the overall perception of FB and SNSs, which can be understood more through this study by uncovering how FB is being used by baby boomers.

Facebook and Baby Boomers

Though young adults are the largest user group of FB, baby boomers are adopting FB as a form of communication at higher rates than any other cohort (Grosik, 2013). Currently, almost half of the baby boomer cohort have a FB account (Grosik, 2013), which is a 34% increase as of 2010 (Barker, 2012). In fact, baby boomers used to share the same Internet usage as those adults over the age of 80 years, however the numbers have drastically increased to include nearly three-quarters of baby boomers utilizing Internet technology (Lane, 2012). Factors related to the adoption of FB include socioeconomic status and communication factors (Grosik, 2013). Grosik (2013) found baby boomers who regularly use technology like texting and videoconferencing are more likely to utilize FB as well. FB use is an activity that baby boomers are adding to their retirement lifestyle (Chakraborty et al., 2013).

When accessing FB, one factor to consider regarding baby boomer use is computer literacy, the ability to navigate and use the Internet effectively (Tennant et al., 2015). It has been established that baby boomers are at risk for chronic disease, social isolation, and poor health outcomes, which influences social media use to locate health information (Tennant et al., 2015). Essentially, baby boomers are also using the Internet and social media to gather knowledge with the baby boomer user profile, typically including higher education, skills to navigate the Internet, employment, and having family Internet users (Willis, 2006). Tennant et al. (2015) found those baby boomers with more computer education were better able to show computer literacy. Chadwick-Diaz, Bergel, and Tullis (2007) emphasized the versatility of the newer Internet

technologies allow developers to learn the patterns of “senior surfers”, and apply those patterns to improve computer literacy for baby boomers. Additionally, those older adults that are not computer literate or need additional skills have shown success in learning these skills through blended learning with face to face instruction and hands on employment of what was instructed (Willis, 2006). This implies computer literacy can improve from the foundation of ideologies found in SLT and increase baby boomer usage percentages.

When estimating usage for more specific age ranges, recent numbers regarding SNSs illustrate 65% of adults 50-64 years and 46% of 65 years and older are on social networks (Chang et al., 2015). With the rise in older adult usage of FB, researchers have looked at different factors associated with FB and other SNSs usage. For example, researchers found that older adults tend to have smaller friend networks via SNSs, but that the majority of their online friends are considered to be actual friends in person as well (Chang et al., 2015). This is compared to younger adults, which may be an adaptive response to the changing societal makeup regarding online communications (Chang et al., 2015). Other studies have looked at self-esteem and group identification. When comparing young adults to baby boomer adults, Barker (2012) found that those with negative self-esteem use SNSs as a form of social compensation. Additionally, regardless of age, individuals with high self-esteem and group identity are more likely to use SNSs to enhance peer communication and for socialization enhancement (Barker, 2012). Therefore, baby boomers utilize SNSs to reconnect with individuals they knew from their past (Anderson et al., 2012; Barker, 2012).

With the empirical trends in the literature, SNSs have been linked to both an increase (Jin, 2013) and decrease (Lemieux et al., 2013) in loneliness and socialization. Controversy exists regarding the positive or negative impact SNSs, including FB, has on loneliness, a problem for the baby boomer (Lou, Yan, Nickerson, & McMorris, 2012). The majority of the empirical findings on SNSs and FB are for younger populations, which lends to the question on the relationship of FB among baby boomers. Thus, expanding the research on FB to include the aging baby boomers can provide further information on how FB is related to some of the problems that exists for this aged cohort.

To explore the impact of FB use, researchers have gone as far as to observe privacy principles and potential benefits of FB use. Some researchers found baby boomers are more likely to share information in the same way of their friends, like location, pictures, and other personal identifying information (Chakraborty et al., 2013), which infers SLT can influence how profiles are set up, as well as other usage tendencies. This research suggests that baby boomers can learn privacy practices to ensure safety of use for the newer technology practice (Chakraborty et al., 2013). Not only can social media be used to reconnect with past relationships, seek support, and bridge generation gaps, but it can be used to improve brain health through Internet searching and activating neural connections (Ristau, 2011). Despite the controversy regarding the implications of high FB usage, researchers have been able to uncover positive benefits to its use.

Facebook and Socialization

Social settings and cultural changes can impact an individual's personality over the life span, and socializing experiences, in turn, allow the learning process for

navigating social relationships (Sadat et al., 2014). Social support can decrease mental health symptoms in individuals suffering from mental disorders, (Gunay, 2012). Online users have the ability to participate and socialize with the people and groups that interest them (Gunay, 2012). Internet use had been linked to the result of loneliness, as well as high amounts of use promoting high levels of both depression and loneliness (Gunay, 2012). Gunay (2012) found that Internet use helped to alleviate loneliness, which has been identified as one of the most debilitating experiences for the human population. With FB as a source of socialization, many individuals have to resocialize, which is the process of learning new norms of socialization while not utilizing old norms (Sadat et al., 2014). Therefore, socialization occurs in an attempt to obtain social support, and Internet use is seen as a platform to seek that social support (Gunay, 2012). SNSs also allow for another forum to gain group identity and social identity gratification, which is important to social belonging and having a positive social environment (Barker, 2012). However, it is hard to determine what degree of Internet use is healthy and what is pathological (Gunay, 2012).

Social behaviors have been addressed empirically, in an attempt to determine the consistency between presentation and behavior both online and offline. Researchers also found that adolescents and young adults that identify as feeling lonely and view themselves as less skillful regarding socialization tend to use social media to encourage the development of active relationships (Ivcevic & Ambady, 2013), which implies offline behaviors promote online interaction. In specifics, researchers found that behavior is consistent and stable over time, and behavior is consistent between participants' social

behavior both online and offline (Ivcevic & Ambady, 2013). The behaviors can include the types of posts that are posted with similar verbiage, those who post status updates, and attention seeking behaviors to name a few online behaviors (Ivcevic & Ambady, 2013). Ivcevic and Ambady (2012) were also interested in the perception of FB accounts based on behavioral presentation. By assessing individual descriptions and pictures of profiles, researchers found these descriptors as instrumental in others' perceptions of those FB users (Ivcevic & Ambady, 2012). When viewing these profiles, researchers were able to find that stranger ratings were able to predict online behaviors for those individuals (Ivcevic & Ambady, 2012). Individual perceptions of profile pages also correlated with believing the individual being viewed was "happier" and "more successful" than the individual viewing the page (Vogel, Rose, Roberts, & Ecklers, 2014). Interestingly, these impressions were consistent among the different participants' perceptions of the profile pages viewed (Ivcevic & Ambady, 2012). This implies that individual presentation is relatively transparent and reliable ways of classifying FB users. All things considered, socialization online and offline is moderated by one's socialization efficacy and shows consistency across means in one's behaviors.

Socialization is largely influenced by our social surroundings and the influence of others. Essentially, socialization is the process of developing and learning the norms and values of an individual's culture, in an attempt to gain the skills necessary for participation in an individual's society (Sadat et al., 2014). This lifelong journey is unique to each culture and society, and the socialization process is a learned process that is influential towards socializing and personality development (Sadat et al., 2014). In

fact, Randall, Pauley, and Culley (2015) found that baby boomer women are highly influenced by their children when navigating FB use, which implies a social learning component to FB socialization. Furthermore, social motivation, or the desire to socialize, changes with age, as individuals enter different stages of their life (Chang et al., 2015). Older adults are typically more aware of their time limitations, which promotes the need for positive and meaningful socialization (Chang et al., 2015). Thus, older adults are likely to socialize on FB with their close friends, serving as an extension to their positive face to face relationships. These relationships provide individuals important resources to satisfy individual social goals within their society's socialization norms (Chang et al., 2015).

In relation to the present study, it appears that socialization norms have evolved with the introduction of FB and other SNSs. I uncovered the role FB plays in baby boomer socialization. The findings on the relationship between between FB use and socialization has brought understanding to the impact of societal socialization norms and current socialization practices.

Facebook and Loneliness

Controversy exists on whether or not increased Internet use can increase loneliness and social isolation, or aid in creating more social connections and decrease feelings of isolation (Lou et al., 2012). Theories exist to explain online loneliness, which include the rich get richer and the social compensation theory (Jin, 2013). The "rich get richer" emphasizes that those who socialize frequently tend to find more benefits in Internet use (Jin, 2013). The social compensation theory posits those with less social

interactions find more benefits with Internet use (Jin, 2013). Barker (2012) found that those with negative self-esteem use SNSs for social compensation, which is consistent with social compensation theory. However, it continues to not be clear as to which theory accurately depicts Internet use and loneliness.

A contributor to the conflicting empirical findings is the fact that loneliness is typically defined differently among research. Some researchers have defined loneliness as an unpleasant incongruity between an individual's social circle and what that individual would prefer for their social circle (Lemieux et al., 2013). Additionally, it is noted that many lonely individuals will try different methods to decrease feelings of loneliness (Lemieux et al., 2013). Others define loneliness similarly, but emphasize that loneliness causes some distress, low self-efficacy, and feelings on awkwardness (Lou et al., 2012). With a more universal definition for loneliness, findings could potentially show some consistency.

There is also some discussion on whether or not loneliness motivates individuals to use FB more readily (Knowles et al., 2015). Researchers have also looked into the need to belong as a motivator for FB use, with an emphasis on being excluded (Knowles et al., 2015). Knowles et al. (2015) found that when excluded from a desired group, individuals will engage in more spontaneous computer communication and that interacting on FB can improve social interactions following an incident of exclusion. Furthermore, those individuals that seek to belong are more likely to befriend strangers via FB than those that do not demonstrate a need to belong (Knowles et al., 2015). This research indicates that there is a strong connection to FB and social needs.

Researchers have discovered how SNSs are being used and the motivations behind individual use, which included trying to alleviate a lack of face-to-face socialization. SNSs can be used as a way to meet an individual's own social needs and can be considered to provide some users gratification (Lemieux et al., 2013). FB may also allow those who are lonely and feel social isolation to serve as a form of socialization and connection (Lemieux et al., 2013). In fact, Lemieux et al. (2013) found that lonely, socially avoidant individuals tend to spend more time on FB than others, possibly to compensate for unhappiness within their interpersonal relationships. Additionally, women felt that FB was a more important part of their everyday life than males did (Lemieux et al., 2013). In an investigation of the relationship between SNS use and psychological well-being among college students, Lou et al. (2012) found the intensity of use on FB was positively correlated to loneliness. Essentially, online communication supplements for contact with family and friends result in less feelings of loneliness (Lou et al., 2012). However, the online relationships were not found to be of significance for the participants (Lou et al., 2012). Specifically, motivation was not found to have an impact on loneliness, nor did loneliness have an impact on the intensity of use or motivation for that use (Lou et al., 2012). Lou et al. (2012) reported that the relationships formed online, due to loneliness, are often later transformed into face-to-face relationships.

Research on disclosures reveals interesting findings on the kind of information shared on SNSs for lonely people and not lonely people. People that are lonely tend to disclose negative things more regularly than positive things compared to people who are

not reported to be lonely (Jin, 2013). Loneliness has also been found to be associated with poor social skills, which could be a result of shyness, low self-esteem, or other environmental factors (Jin, 2013). Additionally, they tend to have less FB friends, though they have been found to be able to socialize in arbitrated atmospheres (Jin, 2013). These disclosures imply the same problems that exist in face-to-face relationships could transfer to online relationships as well. Consequently, Song et al. (2014) found that there is a positive relationship between FB and loneliness, which implies that social compensation theory is valid with individuals using FB as a way to combat social deficits, if social skills can be learned as well as how to use FB. FB might also be able to help those FB users suffering from mental illness, which could include many baby boomer users.

Researchers have worked at uncovering the effects of loneliness on mental health and well-being, in an attempt to improve overall mental health with FB serving as a solution to address loneliness. Sheridan et al. (2015) examined socialization and loneliness with the intention of showing improvement in participant reports. Participants that experience mental illness were asked to engage in leisure activities on a weekly basis with the intervention group receiving a stipend and interaction with a volunteer partner and the control group only receiving the stipend (Sheridan et al., 2015). The findings indicated that overall social functioning improved positively, despite there being no difference between control or intervention groups (Sheridan et al., 2015). More specifically, these mentally ill participants reported a decrease in social loneliness and depressive symptoms with the increase in weekly social interactions (Sheridan et al.,

2015). In other research on loneliness and mental illness, the majority of all individuals with mental illness use SNSs in order to feel connected and make online friends (Gowen et al., 2012). Gowen et al. (2012) also found that these individuals would like there to be SNSs that are geared towards their personal needs, which include decreasing social isolation and providing help for more independent living. These participants reported that SNSs reduced their social isolation, which implies that SNSs can be used to build support network (Gowen et al., 2012).

Loneliness is a strong mitigating factor to unhappiness and lack of socialization as individuals age. I sought to address if loneliness is related to FB use and socialization among baby boomers. With the impact of loneliness on overall well-being and the problem it poses to the baby boomer generation, I researched to add to the understanding of loneliness in relation to changing socialization via FB. Additionally, baby boomers are expected to reach over 20% of the population by the year 2029 (Colby & Ortman, 2014). There is probable cause to believe this research will create social change, due to the vast numbers of individuals that can be helped, based on the growing numbers and increase in life expectancy of this cohort. Essentially, I have the potential to further the fund of knowledge on how to address some of the problems baby boomers face as they continue to age and to reach a vast majority of population.

Summary

Baby boomers are likely to face many generational problems, as they continue to reach older adulthood. Problems exist regarding overall health, mental illness, substance abuse, loneliness, social isolation, and more. As a cohort, this group has seen many

societal changes that have impacted their views about life and the way they interact in society. One major change in society is the addition of social media as a form of communication and socialization. FB has become one of the world's largest social networking site and most widely used online forum among baby boomers. This growing phenomenon and society changing environment has the potential to make a positive impact on society. Despite the positive implication, there are many discrepancies between the empirical findings and little data regarding the baby boomer cohort. I have the potential to fill the gap in the literature by uncovering if a relationship exists between baby boomer FB use and factors of loneliness and socialization efficacy.

Loneliness and a lack of socialization efficacy is experienced within the baby boomer generation, as evidenced by increased isolation throughout aging (Shankar et al., 2011). It is unclear if FB use is correlated with loneliness and socialization efficacy for this population, which could help extend the knowledge on how FB is being used, especially since little research exists among the largest growing population to use SNSs (Grosik, 2013). With an increase in loneliness and social isolation in late adulthood and the increased number of baby boomers using FB, it is possible that there could be implications for this research. Essentially, family, professionals, and peers could provide the social learning environment to teach baby boomers the different ways to utilize FB. The methods to be used in this study will be explained in the next chapter in an attempt to clarify how the variables outlined for potential proposed use among baby boomers.

Chapter 3: Methodology

Introduction

Baby boomers are subject to problems related to loneliness and socialization efficacy problems as they continue to age (Barlow et al., 2015). Researching the relationship between FB and these generational problems allows for a greater understanding of how this population uses FB and if it is used based off loneliness and lack of socialization. In Chapter 3, I explain the methods used to answer the research questions and identify which hypotheses were substantiated or contested. In addition to a detailed explanation of all methods used in this study, I describe the sampling approach, regression analysis, and instrumentation choice to validate the methods. Chapter 3 finishes with a dialogue concerning the ethical implications of this study.

Research Design

A correlational, quantitative research design was used to examine the relationships between FB use, loneliness, and socialization efficacy. This research presented data from a combination of observation and survey methodology, which was appropriate to examine the relationship between the outcome variables and predictor variable. A correlational design allowed for a determination of any relationships that may exist between FB use, loneliness, and socialization efficacy. FB was the only SNS researched due to this site having the most popularity over other SNSs. Due to not having a control group, variables not being altered, and restrictions regarding the ability to randomly select participants, a quantitative, correlational design was chosen over a true experimental design.

Methodology

Sampling Strategy

The participants of this study included individuals in the baby boomer generation age 52 to 70 who currently have FB accounts. Since gender and ethnicity were not variables in this study, all participants within the age bracket were included regardless of gender and ethnicity. Random selection of participants was not possible, as FB restricts randomly contacting its users. FB is designed to recognize the connection between users. If too many random connections occur, the account that is contacting users randomly will be shut down. The participants of this study were a convenience sample from a variety of locations. Advertisements (see Appendix A) were placed at local Veterans offices, businesses, churches, and synagogues with permission of the institutions—the Veterans Collin county chapter, Temple Shalom in Dallas, Texas, and Stonebridge Methodist Church in McKinney, Texas. The advertisement requested participants between the birth years 1946 to 1964 with FB accounts, which prevented potential participants from knowing loneliness and socialization efficacy were a part of the research. Additionally, the Walden University Participation Pool was used to recruit students that are within the target age range. Individuals were only excluded if they were not within the age range of baby boomers or did not complete the necessary surveys.

Sample Size

Sample size was calculated by using power analysis program called G*Power, which calculates the smallest sample size needed to detect a relationship among the variables. To calculate this sample size, the power level, effect size, and number of

independent variables were needed for an accurate calculation. A standard power level for most research is .8 (Cohen, 1988), which was used for this calculation. A component of the power analysis is the effect size, which indicates the strength among the variables (Cohen, 1988). There are three degrees of effect size for research, which include small at .2, medium at .15, and large at .35. In psychological research, a medium effect size (.15) is acceptable (Cohen, 1988). When considering the number of independent variables, the five variables addressing FB usage were entered as number of predictors. Additionally, the standard alpha level for most psychological research of .05 was entered as the probability of the results coming to a different conclusion (Cohen, 1988). G*Power computed an a priori power analysis for the current multiple regression study with five independent variables, and a sample size of 92 participants was required to detect significance.

Procedures and Data Collection

Participants were recruited through the Walden University Participant Pool, advertisements at the local establishments listed earlier, and through advertisement on the university group FB page. To initiate participation into the study, participants consented participation by friending the research FB account named “Lindsay Ballinger.” To provide access to the participants who chose to participate from the Walden University Participant Pool, the FB page link was provided on the study information that was advertised in the participant pool page. Those that were not recruited through the Walden University Participant Pool received the link via e-mail or the messenger application on FB. The main page of the FB account had the informed consent, explaining the main

purpose of the study and the possible risks and benefits. One aspect of the informed consent clarified the need to collect and analyze all text on the participants' FB page. At any time, participants could withdraw from the study by unfriending the research FB page. Friending the research FB page allowed access to all the participants' FB page and their postings. To gain admission to the study surveys, participants were given an exclusive participant code to link them to the surveys via FB instant messenger once they consented to participation. The surveys were housed by SurveyMonkey.

Collecting Facebook Data

Once participants accepted participation, I collected data from 2 months of FB activity prior to accepting study participation. This was accomplished because once a friend request is accepted, a friend is able to see all content on the page. This allowed me to see all posts made prior to participation in study. For example, if participant A consented to participate in the study on May 20, 2017, then I viewed FB use from March 20, 2017 to May 20, 2017. By analyzing the 2 months prior to consent of study involvement, I ensured that FB activity was not altered due to participation, known as the Hawthorne effect. The Hawthorne effect is referred to the change in behaviors by participants due to being observed. By viewing past posts, I avoided participants changing posting patterns due to participation in the study. The data collection began by navigating each participant's FB page.

The next stage included sifting through the 2 months of activity by separating posts by group: (a) the number of photos that are uploaded, (b) the number of posted links that are shared from others' posts, (c) the number of status updates, (d) the number

of posts tagging other FB users, and (e) the number of FB friends. The five constructs of FB that were analyzed are theoretical to this study as a way to indicate frequency of FB use for participants. It is possible that other aspects of FB use could indicate frequency of FB use; however, they were not looked at for this study. This information was counted and given a quantifiable number. This data was transferred to a Microsoft Excel spreadsheet for organization. Other FB data that collected included number of FB friends, number of profile pictures, and number of family members identified on their profile page, as a way to understand socialization activity. This data was also transferred to a Microsoft Excel spreadsheet.

To organize the participants, each participant was identifiable by a code containing both letters and numbers. The participant name, FB page address, and identifying code was written in a notebook secured in a locked drawer for safety and confidentiality purposes. The code was also associated with the completed surveys, to ensure that each participant had completed all aspect of data collection.

The participants needed access to the study surveys. After consenting to participate, each participant was given the link to the surveys via FB messenger feature. This ensured that only me and participant had access to the process for accessing their individual surveys. The only other way this could be breached by another person is if they were added to the FB messenger information (FB, 2015), which did not occur for reasons of participant confidentiality.

Facebook Measurement

FB use has been a current topic in research, with many researchers exploring the many areas SNSs and FB can affect. This is due to the infiltration of social media into the daily structure of society and day to day activities (Anderson et al., 2012). To measure FB use, researchers have historically used different methods to categorize the data, including categorical, interval, or ratio scales (Anderson et al., 2012). Each of these methods of obtaining data is sensitive to the circumstances that each research experiment presents (Anderson et al., 2012). With the multitude of ways to obtain FB use data, there are obvious inconsistencies in the reliability and validity of the reports within research (Anderson et al., 2012). Thus, when viewing results regarding FB data, a researcher must be cautious to the implications of the results (Anderson et al., 2012).

With the growing need for research in this area, researchers continue to make efforts to improve the measurement of FB use. Suggestions exist for improved accuracy in measurement, including having a standardized norm for individualized population groups of FB users (Anderson et al., 2012). Additionally, the use of a uniform theory regarding FB use could aid in the improvement of relevant measurements (Anderson et al., 2012). Current research relies mostly on subjective accounts, which can pose a challenge with the data being valid and reliable (Anderson et al., 2012). Part of tracking this subjective data can be accomplished through tracking software, which can improve reliability and tracking; however, privacy issues have been raised with this means of data collection (Anderson et al., 2012). Regardless of the implications on reliability and validity, measuring FB usage is essential to understanding this worldwide phenomenon.

Total Amount of FB Activity

Past researchers have measured FB activity based off self-report measures, which is biased information. Participants may inaccurately report FB use by leaving out browsing time or not recognizing how much time is actually spent on FB (Junco, 2012). Within the site, FB is able to notate every post made by its users, which is helpful in identifying number of posts. To get a more neutral measure of FB use, the number of time a participant's name is used will be counted. Counting participant name presentation will be more accurate in coding and will not require inter-rater reliability.

Applying the same procedure for measuring other aspects of FB use, this study also measured the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts shared from other sources, and the number of postings tagging other people. By objectively measuring each aspect of FB posting, an accurate view of actual FB use was obtained for each participant.

Data Analysis Plan

I included a demographic questionnaire (see Appendix B) to help illustrate the depth of the research participants—gender, ethnicity, age, and how each participant heard about the study was included on the survey. This information was useful in determining generalizability of the findings as well as demonstrated the participants were the required age for participation. Demographic information was not included as independent variables due to lack of empirical support on the impact for FB use. For example, gender has been found to impact participant perceptions of FB use (Marino et al., 2016) but not

the actual quantified usage. Additionally, gender has been found to impact what is disclosed (Zivcakova et al., 2013) and how a person is presented online (Oberst, Renau, & Carbonell, 2016) but not on the frequency of FB use. Regarding race and ethnicity, similar findings have been found, with racial/ethnic groups using FB in different ways (Nadkarni and Hofmann, 2012); however, there is little research to support that gender or race/ethnicity impact overall frequency of FB use. The lack of research supports demographic information not to be included as independent variables for the current study.

Instrumentation

Revised UCLA Loneliness Scale. Russell, Peplau, and Cutrona (1980) developed the Revised UCLA Loneliness Scale to assess the perceived experience of loneliness. The measure is a 20-item self-report questionnaire that uses the Likert scale for the questions. The Revised UCLA Loneliness Scale is designed to measure both satisfaction with social relationships and overall perceived loneliness by using 10 items worded positively and 10 items worded negatively (Russell et al., 1980). The questionnaire includes questions such as “I feel in tune with the people around me” or “There are people I feel close to” (Russell et al., 1980). This measure was revised to eliminate the effects of response bias that were present in the original measure (Russell et al., 1980). Additionally, the new measure items were designed to measure overall fulfilment of social relationships (Russell et al., 1980). This measure was used in the study to determine participant loneliness. It did not take more than 20 minutes to complete and was scored based on a Likert scale and the total number, with a higher

score representing more perceived loneliness. The scale does indicate some of the questions are to be scored in reverse due to the content of the question to catch inconsistent answers.

Reliability and validity. The Revised UCLA Loneliness Scale was designed to assess loneliness and was tested against the original scale, across two studies and 162 participants (Russell et al., 1980). When looking at internal consistency, the measure has an alpha coefficient of .94 (Russell et al., 1980). Adamczyk and DiTommaso (2014) used this measure for a study on social and emotional loneliness, finding a high internal reliability of Cronbach's alpha .88. Overall, the revised measure shows convergent validity by comparison to the Beck Depression Inventory ($r = .62$) and with the Costello-Comrey Anxiety ($r = .32$ and Depression ($r = .55$) scales (Russell et al., 1980). To address discriminant validity, the scale was assessed by examining loneliness with other measures of mood. Discriminant validity was specified by social desirability not confounding loneliness (Russell et al., 1980).

Social Skill Scale. The Social Skill Scale is a 7-item scale using a 7-point Likert scale to measure social skills (Ferris, Witt, & Hochwarter, 2001). This scale was based off the premise that social skills are reflective of an individual's ability to understand social scenarios and when to exhibit certain skills with an ability to adapt and be flexible based on individual response (Ferris et al., 2001). According to Ferris et al. (2001), individuals with high social skills are more likely to understand and read people, as well as assess their own social capabilities. The questionnaire includes questions such as "I find it easy to put myself in the position of others" or "I am keenly aware of how I am

perceived by others” (Ferris et al., 2001). This measure was used in the study to determine participant socialization efficacy. This scale took approximately 10 minutes to complete and was scored by Likert scale from one being strongly disagree to seven being strongly agree. The total score is viewed, with higher scores indicating lower socialization efficacy.

Reliability and validity. This scale was used to test job performance and salary as it pertains to an individual’s ability to have social skills (Ferris et al., 2001). Ferris et al. (2001) validated the scale through the assessment of 126 workers. To authenticate the reliability and validity of the Social Skill Scale, the researchers looked at the scale for social skills and other constructs (Ferris et al., 2001). Social Skill Scale shows convergent validity by comparison to overall performance ($r = -0.64$), core task performance ($r = -0.74$), job dedication ($r = -0.46$), interpersonal facilitation ($r = -0.19$), and salary ($r = -0.46$), when comparing social skills and job performance and salary, the study to show reliability of scale (Ferris et al., 2001). Sumi (2011) used the Social Skill Scale for research concerning social problem solving and interpersonal competence. The scale was translated into Japanese and was able to report internal consistency with Cronbach’s alpha ranging from .66 to .72, which is minimally acceptable (Sumi, 2011). The measure for social skills (Study 1: $M = 4.93$, $SD = 0.71$, $\alpha = .70$; Study 2: $M = 4.79$, $SD = 0.84$, $\alpha = .71$) was compared to other measures that assess ability to interact with others socially, including The Wonderlic Personnel Test, Form 5 and the Personal Characteristics Inventory (Ferris et al., 2001). The characteristics assessed included: empathy, social anxiety, ego resiliency, sociability, extraversion, openness,

conscientiousness, agreeableness, and social desirability (Ferris et al., 2001).

Correlations were present for all constructs (Ferris et al., 2001), which illustrated the validity of the scale in measuring social skills.

Research Questions and Hypotheses

I designed the current study to determine if FB use predicted loneliness and socialization efficacy. FB use consisted of five different variables, which include: (a) the number of photos that are uploaded, (b) the number of posted links that are shared from others' posts, (c) the number of status updates, (d) the number of posts tagging other FB users, and (e) the number of FB friends. The dependent variables were loneliness and socialization efficacy. Additionally, each form of FB use was tested to determine if they predict loneliness or socialization efficacy.

Research Question 1: Do the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends predict loneliness, as measured by the Revised UCLA Loneliness Scale?

Null Hypothesis 1 (H_01): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will not predict loneliness, as measured by the Revised UCLA Loneliness Scale.

Alternative Hypothesis 1 (H_a1): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates,

the number of posts tagging other FB users, and the number of FB friends will predict loneliness, as measured by the Revised UCLA Loneliness Scale scores.

Research Question 2: Do the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends predict socialization efficacy, as measured by the Social Skill Scale?

Null Hypothesis 2 (H_02): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will not predict socialization efficacy, as measured by the Social Skill Scale.

Alternative Hypothesis 2 (H_a2): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will predict socialization efficacy, as measured by the Social Skill Scale scores.

Data Analysis

I analyzed the data through the use of two main software programs. Both survey data and the decoded FB use were entered into a Microsoft Excel spreadsheet and then imported into the Statistical Package for Social Science (SPSS), version 21. Microsoft Excel was used to organize the data, and SPSS was used to run the statistical analysis. This analysis was needed to determine potential relationships between the independent variable (frequencies of FB use) and the dependent variables (loneliness and socialization efficacy). To analyze FB use, the following aspects were examined: (a) the number of

photos that are uploaded, (b) the number of posted links that are shared from others' posts, (c) the number of status updates, (d) the number of posts shared from other sources, and (e) the number of postings tagging other people. A stepwise multiple regression statistical test was planned to be performed to assess potential relationships between each variable. For a stepwise multiple regression, all of the predictor variables would be entered initially, and then they would be taken out one by one to determine which variables provide the most significant prediction, based off the R^2 of each statistical test run at each analysis. I calculated a linear regression initially to determine if a correlation existed. No correlation between the variables was found; thus, the stepwise multiple regression was not completed. The overall statistical analysis revealed whether or not FB use predicts the dependent variables, including the significance of the individual elements making up FB use, which is represented through a .05 alpha level.

Threats to Validity

Potential exists for internal and external validity to be compromised to some degree for all studies, whether minor or severe in intensity. For example, though efforts were made to obtain a generalizable population sample, there was no guarantee that the participants were from one specific geographical area. Therefore, generalizability could have been compromised depending on demographic specifications of participants. Generalizability was better determined once all participants were recruited. Additionally, it was possible that outside elements outside of the study might influence an individual's perceptions of their loneliness and socialization efficacy at the time of questionnaire

completion. This was monitored through the internal validity of the instruments chosen to document participation perceptions.

Construct validity for this study could also have been impacted based off length of the study and instrumentation used. For example, the longer a participant took to complete the questionnaires from the time of participation acceptance increased the changes an external event could affect participant perceptions. Threats to validity have been proven to occur the longer it takes for the research to conclude, as there are increased chances for unpredictable events to occur or participants might change their mind on completing the surveys (Lund Research, 2012). Furthermore, by using Likert scaled surveys, construct validity could have been compromised, as I did not know if the marked answer expresses the true perception of each participant (Lund Research, 2012). To address the potential risk of construct validity, the scales chosen have been shown to have significant construct validity (Ferris et al., 2001; Russell et al., 1980). Additionally, FB was the only SNS being used for this study. It is possible that participants also used other SNSs, which would eliminate some data, by not including these sites. I did not know if participants were using other SNSs, which could be a confound to the study. It is important to note that there is no research to indicate using multiple SNSs would impact the use on one particular SNS. The threats to validity were minimized based on the design of the study and chosen instrumentation

Ethical Considerations

For this study, data collection depended on the required approval of Walden University's Institutional Review Board. Once this approval was obtained, participants

were recruited for the study using Walden University's Participant Pool and posted advertisements in local areas. To maintain participant anonymity from individuals not involved in the study, only I had access to the notebook that recorded participant names and codes. To ensure safety of the electronic data, the Microsoft Excel spreadsheets are stored on an encrypted external hard drive that was placed in the locked drawer with the notebook when I was not using the documents. Within the Microsoft Excel spreadsheet, the participants' names are not used, and data is only identifiable by the code provided to each participant. This maintains participant confidentiality in the event the information is viewed by an unauthorized individual. Regarding security of surveys, all the surveys within the study are held by SurveyMonkey, a web survey development cloud-based company (Waclawski, 2012). The company offers security of the surveys uploaded to this site by using a Secure Sockets Layer encryption, multimachine backup, server authentication and data encryption (Waclawski, E. (2012). The two surveys for this study were copied and pasted into a SurveyMonkey template. The UCLA Loneliness Scale survey was titled "Perceived Loneliness," and the How Are Your Social Skills survey was titled "Socialization."

An outline of the study and requirements was provided thoroughly in the informed consent. Participants were voluntary members of the study and could have withdrawn from the study at any time by unfriending the research FB page. All raw data was maintained and secured for no less than 5 years upon completion of this doctoral study per Walden University policy (Walden University, 2011). The external hard drive the data was saved on is secured in a locked safe. Participation in this study was not

likely to produce any emotional dysregulation or mental stressors requiring professional services. The participants were not compensated for involvement in this study.

Summary

The purpose of this study was to explore the possibility that a relationship exists between FB use, loneliness, and socialization efficacy. The need for this research was to expand the knowledge for baby boomers regarding FB trends. The measures Revised UCLA Loneliness Scale and SSS were administered and FB was decoded to evaluate this possibility. In this correlational design, a regression analysis was computed to provide data useful in determining whether or not relationships exist. Ethical considerations were examined and assessed for throughout the duration of this study. Walden University's IRB provided approval based on the permitted details of this research study. Chapters 4 and 5 explored and discussed the data, findings, and implications for social change and future research.

Chapter 4: Results

Introduction

This correlational quantitative study was designed to examine the significance between FB variables, loneliness, and socialization efficacy among baby boomers. I explored whether FB use could predict perceived loneliness and socialization efficacy. In this chapter, I will discuss the results in depth, using tables to illustrate the statistical test findings.

Data Collection

Recruitment was initiated through several different strategies once IRB approval was obtained, with approval number 07-13-17-0464602. The first recruitment strategy was using the Walden University's Participant Pool. The second strategy included an IRB approved flyer (Appendix A), which was placed in the Temple Shalom newsletter and on this organization's FB page. This flyer was also posted on the Richland Oaks Counseling Center FB page as well. The third form of recruitment allowed interested participants to see the research FB page through the FB friend recommendations. Recommendations will pop up on FB user pages' as "people you may know." Additionally, some participants shared the study information on their personal FB pages.

Issues with Data Collection

Throughout the process of recruiting participants, some issues arose. For instance, FB disabled the study's research page for a 24-hour period. I e-mailed FB with identification to get the page reinstated, as FB questioned my identity. Another issue involved individuals trying to launder money through the research page, which was

resolved by me unfriending these individuals and reporting them to FB. No other issues arose during the data collection process.

Collecting Facebook Data

To collect FB data, 2 consecutive months of posting were assessed from posts prior to the consent of participant involvement. For example, participant AB11 consented to participate on July 21, 2017, so data was collected from May 21, 2017 to July 21, 2017. The first step in collecting participant FB data included navigating the participant's FB page. I scrolled down the posts to view the previous 2 months of posting. The second step was to sort the types of posts into four types: number of photo uploads, number of shared posts, number of status updates, and number of posts tagging others. I went through each participant's data twice to ensure accurate reporting. This data was documented in a Microsoft Excel spreadsheet that is password protected.

To identify participant data and ensure completion of the surveys, participants were assigned a participant code that consisted of both letters and numbers. The participant codes and FB page names were documented on the same Microsoft Excel spreadsheet with the FB page data that is password protected. Additionally, the documents are stored in a password protected laptop and remains secured at all times.

Participants' Responses

Data collection began July 24, 2017 and ended on September 1, 2017. One hundred and thirty-eight participants consented to participate in the research by friending the research FB page. Of those that friended the FB page, only 97 met the research requirements and completed the survey with FB posting analysis. Participants were not

included in the final FB data if they did not meet the age requirements, did not complete the survey, unfollowed the research FB page, or were personally known by me.

Characteristics of the Sample

The sample ($N = 97$) summary regarding demographic information can be found in Tables 1 and 2. There were more female (77%) respondents than male (23%) respondents for the study. The majority of the participants were Caucasian (89%), followed by Hispanic (6%), African American (2%), Other identified race (2%), and, finally, Native American (1%). The geographic location of participants was not obtained. Due to the recruitment strategies, participants from many geographical regions had the potential to participate. Participants were required to be born between 1946–1964, thus the mean age of all participants included in the results was 59.9 years.

Table 1

Gender Statistics

	Frequency	Percent
Male	22	22.7
Female	75	77.3
Total	97	100.0

Table 2

Race Statistics

	Frequency	Percent
African American	2	2.1
Caucasian	86	88.7
Native American	1	1.0
Hispanic	6	6.2
Other	2	2.1
Total	97	100.0

Assumptions Tested for Stepwise Multiple Regression

Assumptions are a method to show validity for the statistical tests being calculated accurately that creates bias in the results when violated (Fields, 2013). For stepwise multiple regression research, there are eight assumptions (Fields, 2013). The first two assumptions pertain to the dependent variables, which are continuous, and the independent variables, which are either continuous or categorical (Fields, 2013). Both of these assumptions were met for this study. Stepwise multiple regressions are also assumed to not have autocorrelation among the residuals so that the results can be interpreted as valid (Fields, 2013). Autocorrelation is the process of finding repeating patterns among the data and adjusting the residuals based on those patterns. To address this assumption, the statistical test ran was the Durbin-Watson test, which ranges between zero and four, with a score of two indicating no autocorrelation (Fields, 2013). The Durbin-Watson test for this study calculated to 2.033, indicating this assumption was not violated. Another assumption is linearity in relation to the predictors, which was shown to be met through partial regression plots and a plot of standardized residuals against the dependent variables (Fields, 2013). The scatterplots can be viewed in appendices E and F.

The homoscedasticity assumption is designed to determine that each predictor variable has a constant variance, which includes the residuals scattered randomly around zero; invalid variance would be referred to as heteroscedasticity and would invalidate both the confidence intervals and significance tests (Fields, 2013). To address homoscedasticity, the sampling distribution must be normal, however, the data does not

need to be normally distributed (Fields, 2013). This sample was verified to have homoscedasticity through the Variance Inflation Factor (VIF), which should be a value greater than or equal to one. In this case, the VIF had a value of 1.205 for both loneliness and socialization efficacy.

Multicollinearity assumes that there is not a perfect linear relationship between multiple predictor variables (Fields, 2013). When this assumption is violated, the researcher is less confident in interpreting the meaning from the results (Fields, 2013). Multicollinearity is a problem when there is a tolerance less than 0.20, as well as a VIF over five (Fields, 2013). The sample for this study had a tolerance of 0.830 and a VIF of 1.205, which demonstrates meeting this assumption. There is no evidence that multicollinearity was violated, as tolerance and VIF were within normal limits. The seventh assumption is met when there are no deleted residuals greater than ± 3 standard deviations, no leverage greater than 0.2, and no values for Cook's distance above one. This study met this assumption. Lastly, normality must be met, which means that the sample was normally distributed. To assess for normality, I computed the Shapiro-Wilk statistic and examined the sample histogram to illustrate normality. The Shapiro-Wilk statistic was 0.923 for loneliness and 0.982 for socialization efficacy, which demonstrates normality since the values are greater than $p = 0.05$, thus confirming normality exists for this sample. Due to all the assumptions being met, the data can be considered valid for analysis.

Responses to the Revised UCLA Loneliness Scale

The Revised UCLA Loneliness Scale is composed of 20 statements to which respondents are to suggest how true the statement is based off four options, including never, rarely, sometimes, and often. The Revised UCLA Loneliness Scale is scored by the sum of the total responses as specified by the answer key. The total possible score on the Revised UCLA Loneliness Scale is 80, with the range of scores possible between 20-80. A score closer to 80 indicates a higher perceived degree of loneliness. The Revised UCLA Loneliness Scale mean score was 35.74 ($SD = 11.15$). The range of scores (see Table 3) reported by participants for the Revised UCLA Loneliness Scale was 20 to 66. These values indicate participants rarely choose answers that would be considered extreme, which would indicate extreme loneliness.

Table 3

Revised UCLA Loneliness Scale Frequency Statistics

Scores	Frequency	Percent
20	2	2.1
21	2	2.1
22	1	1.0
23	4	4.1
24	2	2.1
25	2	2.1
26	7	7.2
27	5	5.2
28	4	4.1
29	2	2.1
30	2	2.1
31	8	8.2
32	1	1.0
33	4	4.1
34	7	7.2
35	5	5.2

(table continues)

Scores	Frequency	Percent
36	2	2.1
37	3	3.1
38	1	1.0
39	2	2.1
40	2	2.1
42	4	4.1
44	3	3.1
45	1	1.0
46	1	1.0
47	2	2.1
48	2	2.1
49	1	1.0
50	2	2.1
52	1	1.0
53	1	1.0
55	1	1.0
56	1	1.0
57	1	1.0
58	2	2.1
60	1	1.0
64	1	1.0
65	1	1.0
66	1	1.0
	97	100.0

Responses to the Social Skill Scale

The Social Skill Scale is composed of seven possible responses for respondents to indicate how true the statement is, with answers ranging from strongly disagree to strongly agree. The Social Skill Scale is scored by the sum of the total responses as specified by the answer key. The total possible score on the Social Skill Scale is 49, with the range of scores possible between 7-49. A score closer to 49 indicates a higher perceived degree of socialization efficacy. The Social Skill Scale mean score was 36.41 ($SD = 8.85$). The range of scores (see Table 4) reported by participants for the Social

Skill Scale was 22 to 48. These values indicate participants rarely choose answers that would be considered extreme, which would indicate extreme socialization efficacy.

Table 4

Social Skill Scale Frequency Statistics

Scores	Frequency	Percent
22	2	2.1
26	1	1.0
27	2	2.1
28	1	1.0
29	6	6.2
30	2	2.1
31	6	6.2
32	6	6.2
33	5	5.2
34	8	8.2
35	6	6.2
36	11	11.3
37	1	1.0
38	5	5.2
39	2	2.1
40	5	5.2
41	7	7.2
42	5	5.2
43	6	6.2
45	4	4.1
47	3	3.1
48	3	3.1
	97	100.0

Research Questions and Hypotheses

Research Question 1: Do the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends predict loneliness, as measured by the Revised UCLA Loneliness Scale?

Null Hypothesis 1 (H_{01}): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will not predict loneliness, as measured by the Revised UCLA Loneliness Scale.

Alternative Hypothesis 1 (H_{a1}): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will predict loneliness, as measured by the Revised UCLA Loneliness Scale scores.

Research Question 2: Do the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends predict socialization efficacy, as measured by the Social Skill Scale?

Null Hypothesis 2 (H_{02}): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will not predict socialization efficacy, as measured by the Social Skill Scale.

Alternative Hypothesis 2 (H_{a2}): The number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends will predict socialization efficacy, as measured by the Social Skill Scale scores.

Data Analysis Results

To determine whether a relationship existed between the independent variables and the dependent variables, a standard linear regression correlation was run to determine any possible significance. Pearson's r coefficient of correlation measures linear correlation between two variables with a value closer to ± 1 indicates a strong significant relationship. The Pearson's r coefficient of correlation was thus calculated to establish whether a relationship existed between the independent variables and loneliness and socialization efficacy. Subsequently, for both dependent variables, FB use was not significantly correlated with the dependent variables, thus a lack in quantity or quality of data can hinder significant findings for a stepwise regression (Fields, 2013). No relationship was present, thus reinforcing that a stepwise regression was not necessary to calculate.

Research Question 1

Research question 1 was established to determine if the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends predicts perceived loneliness. None of the FB use variables were found to be significantly correlated to loneliness. There were no significant correlations (see Table 5) between the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB were not proven to correlate with loneliness.

Therefore, the null hypothesis could not be rejected for the hypothesis regarding loneliness.

The software used to run the statistical test, SPSS, was not designed to compute a stepwise regression if there are not any independent variables that are significant to the dependent variable. A linear regression was run instead of the stepwise regression. Specifically, a stepwise regression is designed to determine which variables explain the distribution the best. Because no linear correlation existed in the data, a stepwise regression was not necessary to compute. Thus, all of the independent variables were too weakly correlated to the dependent variable to explain the distribution of the data. The R^2 value of .03 (see Table 6) associated with this data suggests that the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends accounts for 3% of the variation in loneliness, which means that 97% of the variation cannot be explained by FB use alone. For a statistic to show significance, the confidence interval would not contain the value of 0, which would show that a difference in the variables was established. For this study, the confidence interval associated with the analysis does contain 0, which means the null hypothesis is accepted. Essentially, there is no association between number of FB use and loneliness.

Table 5

Correlations for loneliness

		Loneliness	Tagged	Status	Shared	Photos	Friends
Pearson correlation	Loneliness	1.000	-.106	-.069	.048	-.088	-.015

(table continues)

Tagged	-.106	1.000	.412	.360	.175	.384
Status	-.069	.412	1.000	.443	.099	.048
Shared	.048	.360	.443	1.000	.058	.025
Photos	-.088	.175	.099	.058	1.000	.146
Friends	-.015	.384	.048	.025	.146	1.000

Note. $N = 97$.

* $p < .05$.

Table 6

Loneliness model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
.174	.030	-.023	11.282	.030	.566	5	91	.726	2.021

Note. Predictors: (Constant), FB friends, Shared posts, Uploaded photos, Status updates, Tagged posts.

Dependent Variable: DVloneliness

Research Question 2

Research question two was established to determine if the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends predicts perceived socialization efficacy. None of the FB use variables were correlated to socialization efficacy. The Pearson's r coefficient of correlation (see Table 7) was calculated to determine if a linear correlation exists between FB use and socialization efficacy. Due to the lack of significance in the correlations, the stepwise regression was not calculated, because there would be no significant predictors, if no linear correlations between the variables are present (Fields, 2013). Thus, the null hypothesis was not rejected for the hypothesis on socialization efficacy. There are no

significant correlations between the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, with socialization efficacy.

As with the first research question, a stepwise regression was not calculated, due to the lack of statistical support to perform this test. Specifically, there was no correlation between any of FB use variables and socialization efficacy. Though no significant correlations were present, the data was assessed through a linear regression analysis for impact of FB use on the variation among the responses. The R^2 value of .03 (see table 8) associated with this linear regression model suggests that the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends explains for 3% of the disparity in socialization efficacy, which means that 97% of the variation cannot be explained by FB use alone. Like the analysis for the first research question, the confidence interval contained a 0, which indicates that no statistically significant difference in the mean exists. Because the confidence interval for this regression analysis does contain 0, the null hypothesis can be accepted.

Table 7

Correlations for socialization efficacy

		Socialization	Tagged	Status	Shared	Photos	Friends
Pearson correlation	Socialization	1.000	.030	.095	.007	-.107	.013
	Tagged	.030	1.000	.412	.360	.175	.384
	Status	.095	.412	1.000	.443	.099	.048
	Shared	.007	.360	.443	1.000	.058	.025
	Photos	-.107	.175	.099	.058	1.000	.146
	Friends	.013	.384	.048	.025	.146	1.000

Note. $N = 97$.

* $p < .05$.

Table 8

Socialization efficacy model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
.158	.025	-.029	5.932	.000	.041	1	91	.839	2.104

Note. Predictors: (Constant), FB friends, Shared posts, Uploaded photos, Status updates, Tagged posts.

Dependent Variable: DVsocialization

Summary

The findings for this study, a correlational stepwise regression, indicated that both null hypotheses should be kept, and the alternative hypotheses should be rejected. In further detail, there is not a significant relationship between the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends and loneliness. Additionally, there is not a significant correlation between the number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends and socialization efficacy. The findings, conclusions, limitations, and recommendations for future action are discussed in depth in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to explore the relationship among FB use, loneliness, and socialization efficacy among baby boomers. FB use was determined by assessing participants' number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends. Previous researchers have examined multiple problems that exist for baby boomers, including increased levels of loneliness and lack of socialization as they age (Barker, 2012; Shankar et al., 2011). Some researchers have gone as far as suggest the increase in baby boomer use of SNSs is due to loneliness (Chang et al., 2015). This study was designed to expand the understanding of FB use among this cohort as it relates to loneliness and socialization efficacy.

Interpretation of the Findings

In the literature review, I discussed the research regarding baby boomers and the problems this cohort face. I determined that, despite what is known regarding loneliness and socialization efficacy among baby boomers, there are inconsistent findings on the relationship among baby boomer FB use and perceived loneliness and socialization efficacy. Findings for the current study revealed no relationship between loneliness and FB use, which included number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends. Additionally, the findings regarding socialization efficacy also showed no significant relationship. When

controlling FB use, the variance within the results could only be explained by 3% for both loneliness and socialization efficacy scores.

According to SLT, learning is a process that occurs cognitively and can occur through observation, which does not have to be directly reinforced (Bandura, 1977). SLT was the basis of this study regarding FB use, perceived loneliness, or socialization efficacy. SLT is used to explain how a person may learn new ways of socialization, like FB, with or without any positive reinforcement from the new behavior. Thus, it is possible that baby boomers may learn to use FB for socialization but not necessarily in response to a psychological deficit like loneliness. It is possible other factors influence baby boomer FB use such as observing others using FB as a valuable form of socialization, as indicated by SLT. It is also plausible that FB use is determined by the ease of use. FB is a user friendly communication forum, which is supported by Tennant et al. (2015)'s findings that baby boomers use easy sites. It is equally plausible that different factors, like accessibility or Internet connection, influence a person's incentive to use FB. In fact, those without access to the Internet cannot afford the technology or are too intimidated to learn (Mates, 2009). These baby boomers might be more susceptible to loneliness or lack of socialization. Those baby boomers that are online reported a better connection to their family members (Mates, 2009).

It is apparent that FB is an environment for communication that baby boomers are using more, partially because FB provides the opportunity to share information, document current events, connect electronically with family and friends, or reconnect with old friends (Anderson et al., 2012). FB use can reinforce users' face-to-face

relationships, as it has been found that socialization styles are similar both online and offline (Ivcevic & Ambady, 2013). Since FB can reinforce face-to-face relationships, it is possible that baby boomer FB use can be explained by the need, or desire, to strengthen existing face to face relationships, as opposed to the dependent variables studies.

Revised UCLA Loneliness Scores

Participants in this study were given the Revised UCLA Loneliness Scale to assess their individual perceived level of loneliness. The range of possible scores for this measurement ranges from 20-80, and the majority of the scores reported by participants ranged from 23-66 (Table 3). When looking at the value of r , Goodwin and Leech (2006) indicated r will increase when there is more variability among the scores. In this study, the variability of the scores based off mean and standard deviation was narrow. In fact, the majority of participant scores indicated no perceived loneliness.

Researchers have found that loneliness increases among this cohort (Shankar et al., 2011). The scores on the Revised UCLA Loneliness Scale did not indicate extreme loneliness, though a few participants did endorse not feeling lonely. The mean score, 35.74, on this measure indicated that the majority of those who participated in the study were not lonely. With a range of scores from 20-80, scores ranging from 20-30 indicate no loneliness, and scores of 30-50 indicate mild loneliness. Additionally, anything scored 50-60 would be considered moderate loneliness, and anything scored over 60 would indicate severe loneliness. The majority of the scores endorsed less loneliness overall, approximately 86.6% scoring 50 or below. Though some participants did report

higher levels of loneliness, it is unclear if it is representative of the entire baby boomer cohort.

Restriction of range can explain the lack of correlation between the variables. Restriction of range occurs when a narrow range of scores occur for one or more variables being studied. For this study, a limitation on the data has impacted the range of scores. Range restriction can create a situation where a correlation is more difficult to detect among the key variables of a study. The problem with restriction of range is that the sample can be limited due to the narrow variance for one of the variables being analyzed. The standard rules regarding a standard range include the standard deviation equal to one-fourth of the range for the dataset and the majority of scores lying within two standard deviations from the mean. In this study for loneliness, the mean score of 35.74 and standard deviation of 11.15 would not meet these standard rules, which confirms a restricted range. As indicated, this range restriction has decreased the possibility of any correlation being detected among the variables by possibly suppressing what correlation is present.

Social Skill Scale Scores

Participants in this study endorsed mid-range scores regarding their perception of their social skills. The range of scores was from 22-48, with the majority of scores between 29-43 (see Table 4). For the Social Skill Scale, scores ranging from 7-21 indicating mild socialization efficacy, 22-36 indicating moderate socialization efficacy, and 37-49 indicating severe socialization efficacy concerns. There is evidence that the majority of participants feel they have good socialization efficacy. Most participants

(58.8% of the sample) responded as more socially efficacious, while the other percentage of participants reported severe concerns with socialization efficacy. As with the loneliness scale, participants were not made aware that they would be taking the Social Skill Scale specifically. Lastly, a few participants reported that the questions regarding socialization efficacy were confusing and difficult to interpret. This also could have impacted responses, although it is not clear in what regard.

Researchers have found that socialization decreases as this cohort ages (Grosik, 2013); however, it is uncertain what percentage of the entire baby boomer generation report socialization efficacy. Since the norms for the baby boomer population are not clearly defined, it is also not known if the sample was an accurate representation of baby boomers. Prior research has indicated that baby boomers report lower levels of socialization efficacy (Chang et al., 2015); the current findings indicating higher levels of socialization efficacy could be due to the sample not accurately representing all baby boomers. Additionally, like for the variable loneliness, a restricted range occurred for socialization efficacy. As the mean of 36.41 and standard deviation of 5.85, the responses for socialization efficacy do not meet the requirements for a standard range set, despite the sample meeting all the statistical assumptions. Again, a restricted range can impact a correlation existing among the variables by reducing the range of scores for one variable the possibility of detecting a significant correlation is reduced.

Other Explanations for Findings

For this study, it is possible that too many predictor variables were used or that the sample size was not large enough, thus causing an exaggerated model with no

predictor variable to address either research question. When looking at multiple variables to measure similar construct, like FB use, it can be effective to be more selective on the number of variables chosen (Fields, 2013). Additionally, when multiple variables are chosen to represent a similar construct, increasing the sample size might improve the statistical analysis (Fields, 2013). An exaggerated model can occur when the sample size is not large enough to offset the number of independent variables (Fields, 2013). In this study, this could have affected the findings for both loneliness and socialization efficacy, as both dependent variables were subject to the five independent variables representative of FB use construct.

It has been established that controversy exists regarding the positive or negative impact that SNSs may have on an individual's psychological well-being (Anderson et al., 2012). It is possible that baby boomers were using FB for different motivations besides improving perceived loneliness and socialization, as this was found to be true among undergraduate students (Lemieux et al., 2013). Bergman et al. (2011) found individuals use SNSs to connect offline relationships to online, while Tennant et al. (2015) found SNSs are used to gather information. It is possible baby boomer FB use is not an attempt to improve any negative psychological factors, like loneliness and socialization efficacy.

Limitations of the Study

External Validity

The participants for this study were recruited through the Walden Participant pool, flyers, and FB. Walden University has a global range of students, and FB is global in origin as well. Due to the geographical flexibility, it is possible that participants were

a representation of baby boomers all over the United States and potentially other countries as well. However, geographical location was not assessed, so it cannot be assumed that the sample was an accurate representation either. The sample of participants included mostly women, with about 77% being female. This makes the results less generalizable towards male baby boomers. It might be argued that the high numbers of female participants impacted the results; however, there is no literature to support that gender differences affect frequency of FB use (Marino et al., 2016). In order for the results to be truly generalizable regarding gender, the percentage of males and females of the baby boomer generation would need to be known. Potentially, the scores might have been altered if more males were included in the sample.

Internal Validity

When assessing participant FB use, the Hawthorne effect would not be present for this study. The researcher viewed FB use patterns from past posting patterns to avoid potential posting changes due to observation. Despite attempts to limit the Hawthorne effect, social desirability may have influenced participant responses to both the Revised UCLA Loneliness Scale and Social Skill Scale. Past researchers have been able to find that anonymity can decrease social desirability bias (Ahern, 2005); however, participants can still feel pressure to respond in socially acceptable manners (Krumpal, 2013). In this study, the participants were not truly anonymous, as I had their FB profile name. This may have created an environment where participants were aware of social desirable behaviors.

Vague guidelines for what constitutes higher FB use versus lower FB use may have impacted the relationship between the variables. Though FB use was assessed by quantifying participants' number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends, there is no universal system to determine frequencies of FB use. This creates a lack of expectation for what is considered increased FB usage. Due to limited empirical support on FB frequencies, it is unclear if one independent variable impacted other independent variables used to assess FB usage, which could have impacted the lack of relationship found in the results. For example, it was assumed that participants would be honest with their FB use; however, there is always a risk of lack of honesty associated with self-report surveys. As another factor, some participants may prefer one form of posting over another, regarding the independent variables. Without uniformity among FB use patterns, it is possible the variables chosen to represent FB use frequency was not an accurate representation of FB use.

Recommendations for Future Research

Though FB originated in 2004, it is still a relatively new phenomenon with limited research regarding the psychological impact over prolonged or frequent FB usage. Currently, this study is one of the first studies to assess FB use through number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends for the baby boomer population. Future studies on this topic should develop

methodology to be able to quantify FB use with fewer variables, as too many variables can impact results negatively by creating a lack of degree of freedom. The degree of freedom is the calculation designed to indicate constraints imposed on the sample (Fields, 2013). It would also be advantageous to have baseline expectations for FB frequencies. Expectations regarding FB use could allow for a clearer picture of minimal, medium, and excessive FB use. These expectations could impact future research by measuring this variable through a true measure of FB use.

Future studies regarding the baby boomer population should assess for alternative factors that could have influenced overall FB usage. I was unable to support loneliness and socialization efficacy as factors involved in baby boomer FB usage. It is possible Internet connection, retirement, or other psychological factors impact baby boomers' intentions behind learning this new socialization forum. It would be interesting to see if retirement or boredom are motives for this aged cohort.

Implications

Despite the lack of significance among the variables, the results contribute to the fund of knowledge regarding baby boomer FB use as they enter the age of increased global problems. This particular study implies that FB may not have the negative impact that many researchers have argued. Currently, there are 2.01 billion monthly active users (FB, 2016). When FB first originated as a communication forum, the overall view of prolonged use had negative implications. As time has passed and FB has become a common entity, social media has become another shared form of socialization.

Social Change

The controversy between the positive and negative psychological implications of FB use was discussed in Chapter 2, along with the problems that exacerbate the baby boomer population. As new technologies are developed, like FB, the benefits and limitations with regards to prolonged use is unknown. In fact, there is sometimes skepticism when new technologies are introduced into society. Similar skepticism has occurred for the introduction of other technologies like newspapers, radio, television, home computers, laptops, the Internet, and email (Martin & Gentry, 2011). Interestingly, baby boomers are the cohort that has had to adapt to newer technologies, more than any other aged cohort (Martin & Gentry, 2011). The impact these technologies have had on the psychological well-being of its users are only revealed over time. There is still more to be uncovered about the psychological impacts of FB use for baby boomers.

Addressing Popular Opinion: Baby Boomers, Loneliness, and Social Isolation

FB use among the baby boomer generation has increased over the last decade, and the motivation behind this change is unknown. It was proposed that FB use would predict perceived loneliness and socialization efficacy, due to the increased rates of loneliness and social isolation experienced by these individuals. Specifically, it has been reported 17% of Americans aged 65 and older report loneliness, and an additional 26% of those adults are at risk of death due to their loneliness (Dowd, 2017). Dowd (2017) also indicated that 6 million baby boomers are housebound and socially isolated, which is a large percentage of the 77 million baby boomers living in the United States (Grubb, 2014). In this study, there were approximately 13 participants that reported higher levels

of loneliness, which is 7% of the participant sample. This percentage is similar to the reported numbers of baby boomers reporting loneliness in the United States. Though these results are similar to reported numbers of lonely baby boomers, it is unknown if the sample was truly representative of all baby boomers. This is partially due to not assessing for geographical location of the population. Thus, these results support the increasing numbers of baby boomers reporting loneliness and social isolation.

In the current study, I did not find any significant relationship among FB variables with loneliness or socialization efficacy. Though a relationship did not exist in this study, the lack of relationship is important to the increasing research on baby boomers and FB use. It has been shown the vast problems that can impact large number of the baby boomer generation. The current study findings have shown there may be other factors related to FB use, as it is still unclear what FB frequencies are considered to be mild, moderate, and severe use. Further research on this topic could yield different findings, if FB use is quantified in a different manner or a larger sample is obtained. Based on the large numbers of lonely baby boomers, further research in this area would be instrumental for understanding the change FB and other SNSs have had on this group of adults.

Misleading data. *Social Media Today* highlighted a story regarding the myths regarding baby boomer and social media use (Grubb, 2014). The article was designed to uncover many ideologies that many have regarding baby boomers and social media. Specifically, the author illustrates that baby boomers are not afraid of technology, do know how to use it, are literate to use sites like FB, and do not believe using social media

is for those that are antisocial (Grubb, 2014). Additionally, the article addressed ideologies of SLT in how baby boomers learn how to navigate social media and stay connected to role models of their age (Grubb, 2014). It is unclear if these myths provide an accurate representation of the baby boomer FB user, as there were no references that could be verified by the reader. This is an example of how information can be misleading. Though the article did not cite references, the current study illustrated that many baby boomers are using FB, yet it is uncertain as to how much compared to other cohorts. It would be interesting to see how baby boomer FB use compares to other factors or situational stressors. This would allow researchers to uncover even more information as to the psychological implications of FB use. This study could lead to positive social change by expanding the narrow scope of knowledge on questions about baby boomers and the problems they face through aging. Though FB use was not correlated with loneliness and socialization efficacy, these findings provide information on FB use. Future research can explore different factors in an attempt to address the impact of loneliness and socialization efficacy on baby boomers.

Conclusion

This study was unable to indicate that a relationship exists between FB use, which included: number of photos that are uploaded, the number of posted links that are shared from others' posts, the number of status updates, the number of posts tagging other FB users, and the number of FB friends, loneliness and socialization efficacy. A lack of relationship yielded important insights into baby boomer FB use. There is an overall lack of research regarding psychological factors and motives influencing FB use among the

baby boomer population, especially with such high numbers of these individuals engaging in this form of socialization. This study was able to address the gap in the literature regarding baby boomers' socialization issues. There are hopes that this research will prompt future studies to attempt to further the fund of knowledge on how to address the global problems that baby boomers face and how FB may play a role for this group of individuals.

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Appendix A: Participant Recruitment Advertisement

Interested in Helping Counselors, Therapists, and Researchers Understand Facebook

More?

Requirements:

- Born between 1946 and 1964
- Have a FB page

For questions, informed consent, or participations, contact Lindsay Ballinger

Lindsay.ballinger@waldenu.edu

Appendix B: Demographic Survey Questions

1. Please enter the participant code consisting of a number and a letter assigned by the researcher.
2. What is your race?
 - a. African-American
 - b. Asian
 - c. Caucasian
 - d. Native American
 - e. Middle Eastern
 - f. Hispanic/Latino
 - g. Other
3. What is your age?
4. What is your gender?
 - a. Male
 - b. Female
5. How did you find out about the study?
 - a. Walden Participant Pool
 - b. Temple Shalom flier
 - c. Richland Oaks Counseling Center FB page
 - d. Referral from FB/FB friend
 - e. VFW

Appendix C: Revised UCLA Loneliness Scale

Answers are rated from 1 (never), 2 (rarely), 3 (sometimes), and often (4). Items marked with an * should be reversed (1=4, 2=3, 3=2, and 4=1) before scoring.

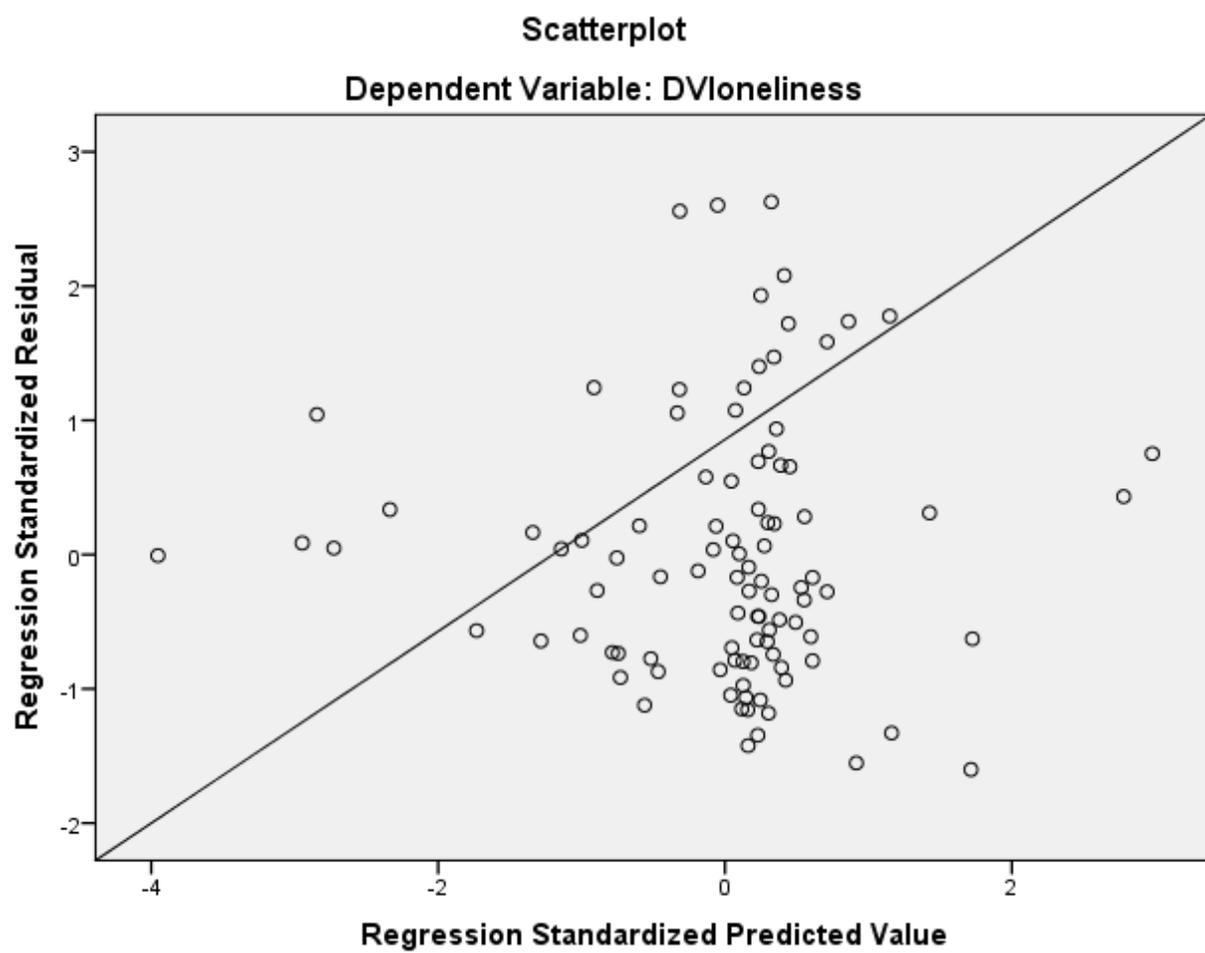
1. I feel in tune with the people around me.*
2. I lack companionship.
3. There is no one I can turn to.
4. I do not feel alone.*
5. I feel part of a groups of friends.*
6. I have a lot in common with the people around me.*
7. I am no longer close to anyone.
8. My interests and ideas are not shared by those around me.
9. I am an outgoing person.*
10. There are people I feel close to.*
11. I feel left out.
12. My social relationships are superficial.
13. No one really knows me well.
14. I feel isolated from others.
15. I can find companionship when I want it.*
16. There are people who really understand me.*
17. I am unhappy being so withdrawn.
18. People are around me but not with me.
19. There are people I can talk to.*
20. There are people I can turn to.*

Appendix D: Social Skill Scale

Respondents will be asked to rate items on a 7 point Likert type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

1. I find it easy to put myself in the position of others.
2. I am keenly aware of how I am perceived by others.
3. In social situations, it is always clear to me exactly what to say and do.
4. I am particularly good at sensing the motivations and hidden agendas of others.
5. I am good at making myself visible with influential people in my organization.
6. I am good at reading others' body language.
7. I am able to adjust my behavior and become the type of person dictated by any situation.

Appendix E: Scatterplot for Loneliness



Appendix F: Scatterplot for Socialization Efficacy

